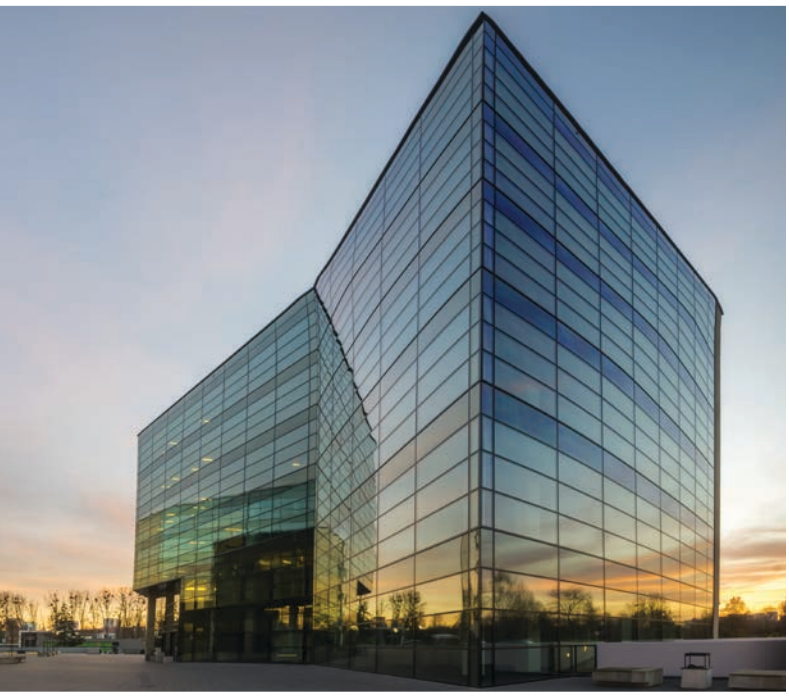
MITSUBISHI ELECTRIC

VRF City Multi Product Catalogue



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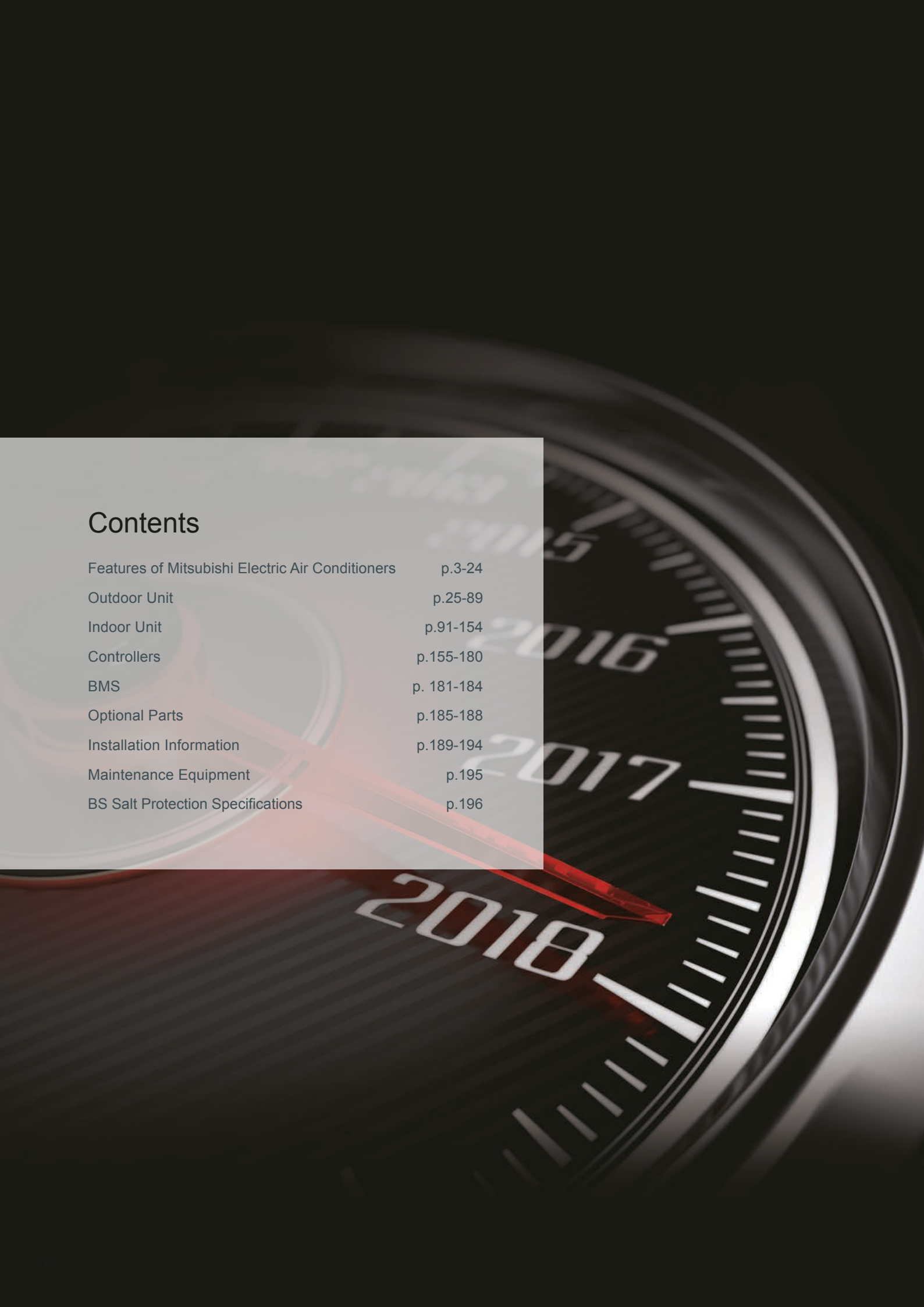
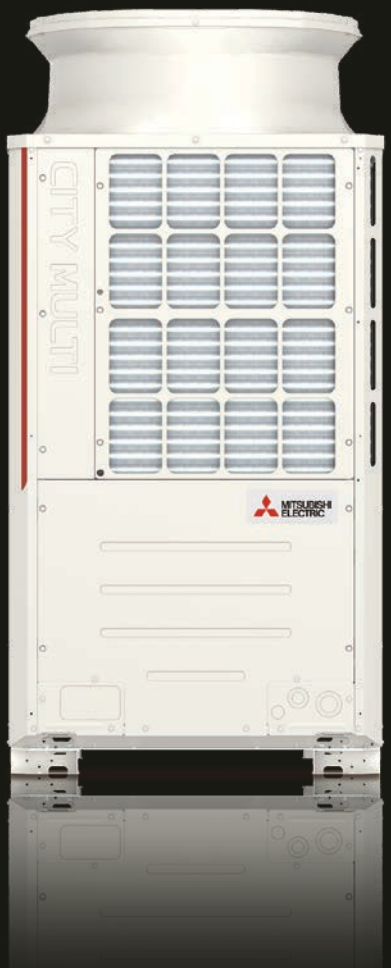


Contents

To the next stage of air conditioning

Introducing a new series of air conditioners with improved basic functions and advanced compressor, well streamlined fan that meet energy-saving requirements.

Mitsubishi Electric continues to improve air conditioning quality and provide its customers with next-stage solutions.



- Energy Saving
- Flexible Noise Setting
- New Design
- New BC controller

New CITY MULTI

The new structural design has a 4-face air induction design and improved core components, such as compressor and fan, significantly improving energy-saving performance.

Energy Saving

Various key components have been improved, enhancing energy efficiency performance and meeting customers' requirements.

Flexible Noise Setting

All models in the series are equipped with low-noise operating mode as a standard feature. Choose from five different patterns for the optimum setting to meet the low-noise requirements.

New Design

New modern design blends in well with most building architectures.

New BC controller

The BC controllers for R2 have been remodeled. Up to 11 sub-BC controllers can be connected to the main BC controller.

R2 (Heat Recovery) Series

Simultaneous Cooling and Heating

R2 series		
	PURY-P YNW-A (-BS)	PURY-EP YNW-A (-BS)
	PURY-P YSNW-A (-BS)	PURY-EP YSNW-A (-BS)

Y (Heat Pump) Series

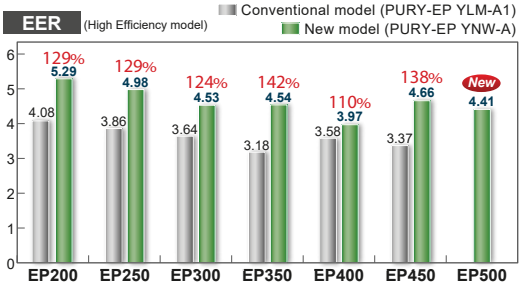
Cooling or Heating

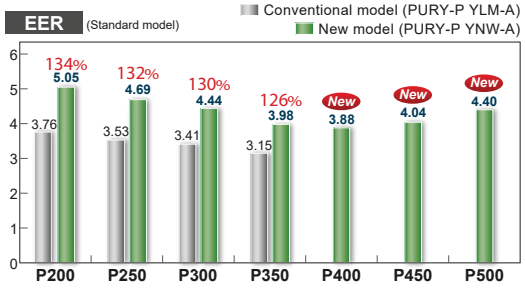
Y series		
	PUHY-P YNW-A (-BS)	PUHY-EP YNW-A (-BS)
	PUHY-P YSNW-A (-BS)	PUHY-EP YSNW-A (-BS)

Energy Saving

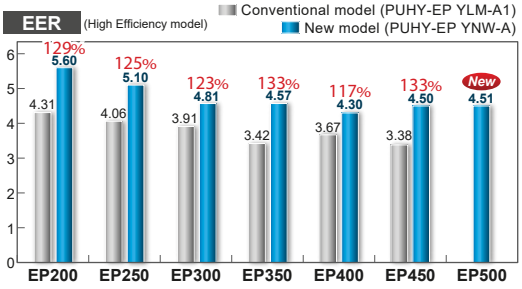
Compared to the existing models, the all single modules in YNW Series have improved EER.
EER of the 14HP model (PURY-EP350YNW-A) is higher by about 42%. All these models ensure high energy saving.

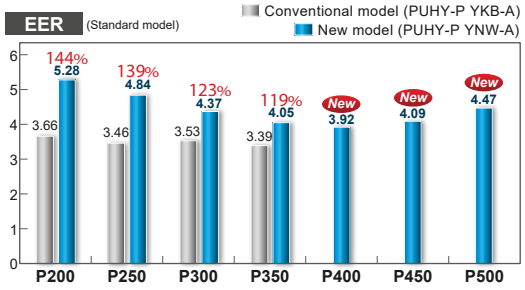
R2 Series





Y Series





*Comparison under the nominal condition.

Flexible Noise Setting

New

R2 Series EP R2 Series P Y Series EP Y Series P

The low-noise mode, which conventionally only had one pattern, has been increased to four patterns so that a mode can be selected from a total of five patterns, including the rated pattern. The low-noise mode has four patterns 85%, 70%, 60% and 50% in respect to the fan speed. This can be set with the outdoor unit's DIP switch. The pattern can be selected according to the customer's requests when low-noise operation is required.

*In the low noise mode, the capacity will reduce.

New Design

New

Conventional model (YLM) New model (YNW)

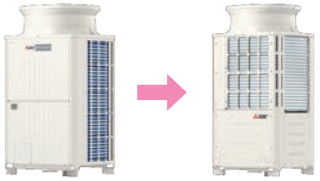
* All product images are standard type.

To realize higher efficiencies, the structure was changed to use a four-sided heat exchanger.
The result is an appearance that is more sophisticated which can enhance the design of building.

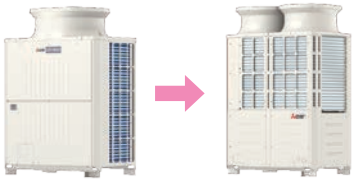
Comparison of modules

R2 Series EP R2 Series P Y Series EP Y Series P

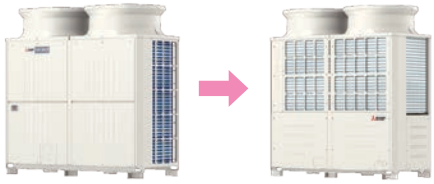
S



L



XL



Capacity increased up to 44HP
New 16~20HP single module available

R2 Series EP R2 Series P

Newly available single module
Increased capacities up to 44HP
Use of module one size smaller than conventional unit

Single modules of up to 20HP have been added to R2-Series.
Single modules are smaller, with L modules replacing the EP400 and P450 modules, reducing installation space by approximately 29%.

■R2-Series

R2 Series P Single

	8HP	10HP	12HP	14HP	16HP	18HP	20HP
	P200	P250	P300	P350	P400	P450	P500
YLM-A	S	S	L	L	—	—	—
New YNW	S	S	S	L	L	L	XL

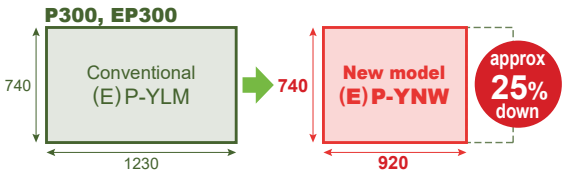
R2 Series EP Single

	8HP	10HP	12HP	14HP	16HP	18HP	20HP
	EP200	EP250	EP300	EP350	EP400	EP450	EP500
YLM-A1	S	S	L	L	XL	XL	—
New YNW	S	S	S	L	L	L	XL

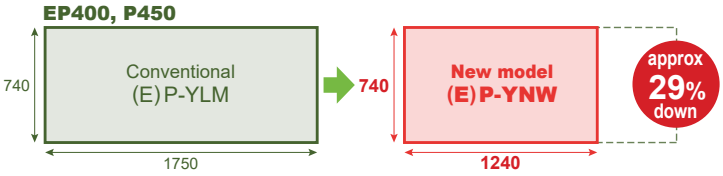
R2 Series P Combination

	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP
	P200	P250	P300	P350	P400	P450	P500	P550	P600	P650	P700	P750	P800	P850	P900	P950	P1000	P1050	P1100
YLM-A	—	—	—	—	S+S	S+S	S+S	S+L	L+L	L+L	L+L	L+L	L+L	L+XL	XL+XL	—	—	—	—
New YNW	—	—	—	—	S+S	S+S	S+S	S+S	S+S	S+L	L+L	L+L	L+L	L+L	L+L	L+XL	XL+XL	XL+XL	XL+XL

P300, EP300 L → S



EP400, P450 XL → L (Single)



New BC controller

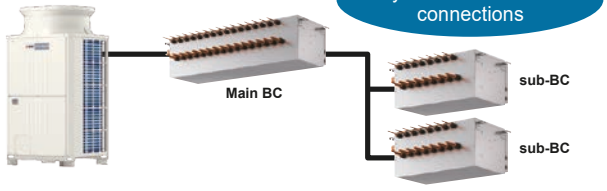
New

Sub-BC controller connections increased

R2 Series EP R2 Series P

Only two sub-BC controllers could be connected to a main BC controller in previous models. Up to 11 sub-BC controllers can now be connected to the new BC controller, allowing for more flexibility in system design.
The line-branching method enables the creation of system designs that use less refrigerant.

Conventional model



New model

Key Components

New 1 Compressor with centrifugal force canceling mechanism

R2 Series EP | R2 Series P | Y Series EP | Y Series P

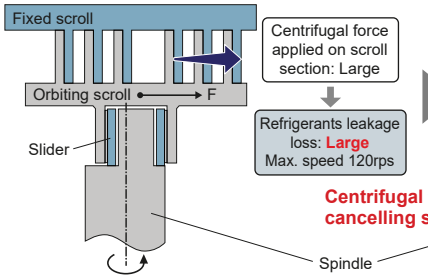
The compressor, known as the heart of the air conditioner, has been newly developed. A new centrifugal force canceling mechanism and a new multi-port mechanism have been developed. In addition, we have mounted a high-efficiency motor. The synergetic effect of these new technologies increases the compressor performance and efficiency, and also helps to improve the performance of the outdoor unit.

Centrifugal force canceling mechanism (8 to 14HP)

The structure of the scroll compressor causes a centrifugal force during operation. Conventionally, that centrifugal force is applied onto the scroll section. This causes refrigerant to leak, and restricts the increase in rotational speed to a maximum of 120rps.
With the new compressor, a new structure (centrifugal force canceling mechanism) has been mounted to suppress the centrifugal force. This mechanism successfully suppresses the centrifugal force generated at the scroll section, reduces refrigerant leakage losses, and increases the compressor efficiency. The maximum rotational speed has been increased from the conventional 120rps to 140rps.
This new mechanism also speeds up the start of operation, and enables operations such as preheat defrost operation and the smooth auto-shift startup mode.

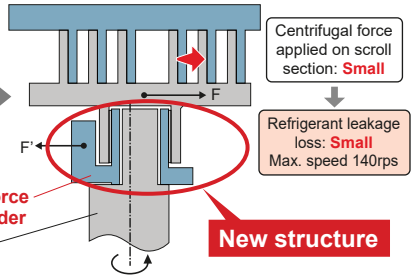
Conventional mechanism

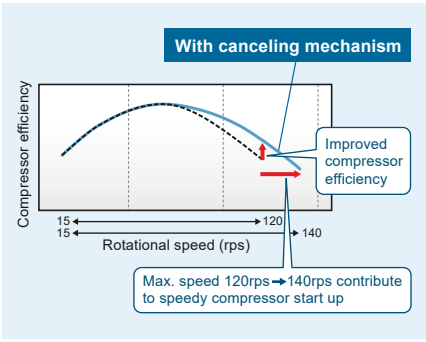
Large loss Vortex pressing load is high.



Centrifugal force canceling mechanism

Small loss Vortex pressing load is low.



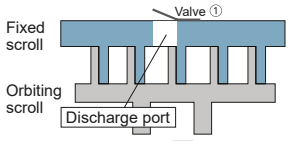


Multi-port mechanism

With the scroll compressor, the distance of the compression process in the scroll is usually fixed, so over-compression occurs during low loads and low rotation.
The new compressor is equipped with two sub-ports in addition to the conventional discharge port to reduce this over-compression loss during low loads. In operation conditions having a low compression rate, the distance in the compression process is kept short, successfully avoiding unnecessary compression, and contributing to efficient partial load operation.

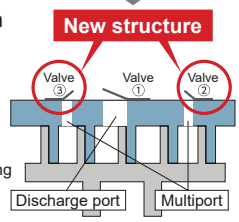
Conventional structure

		Operation pattern	
		Partial load	Rating, high pressure difference
Main port	Valve①	Open	Open



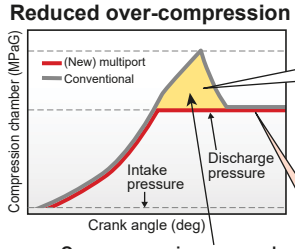
New structure with multi-port design

		Operation pattern	
		Partial load	Rating, high pressure difference
Main port	Valve①	Open	Open
Sub-port	Valve②	Open	Closed
	Valve③	Open	Closed



The sub-port is opened during partial load operation to discharge the over-compressed gas.

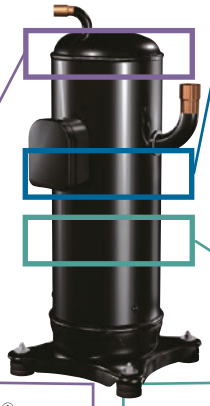
Reduced over-compression loss (multi-port)



Over-compression area can be eliminated in this structure

Conventional model
Conventionally, gas refrigerant is compressed to a set pressure, and then lowered to the target discharge pressure at which it is discharged. This causes drive losses from over-compression.

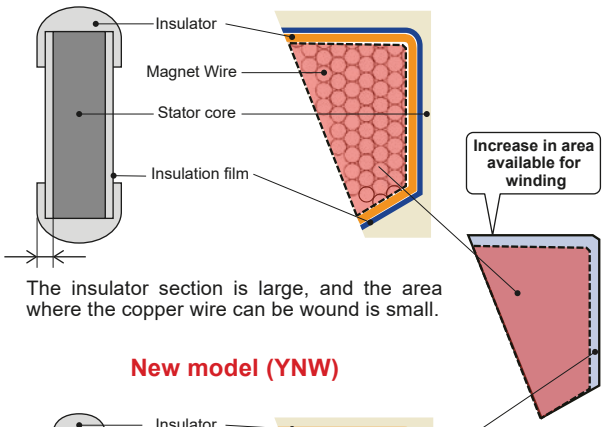
Multiport
When the target discharge pressure is reached, the multiport opens, and the gas refrigerant is discharged. This reduces drive losses caused by over-compression.



Improved high-efficiency motor

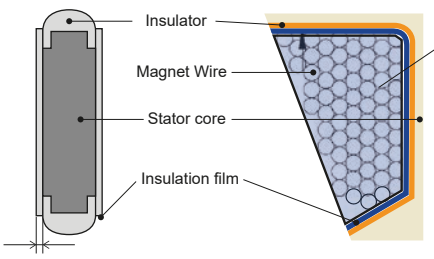
The insulator section that traditionally created a dead space is eliminated by insulating the motor's stator film. Since winding can be set in that section, the winding area can be increased by approx. 9%. The wire diameter has also been increased by two ranks, so the resistance between terminals is reduced, and the insulation distance is shorter. This improves the motor's operation performance and contributes to high-efficiency operation of the compressor.

Conventional model (YLM)



The insulator section is large, and the area where the copper wire can be wound is small.

New model (YNW)



The motor can be wound in the section where the insulator was, and a larger wire diameter can be used.

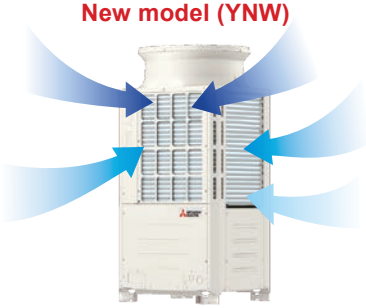
New 2 Four-sided air intake structure

On the conventional models, a U-shaped heat exchanger was installed over the rear surface. In the new model, the four-sided heat exchanger has been mounted on the upper-part of the module which is near the fan. This allows air to be taken in efficiently, and increases the heat exchanger's efficiency.

Conventional model (YLM)

The three-surface suction and the vertically long heat exchanger attenuate the suction rate at sections distanced from the fan.

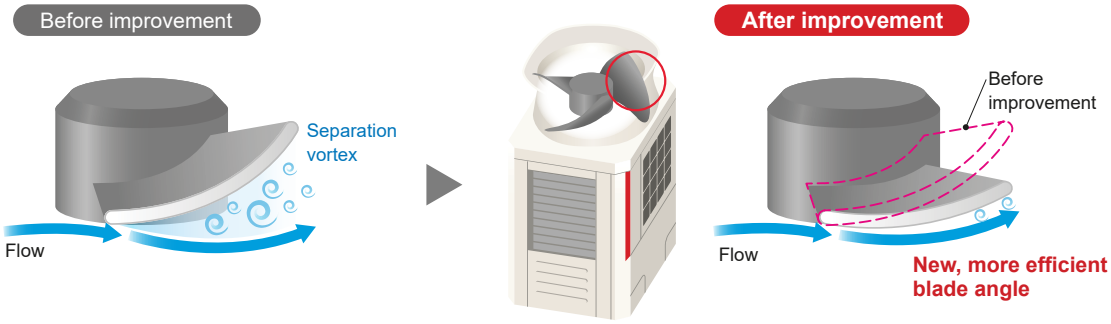
New model (YNW)



Efficient air suction is achieved by placing the heat exchangers on the upper part. The multiplier effect created by increasing the number of suction surfaces from three surfaces to four surfaces greatly improves the operation efficiency.

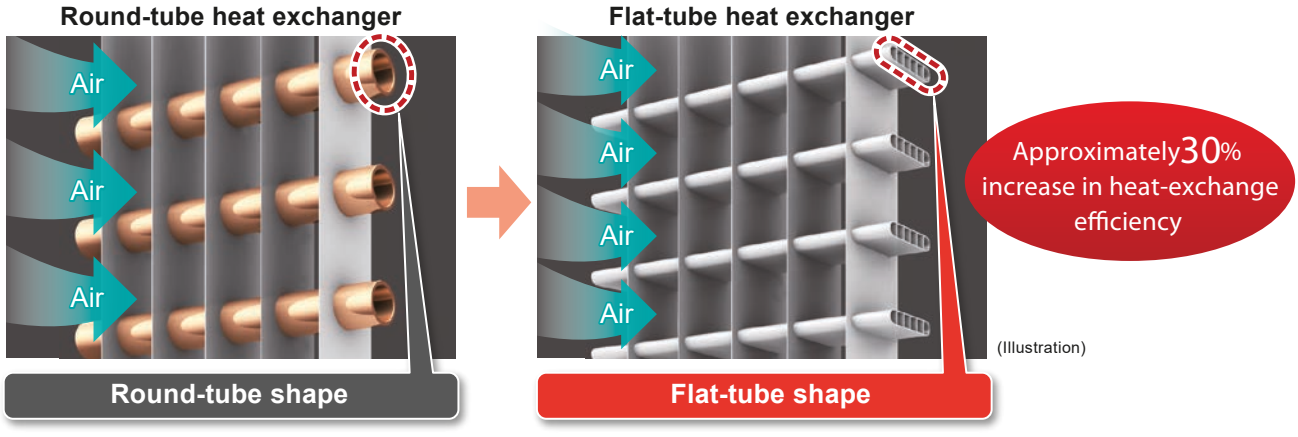
New 3 Provided with well streamlined fan

A new fan which is suitable for 4-face suction has been developed. A newly designed winglet is provided on the periphery of each blade to operate efficiently.
In addition, the blade angle is determined properly according to the flows on the inner and outer peripheries of the blade to optimize the blowing efficiency.



4 Flat-tube heat exchanger

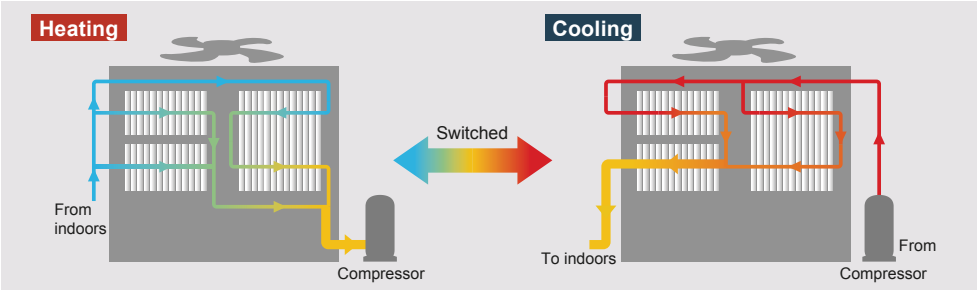
In addition to the round-tube heat exchanger models, flat-tube heat exchanger models are available. The use of flat tubes increases the number of piping stages while maintaining the same size for heat exchanger. The inside of the tube is divided into thin compartments, which increases the area of contact between refrigerant and air, thereby increasing heat-exchange effectiveness and significantly improving energy-saving performance. The flat-tube heat exchanger improves heat-exchange effectiveness by approximately 30% compared to round-tube heat exchangers.



New 5 Adaptive flow control EP (~18HP)

Changed to a refrigerant circuit flow for both heating and cooling.

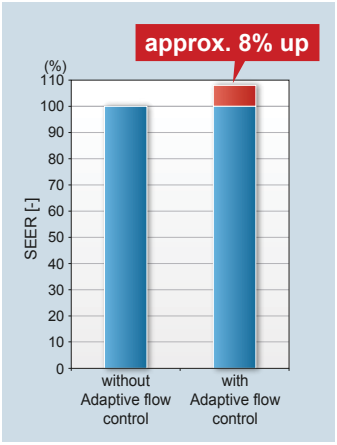
Adaptive flow control



- During cooling, a serial flow path (flow through two of the heat exchangers split into three, and then through the last heat exchanger) is used. With fewer paths, the refrigerant flow rate is increased and the heat conductivity performance is improved. In addition, the drop in heat exchanger capacity for per path prevents the refrigerant stagnation and improves the condensing performance of the heat exchanger during cooling.
- During heating, a parallel flow path (flow refrigerant simultaneously through all heat exchangers split into three) is used. By flowing the refrigerant to all paths at the heat exchanger inlets (by increasing the number of paths compared to cooling), pressure loss in the heat exchanger is reduced, and the evaporator performance is improved.

* Increase in evaporator performance is compared to using the original number of cooling paths.

Comparison of EP300 (Y-Series) SEER (cooling) with and without variable path

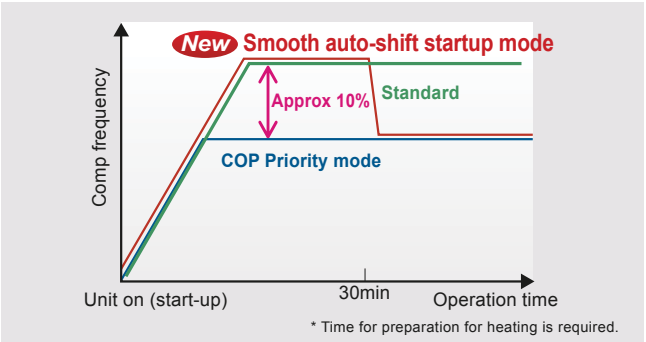


Key Functions

New 1 Smooth auto-shift startup mode

R2 Series EP R2 Series P Y Series EP Y Series P

Smooth auto-shift startup mode, a new operation mode on the outdoor unit, can now be selected in addition to the conventional COP Priority and Capacity Priority modes. In order to heat the room faster, Capacity Priority mode runs for 30 minutes when heating operation starts. The unit then switches to COP Priority mode to increase energy-saving efficiency. This enables both improved comfort and energy savings.



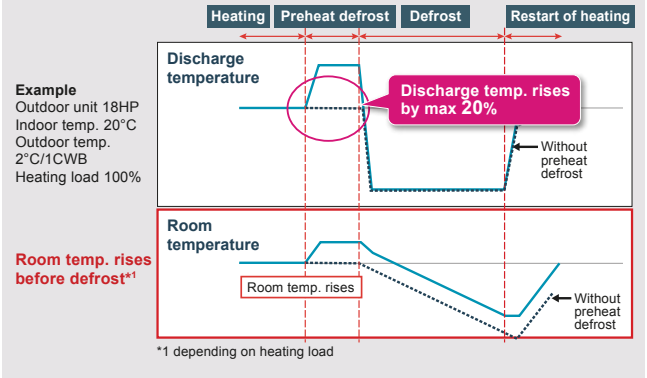
* Time for preparation for heating is required.

New 2 Preheat defrost operation

R2 Series EP R2 Series P Y Series EP Y Series P

The new outdoor unit is equipped with a preheat defrost operation that raises the discharge temperature of the air before beginning defrost operation. This contributes to raising the room temperature before the start of defrost operation and prevents room occupants experiencing a chilling sensation.

Preheat defrost ON/OFF



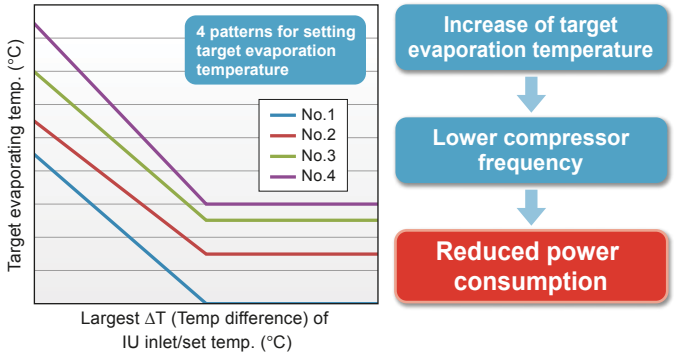
*1 depending on heating load

3 Energy-efficient evaporation control

R2 Series EP R2 Series P Y Series EP Y Series P

Since the evaporation temperature is kept constant regardless of the air-conditioning load in normal operation mode, energy loss could occur at times of low air-conditioning load. The new models are equipped with a function for selecting the target evaporation temperature*1 according to the air-conditioning load.
The compressor frequency is reduced according to conditions in the room to control the evaporation temperature.
This can curb excessive power consumption and realize energy savings*2.

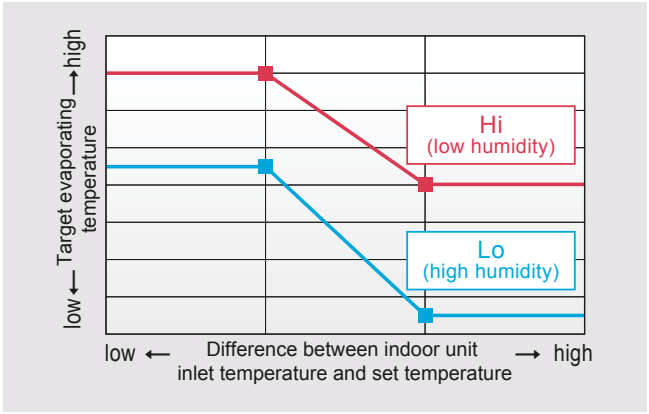
*1 To change the evaporation temperature setting, it is necessary to change the setting of the DIP switch on the outdoor unit.
*2 When the difference between the indoor unit air-intake temperature and the actual temperature setting exceeds 1°C, the air conditioner returns to normal mode.



4 High sensible heat operation

The evaporating temperature is controlled according to room temperature and humidity, and refrigerant pressure.

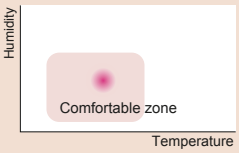
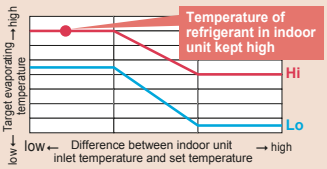
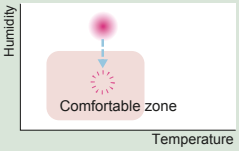
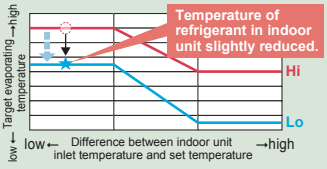
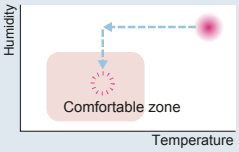
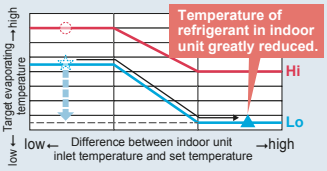
■ Image of evaporating temperature control during high sensible heat operation in full cooling mode



With high sensible heat operation mode activated, air conditioners consume less energy,*1 thereby realizing cost savings.
If a locally procured humidity sensor is installed, the evaporating temperature of the outdoor unit can be controlled optimally as shown below according to the difference between the indoor unit inlet temperature and set temperature.
A wide range of temperature settings are available, from a low evaporating temperature close to the temperature for normal operation to a high evaporating temperature to realize energy savings.

*1 Unlike in evaporating temperature control mode, once the air conditioners are set in high sensible heat operation mode, they are kept running at a reduced evaporating temperature.

Temperature and humidity conditions

	Room state	Condition of outdoor unit	Zone	Evaporating temperature control
Comfortable temperature and humidity **High sensible heat operation**		Comfortable and energy-saving operation even at low compressor rotating speed		
High humidity		Compressor rotating at medium speed to reduce humidity		
High temperature and humidity		Compressor rotating at high speed to reduce temperature and humidity		

New 5 Maintenance data retrieval via USB

Operation data was retrieved from conventional models using the maintenance tool. On the new model, the data can be retrieved quickly via USB*1. It is unnecessary to carry the personal computer in which the maintenance tool has been installed, reducing field operation time and improving convenience. Software can be rewritten via USB, while data for up to 4 days and the 5 minutes after an error has occurred can be stored in the the USB memory device*2.

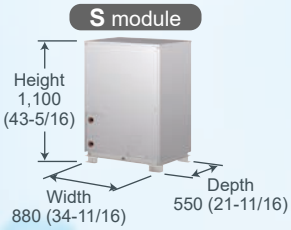
*1 In the case of OC-IC maximum configuration
*2 USB memory devices conforming to USB2.0 can be used.

PQHY/PQRY Series

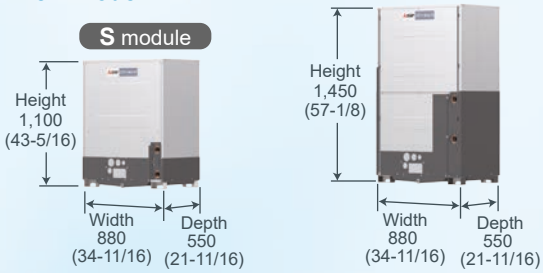
Increased capacities of single-module units and WR2 units

Single or combination-module units are available to meet various installation conditions and capacity requirements.

■ Conventional model



■ New model



mm (in.)

<WY series>

Newly available single-module units

			P200	P250	P300	P350	P400	P450	P500	P550	P600	P650	P700	P750	P800	P850	P900
NEW	PQHY-P Y(S)LM-A	Single	S	S	S	L	L	L	L	L	L						
	PQHY-P Y(S)HM-A	Single	S	S	S												
NEW	PQHY-P Y(S)LM-A	Combination					S+S	S+S	S+S	S+S	S+S		L+L	L+L	L+L	L+L	L+L
	PQHY-P Y(S)HM-A	Combination					S+S	S+S	S+S	S+S	S+S	S+S+S	S+S+S	S+S+S	S+S+S	S+S+S	S+S+S

<WR2 series>

Newly available single-module units

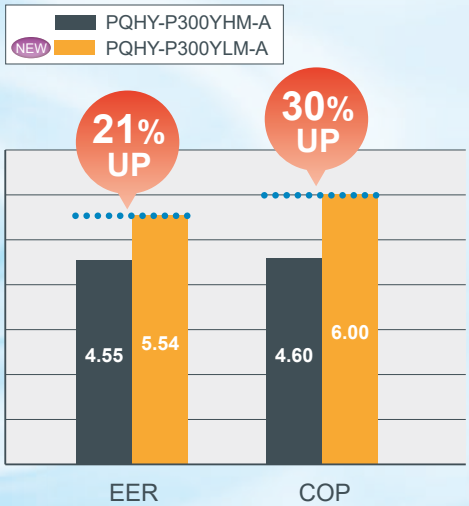
Increased capacities up to P900

			P200	P250	P300	P350	P400	P450	P500	P550	P600	P650	P700	P750	P800	P850	P900
NEW	PQRY-P Y(S)LM-A	Single	S	S	S	L	L	L	L	L	L						
	PQRY-P Y(S)HM-A	Single	S	S	S												
NEW	PQRY-P Y(S)LM-A	Combination					S+S	S+S	S+S	S+S	S+S		L+L	L+L	L+L	L+L	L+L
	PQRY-P Y(S)HM-A	Combination					S+S	S+S	S+S	S+S	S+S						

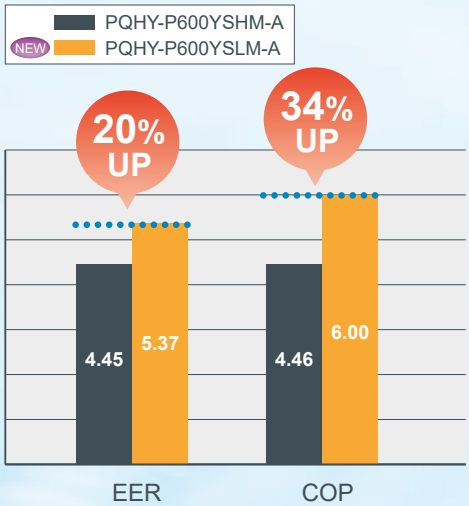
Improved EER and COP

Greatly improved EER and COP when compared to previous models

■ Comparisons of new and old single-module P300 units



■ Comparisons of new and old combination-module P600 units

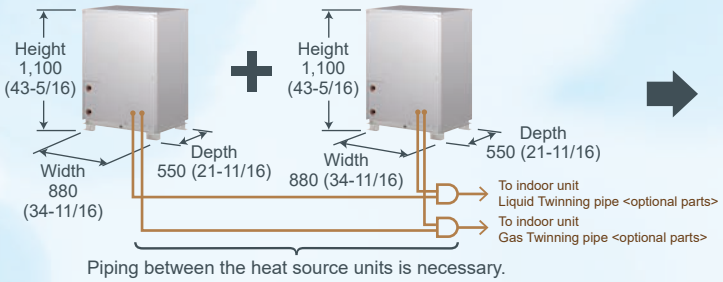


Advantages of increased capacity of single-module units

Reduced piping work

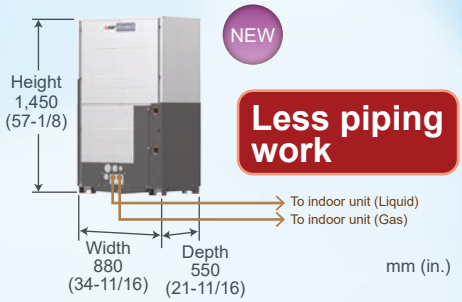
Capable of covering up to P600 (24 HP) with a single module.

■ P400YSHM (WY/WR2 series)



Piping between the heat source units is necessary.

■ P400YLM (WY/WR2 series)



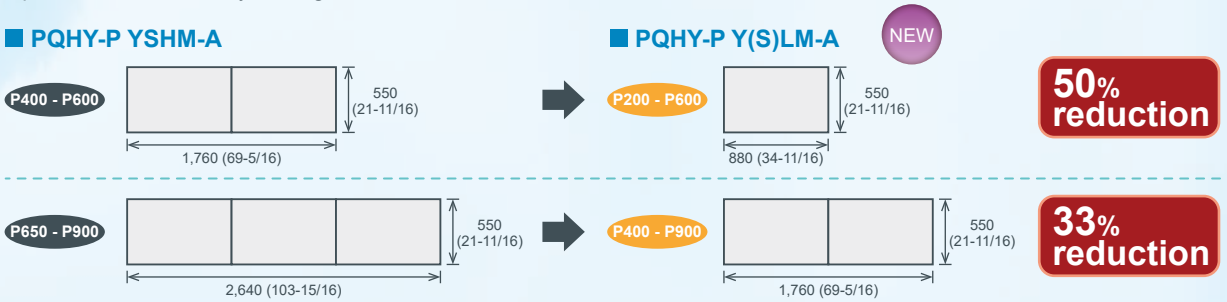
mm (in.)

Reduced footprint

Footprint is reduced not only for single-module units but also for combination-module units.

■ PQHY-P YSHM-A

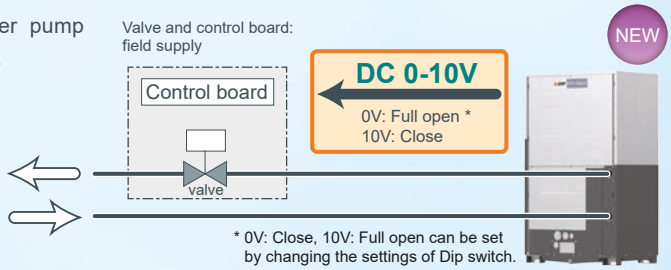
■ PQHY-P Y(S)LM-A



Output signal (0-10V) for water flow rate adjustment controller

Improve system energy consumption by reducing the water pump consumption by changing water flow volume during partial load.

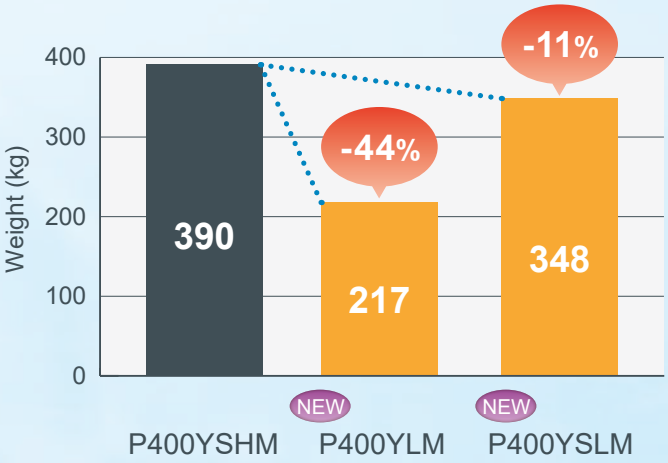
- Control of water flow rate
- Control output voltage (0-10V) for adjustment of valve operating [0V: Full open,10V: close]
- Voltage at 0 volt: Even when power down, water will continue to circulate.



Light weight

The reduction in weight leads to easy transportation and installation.

<Weight comparison>

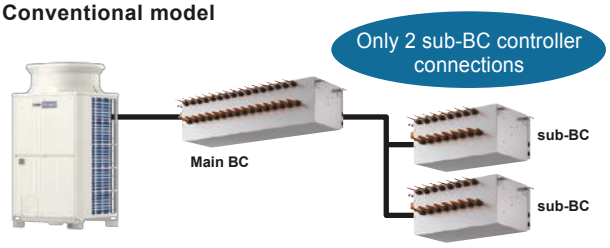


New BC Controller

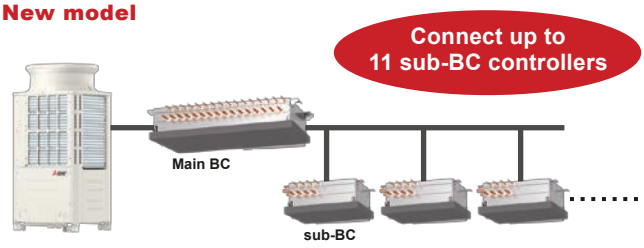
1 Sub-BC controller connections increased

Only two sub-BC controllers could be connected to a main BC controller in previous models. Up to 11 sub-BC controllers can now be connected to the new BC controller, allowing for more flexibility in system design.
The line-branching method enables the creation of system designs that use less refrigerant.

Conventional model

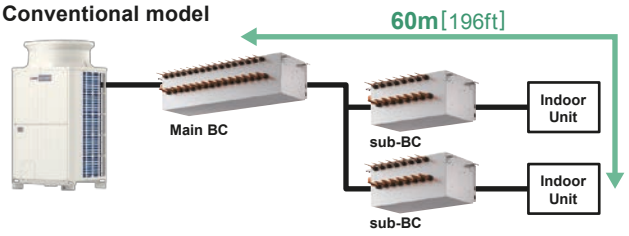


New model

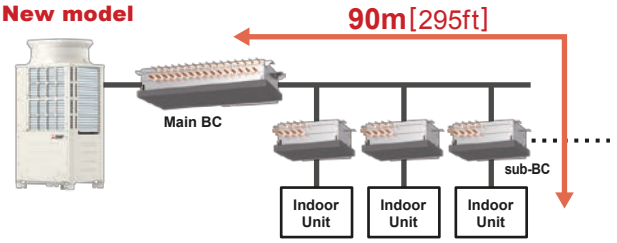


2 Greater flexibility in refrigerant piping design

Conventional model



New model



The piping length from the main BC controller to indoor units has been increased from 60m[196ft] to 90m[295ft], providing greater flexibility in piping design.

*Sub-BC controllers should be used when piping length is 60m[196ft.] or more.

3 Main BC controller with increased connection capacity

The connection capacity of the main BC controller has been increased compared to previous controllers, allowing system designs with fewer units. The KA type, which can be connected to units up to 44 HP, has been added to the product lineup to handle outdoor units with increased capacities.

Conventional model

Type	Outdoor unit capacity
G	~14HP
GA	~26HP
HA	~36HP

Type	Total indoor unit capacity
GB/HB(sub)	~14HP
Sub-BC(Total)	~18HP

New model

Type	Outdoor unit capacity
J	~14HP
JA	~36HP
New KA	~44HP

Type	Total indoor unit capacity
KB(sub)	~14HP
Sub-BC(Total)	No limits*

* Depending on the outdoor unit HP

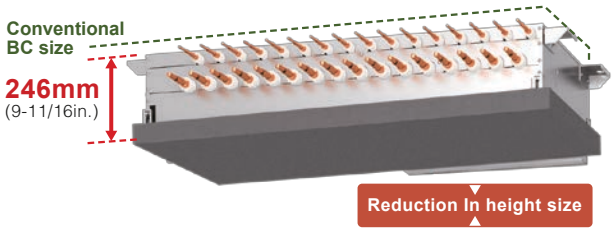
The JA type can handle up to the conventional GA and HA ranges.

The KA type, which can be connected to units up to 44 HP, has been added to the product lineup to handle outdoor units with increased capacities.

4 Reduced height

With an average lower height of 40.5mm compared to previous sub-BC controllers, the new design can be installed in ceilings with limited space.

* Servicing space is required.

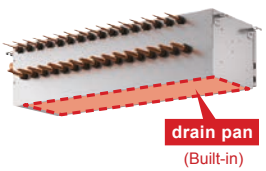


5 Improved accessibility to lower surface and serviceability

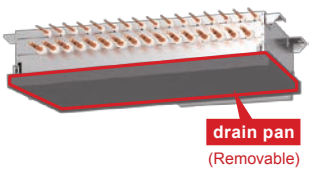
Previously, the drain pan on conventional models was built into the bottom and could not be removed. The drain pan of the new model is installed on the lower surface like a cover, making it easily removable for service from below. Serviceability is therefore improved compared to conventional units, which need to be serviced from the side.

* Service space is required.

Conventional model

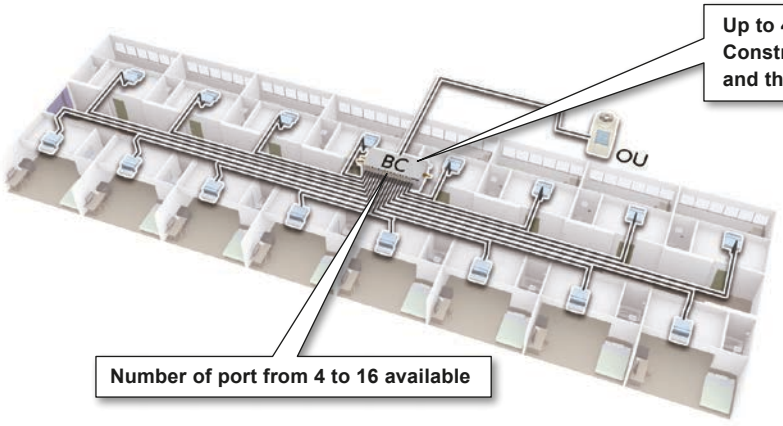


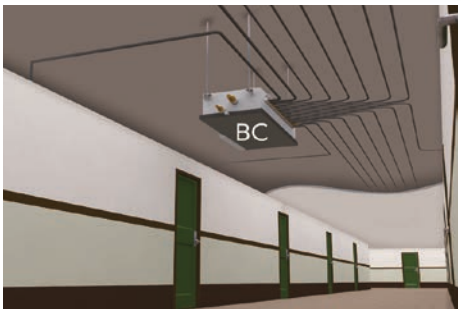
New model



BC controller design can be selected from various patterns depending on use.

(1) Pattern using multi-branch main BC controller



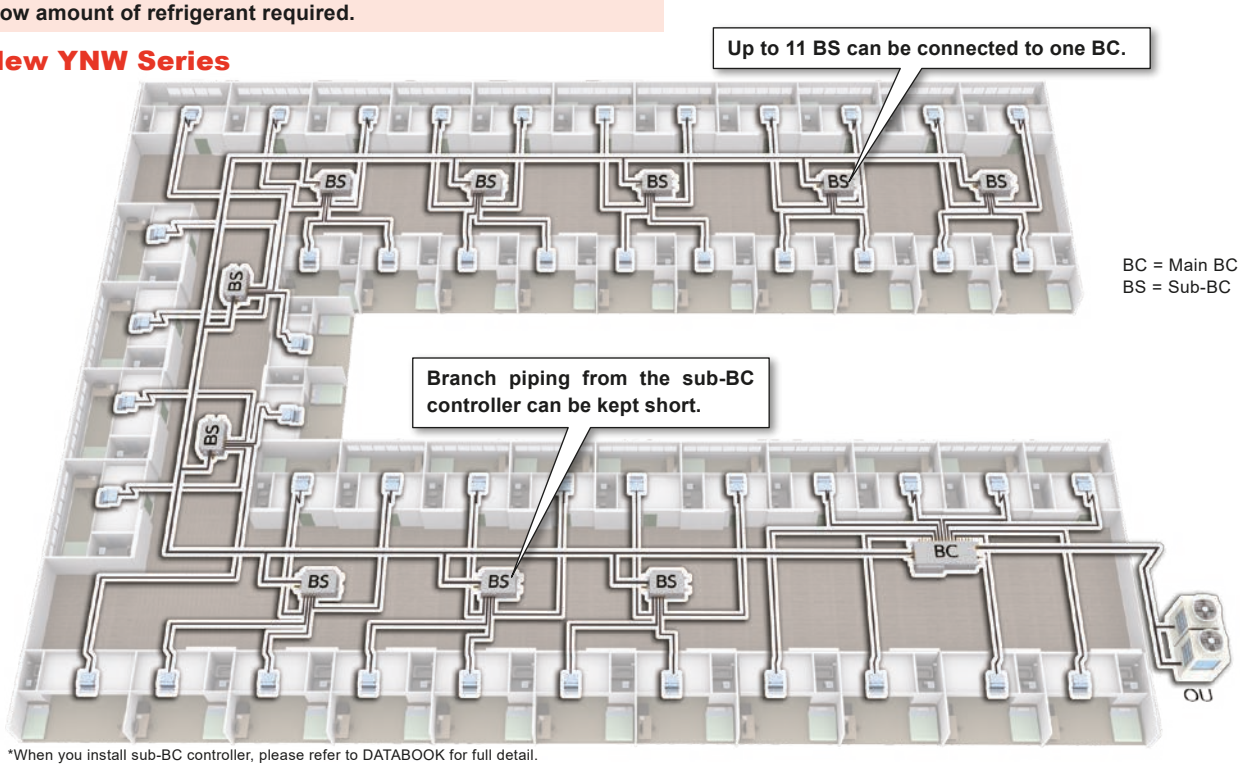


(2) The line-branching method with a main BC controller and sub-BC controllers New

The number of sub-BC controllers that can be connected has been increased from 2 to 11, and sub-BC controllers can be now installed closer to the indoor units, thus reducing both the total branch length compared to conventional models and the amount of refrigerant used.

- **Low number of piping connections, even across many rooms.**
- **Low amount of refrigerant required.**

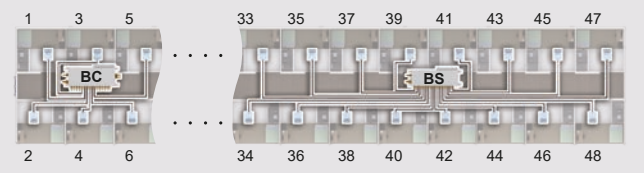
New YNW Series



*When you install sub-BC controller, please refer to DATABOOK for full detail.

Comparison of piping design for 48 rooms

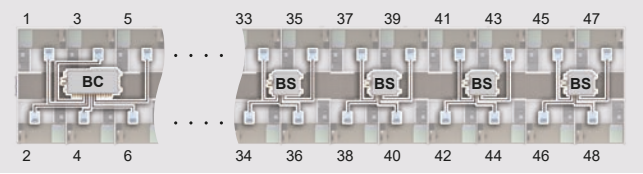
Conventional model



Branch piping from sub-BC controller is long

*The 16 branch BC controller is an older model, and is not possible in this design.

New model



The sub-BC controller can be installed near the indoor units, so the branch piping can be greatly reduced. This also reduces the length of system piping, enabling using less refrigerant design.

Overall branch piping length reduced

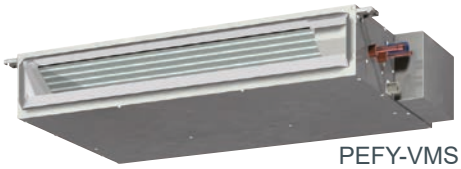
Refrigerant amount reduced by 20%*

* Outdoor unit: 36 HP
* Indoor units: P25 × 48 units
* BC controllers: Existing HA + HB (16-branch) × 2 units
  New JA + KB (4-branch) × 10 units

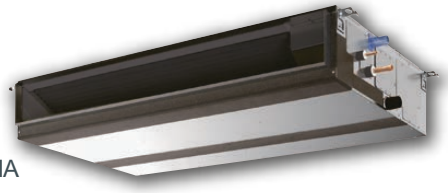
Sophisticated Yet Simple Technology

Reliable

Designed and manufactured to the highest standards, the CITY MULTI range offers one of the most reliable air conditioning systems available. Simple to install and easy to maintain, this range provides ideal solutions you can trust to protect your investment.



PEFY-VMS1



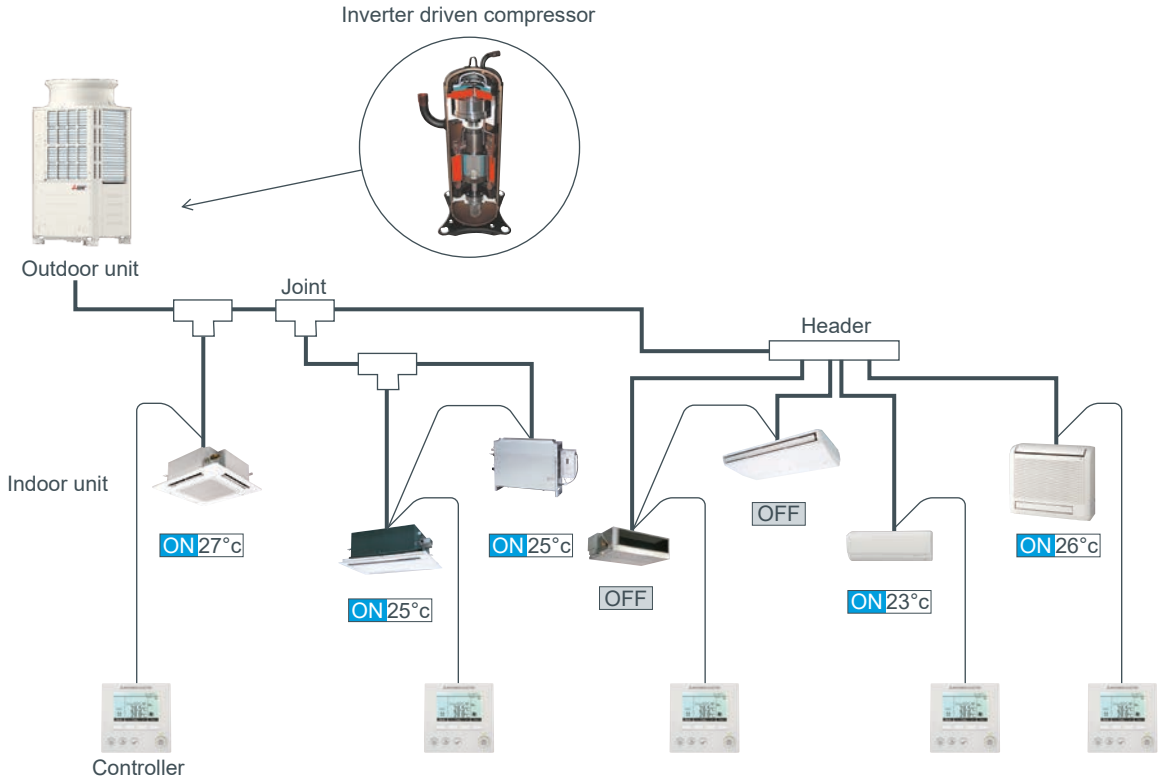
PEFY-VMA

PFFY-VKM

Our Answer to VRF

Mitsubishi Electric sets the boundaries of VRF technology with the CITY MULTI range, which is available using R410A refrigerant with zero ODP (Ozone Depletion Potential). The range has been specifically designed for today's building requirements and addresses key market issues such as energy efficiency, adaptability and reliability. With user friendly control systems utilising internet technology and integrated cooling and ventilation indoor units, CITY MULTI is the benchmark and market leader in VRF technology.

VRF is a multi and direct expansion type air conditioning system whereby one outdoor unit can be connected with multiple indoor units. The amount of refrigerant can be regulated freely according to the load on the indoor unit by the inverter driven compressor in the outdoor unit. Zoning in a small office is possible with a small capacity indoor unit. Energy conservation is easily handled because individual indoor units can stop and start their operation as needed. There are various indoor units available in order to suit various interior design needs.

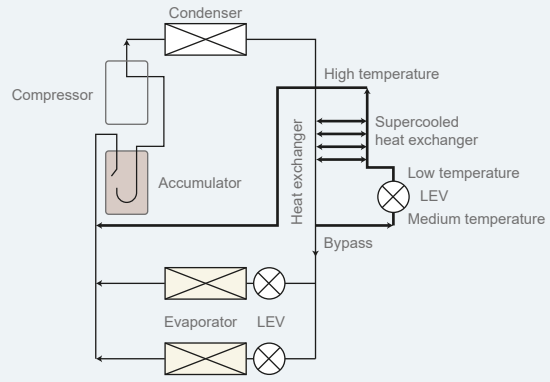


Unbeatable Efficiency

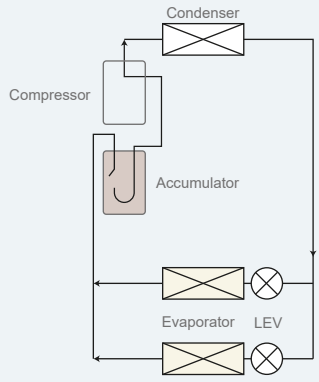
Heat Interchange Circuit

The unique Heat Interchange Circuit (HIC) enhances efficiency by providing additional sub-cooling and allows the expansion device to effectively control the refrigerant distribution, thereby increasing the operating efficiency and reducing the volume of refrigerant in each system.

CITY MULTI Refrigerant Circuit



Common Refrigerant Circuit



Inverter Driven Compressor Technology

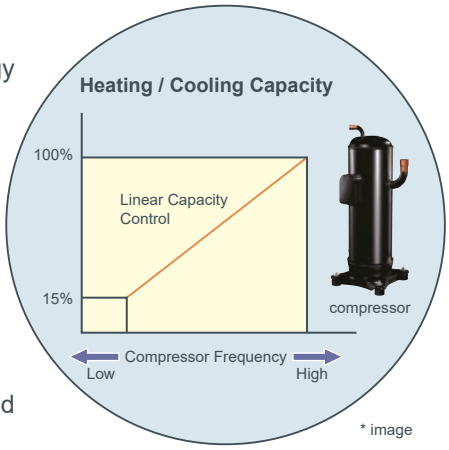
Low Starting Currents

Using inverter driven technology saves energy in several ways:

The compressor varies its speed to match the indoor cooling or heating demand and therefore only consumes the energy that is required.

When an inverter-driven system is operating at partial load, the energy efficiency of the system is significantly higher than that of a standard fixed speed, non inverter system.
The fixed speed system can only operate at 100%, even though partial load conditions prevail for the majority of the time. Therefore, fixed speed systems cannot match the annual efficiencies of inverter-driven systems.

Using proven single inverter-driven compressor technology, the CITY MULTI range is favoured by the industry for its low starting currents and smooth transition across the range of compressor frequencies.



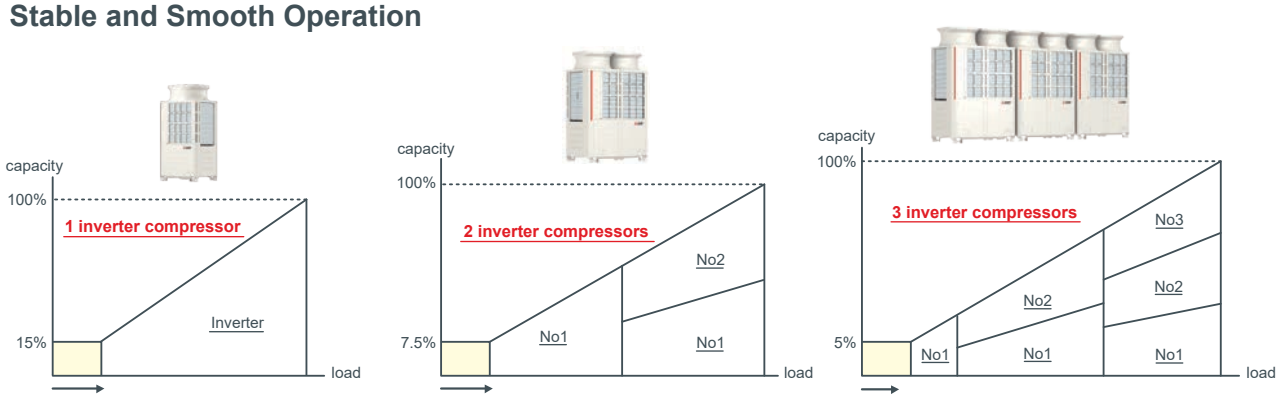
* image

* The values vary depending on the actual conditions such as ambient temperature.

All CITY MULTI compressors are inverter-driven type.
Capable of precisely matching a building's cooling and heating demands.

The outdoor unit combinations comprise 1 unit for 8-20HP systems (for Y and R2 series), 2 units for 22-36HP systems (for R2, 22-44HP) and 3 units for 44-54HP systems (Y series only). Each unit carries one inverter compressor making simple and highly reliable control possible.
Not only does it allow low starting currents, the inverter-driven compressor also provides precise indoor comfort and adapts to the air conditioning load.

Stable and Smooth Operation



Total Energy Conservation

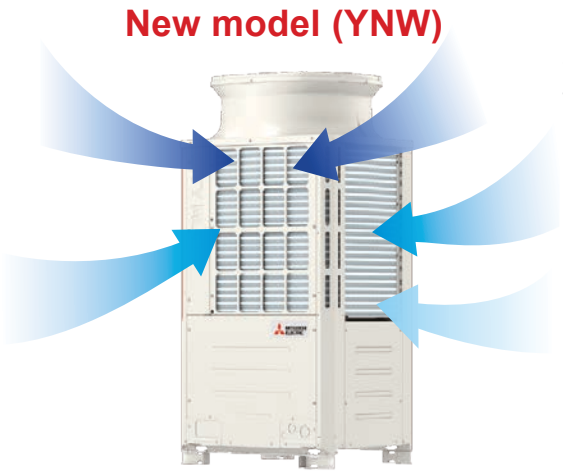
Intelligent Power Module (IPM) Technology

The YNW-A range from Mitsubishi Electric provides precise control of energy input through the utilisation of its Intelligent Power Module (IPM) technology. By employing this technology it is possible to closely match the building requirements, achieving more accurate control of the occupied space. By using incremental 1Hz steps of capacity control, the amount of power input required is significantly reduced, resulting in greatly improved COP's.

In addition, IPM technology ensures effective performance under partial load conditions, a condition that most systems will be in for the majority of the normal working life cycle. By taking into account the efficiency at both part load and peak load conditions, R410A CITY MULTI is designed to provide unbeatable year round/seasonal efficiency.

The Difference between YNW-A and Previous Mitsubishi Electric Models

Technology is the key when increased efficiency is demanded. The CITY MULTI YNW-A range is able to deliver this in simple ways.



Efficient air suction is achieved by placing the heat exchangers on the upper part. The multiplier effect created by increasing the number of suction surfaces from three surfaces to four surfaces greatly improves the operation efficiency.

The Importance of COP

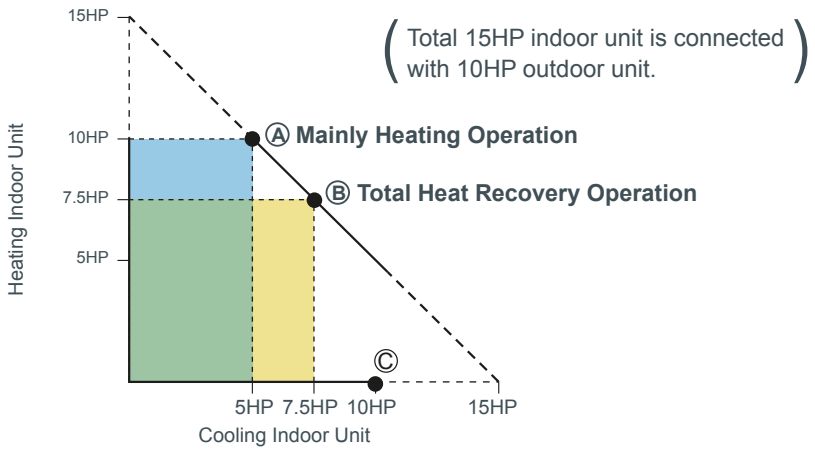
COP stands for "Coefficient of Performance". It is a measure of the useful energy a system can deliver compared to the energy it consumes. It is calculated by dividing the energy output by the energy input of a system. The higher the figure then the more efficient the system is deemed to be. Mitsubishi Electric VRF models, the world's highest energy-efficient air-conditioners, will undoubtedly reduce millions of tons of CO_2 emissions.

Affordable & Effective

air conditioning you can rely on

Energy efficiency is maximised when the R2 Series is simultaneously heating and cooling

Operation Pattern of CITY MULTI R2 System



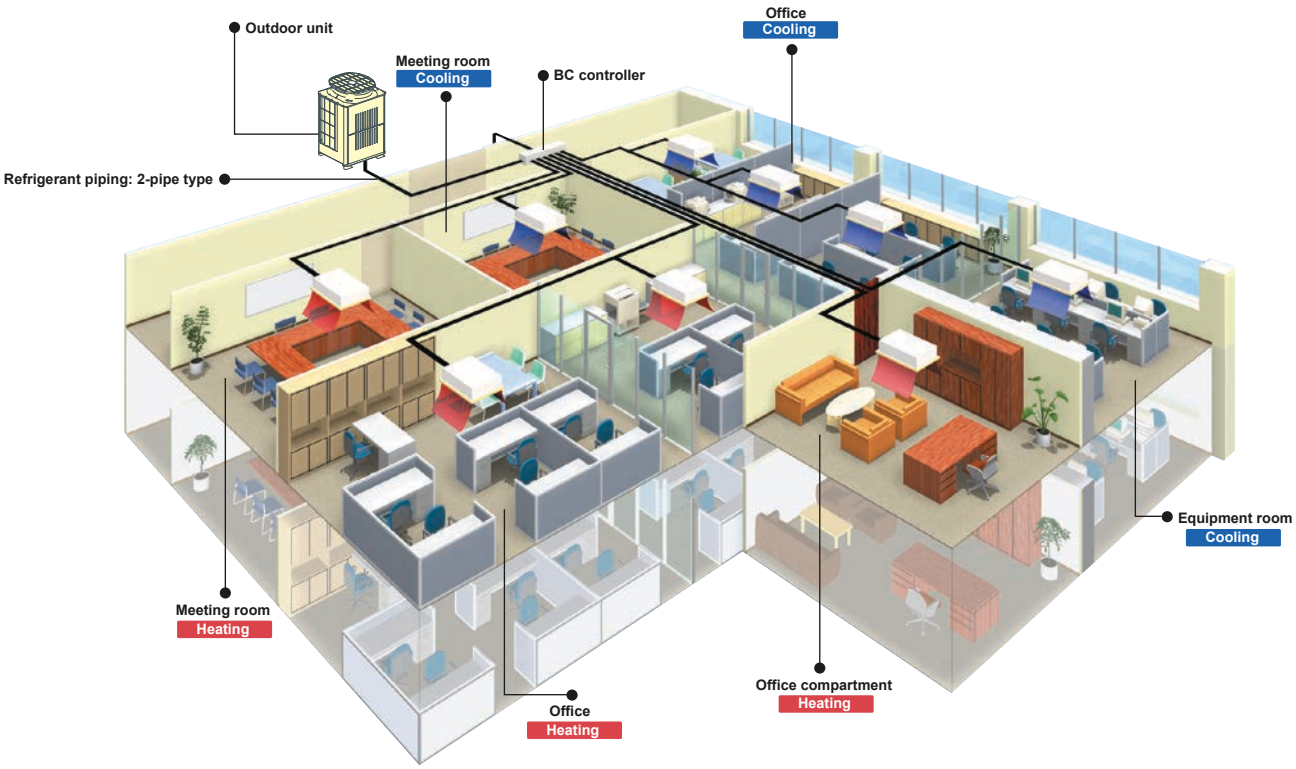
Unique Technology

Unique to Mitsubishi Electric

Our heat recovery technology uses just two pipes, as opposed to the market conventional three. Our R2 system, designed for effective simultaneous heating and cooling, offers substantial savings on installation and annual running costs.

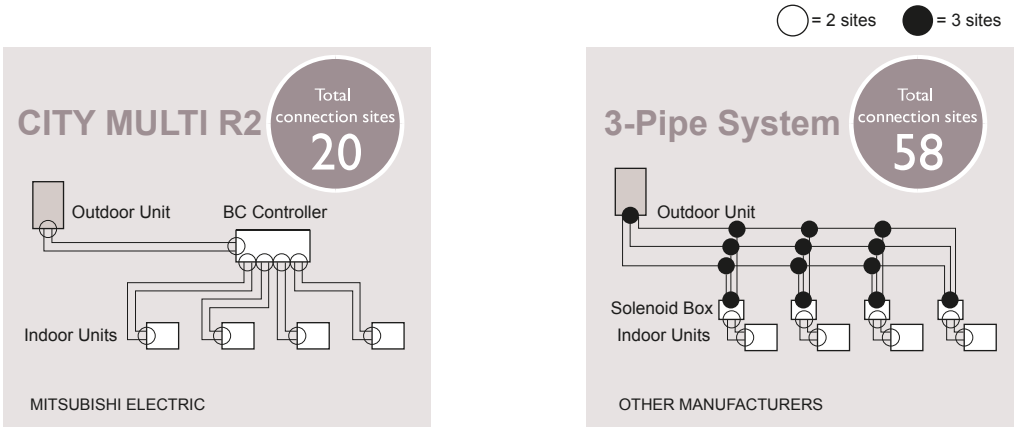
Why Heat Recovery?

Flexibility and efficiency are key factors when selecting a heat recovery system. For example, while a heat pump system is adequate for a large open-plan office, an office that has a more partitioned structure will need to simultaneously heat or cool different sections of the office according to each user's individual preferences. The efficiency of this type of system comes from the ability to use the by-products of cooling and heating to transfer energy where it is required, thus acting as a balanced heat exchanger achieving up to 20% cost savings over a conventional heat pump system. The number of connection sites needed for an R2 system are also significantly lower than those needed for a three pipe version. This helps to reduce installation costs, further increasing the savings associated with CITY MULTI.



“2-pipe” System Provides Better Efficiency and Performance

Comparison Example of Piping Connection Sites



Energy Saving Technology

What is Water-Cooled?

>A unique offering from Mitsubishi Electric

It is possible now to combine the features of VRF with a water circuit using CITY MULTI WR2/WY. In this case the heat is rejected to a water source rather than to the outside air.

The advantages of water cooled systems are that the water can be delivered at optimised temperatures and volumes, which allows even greater flexibility and increased COP.

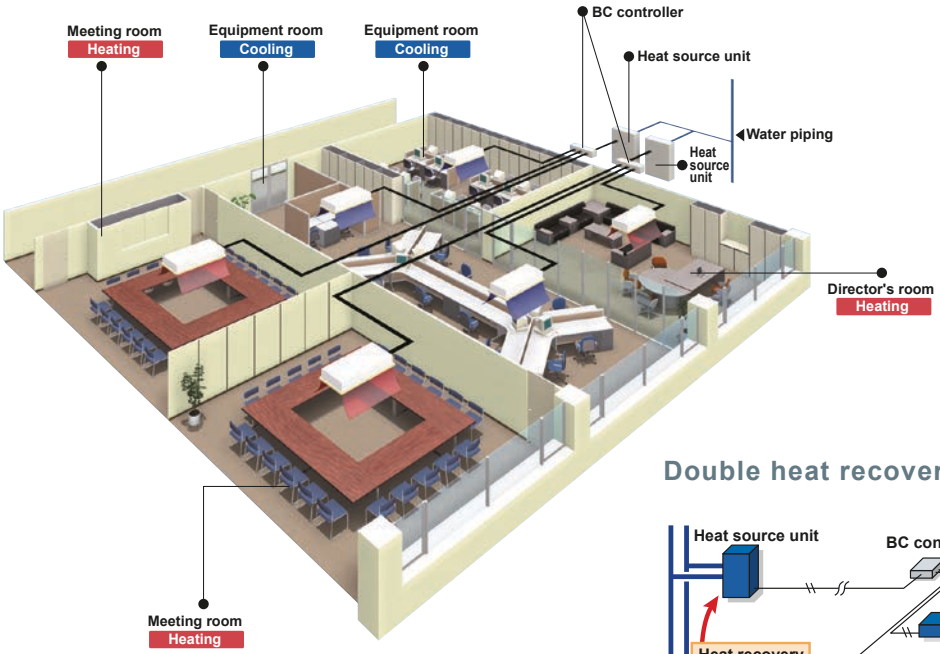
WR2(Heat recovery type)

Mitsubishi Electric now offers double heat recovery operation.

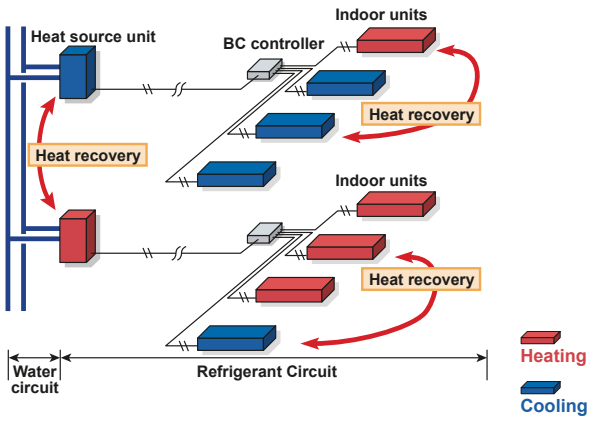
The first heat recovery is within the refrigerant system. Simultaneous cooling and heating operation is available with heat recovery performed between indoor units.

The second heat recovery is within the water loop, where heat recovery is performed between the PQRY units.

This double heat recovery operation substantially improves energy efficiency and makes the system the ideal solution to the requirements of modern office buldings, where some areas require cooling even in winter.



Double heat recovery (WR2)

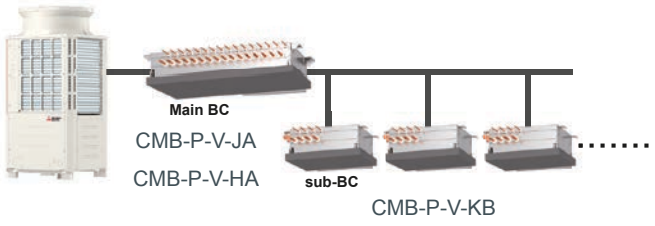


Fit Out Flexibility

Mitsubishi Electric offers the most flexible piping architecture when it comes to tenant fit out flexibility. Using our multiport BC box and refrigerant ball valves on BC box outlets, it is very easy to move/add/modify indoor units. Units can be added or removed without the need for recovering the total refrigerant charge resulting in the rest of the system remaining in operation.

The City Multi BC controller allows us to have spare ports to add additional indoor units at a later date. In most situations, a slave BC controller can also be retrofitted to give additional connections.

MASTER BC



UP TO 11X SLAVE BC'S

All City Multi VRF indoors and BC's are back engineered to ensure the latest products can be installed on VRF systems running on older refrigerants.

Mitsubishi Electric branch controller fitted with refrigeration ball valves for ease of maintenance and fit out flexibility.

Outdoor Unit

- Heat Pump Series (S)
- Heat Pump Series (Y)
- Heat Pump Series - High COP (Y)
- Heat Pump Series - Zubadan
- Water Cooled Heat Pump Series (WY)
- Heat Recovery Series (R2)
- Heat Recovery Series - High COP (R2)
- Water Cooled Heat Recovery Series (WR2)

Line up of Outdoor Units

System	Type	Model name		HP	4.5	5	6	8	10	12	14	16
				Model	P112	P125	P140	P200	P250	P300	P350	P400
Air Cooled	Heat Pump	S series — Page 28 - Page 31 PUMY-P VKM-A(-BS) PUMY-P YKM-A(-BS)			4.5	5	6					
		Y series — Page 32 - Page 43 PUHY-P YNW-A(-BS) PUHY-P YSNW-A(-BS) NEW	S					8	10	12		8+8
			L								14	16
			XL									
		Y series - High COP — Page 44 - Page 55 PUHY-EP YNW-A(-BS) PUHY-EP YSNW-A(-BS) NEW	S					8	10	12		8+8
			L								14	16
			XL									
		ZUBADAN series — Page 71 - Page 75 PUHY-HP YHM-A(-BS) PUHY-HP YSHM-A(-BS) (When sold with water module or AHU only.)	S	*1				8	10			8+8
	Heat Recovery	R2 series — Page 56 - Page 63 PURY-P YNW-A(-BS) PURY-P YSNW-A(-BS) NEW	S					8	10	12		8+8
			L								14	16
			XL									
		R2 series - High COP — Page 64 - Page 70 PURY-EP YNW-A(-BS) PURY-EP YSNW-A(-BS) NEW	S					8	10	12		8+8
			L								14	16
			XL									
Water Cooled	Heat Pump	WY series — Page 76 - Page 82 PQHY-P YLM-A PQHY-P YSLM-A	S					8	10	12		
			L								14	16
	Heat Recovery	WR2 series — Page 83 - Page 90 PQRY-P YLM-A PQRY-P YSLM-A	S					8	10	12		
			L								14	16

18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
P450	P500	P550	P600	P650	P700	P750	P800	P850	P900	P950	P1000	P1050	P1100	P1150	P1200	P1250	P1300	P1350
8 10	10 10	10 12	12 12	10						10	10	10						
18				16	14 14	14 16	14 18	16 18	18 18	14 14	14 16	16	14 14 16	14 16 16	16 16 16	16 16 18	16 18 18	18 18 18
	20																	
8 10	10 10	10 12	12 12	10						10	10	10						
18	20			16	14 14	14 16	14 18	16 18	18 18	14 14	14 16	16 16	14 14 16	14 16 16	16 16 16	16 16 18	16 18 18	18 18 18
	10 10																	
8 10	10 10	10 12	12 12	12														
18				14	14 14	14 16	16 16	16 18	18 18	18								
	20									20	20 20	20 22*	22* 22*					
8 10	10 10	10 12	12 12	12														
18				14	14 14	14 16	16 16	16 18	18 18	18								
	20									20	20 20	20 22*	22* 22*					
18	20	22	24		14 14	14 16	16 16	16 18	18 18									
18	20	22	24		14 14	14 16	16 16	16 18	18 18									

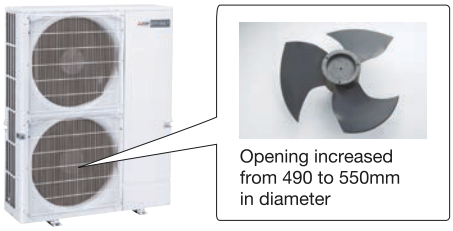
* 22HP (P550) single module can only be used in combination with others.

S-Series
PUMY-P

S series | PUMY-P VKM
PUMY-P YKM

Highly efficient fan and grille for outdoor unit

The shapes of the fan and grille of the outdoor unit have been redesigned, resulting in an increase in blowing capacity and more efficient heat exchange while maintaining the same operating noise level.

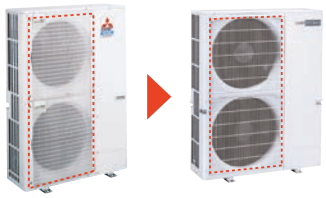


Outdoor unit fan opening increased

The diameter of the opening for the fan in the outdoor unit has been increased from 490 to 550mm. Blowing capacity has been increased while maintaining the same fan rotation speed.

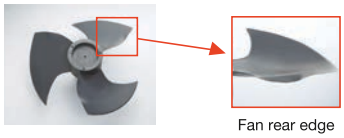
Grille shape changed

The shape of the air outlet grille has been changed to reduce pressure loss. This has helped to improve heat exchange performance.



Inflexed fan

Adoption of a fan with improved ventilation characteristics and a newly designed rear edge that suppresses wind turbulence increases fan operation efficiency.

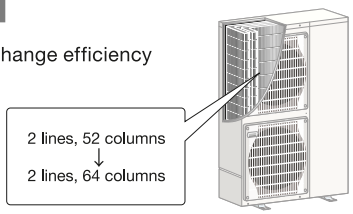


Highly efficient heat exchanger

A high density and increase in surface area have improved the heat-exchange efficiency of the heat exchanger.

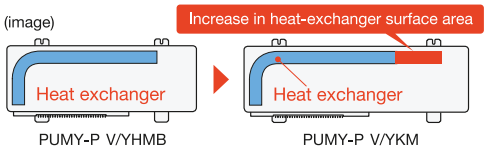
High-density heat exchanger

The pipe diameter has been changed from 9.52 to 7.94mm, resulting in a high-density heat exchanger.



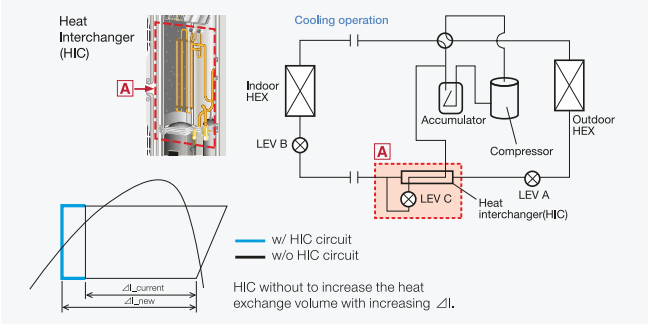
Heat-exchange surface area increased

The heat exchanger size has been extended horizontally, increasing the surface area.



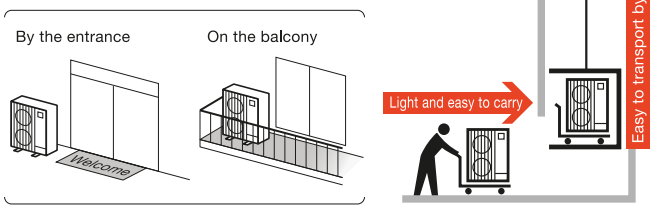
Heat Interchanger (HIC) added

An HIC circuit has been added to improve energy efficiency during cooling operation. Liquid refrigerant is rerouted, transformed into a gas state and injected back into the system to increase overall pressure of the refrigerant being sent to the compressor, thereby reducing the load on the compressor and raising efficiency.



Light weight

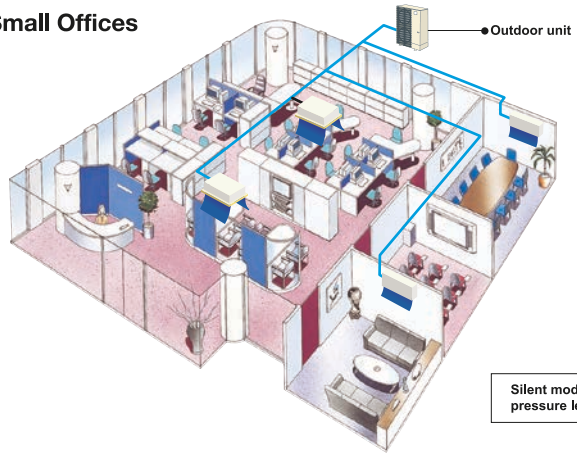
Easy to transport and install on site.



The two-pipe zoned system designed for Heat Pump Operation

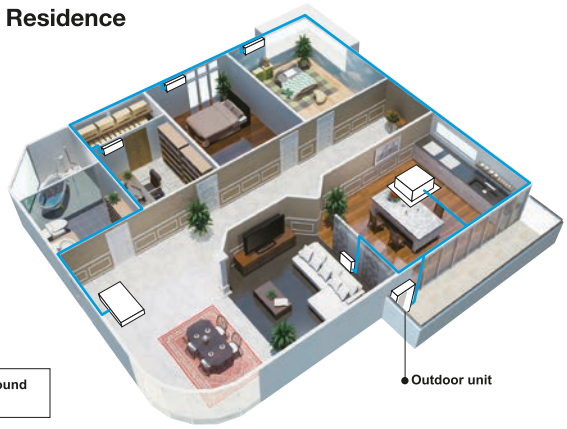
The CITY MULTI S series (for small applications) make use of a two-pipe refrigerant system, which allows for system change-over from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilises R410A refrigerant and an inverter-driven compressor for greater energy efficiency.
With a wide range of indoor units combined with a flexible piping system, the CITY MULTI series can be configured for all applications. Up to 12 (S series) indoor units can be connected with up to 130% connected capacity to maximise engineer's design options. This feature allows easy air conditioning in each area with convenient individual controllers.

Small Offices



Silent mode can reduce sound pressure level by 3dB(A)

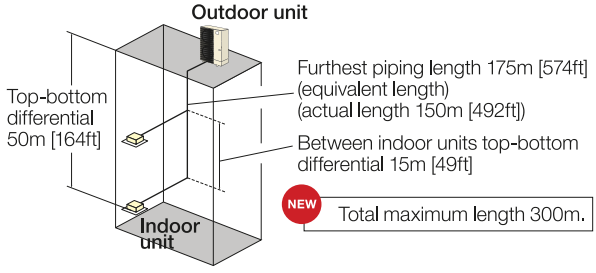
Residence



[P112~140(V/YKM)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	300 [984]
Maximum allowable length	150 (175 equivalent) [492(574)]
Farthest indoor from first branch	30 [98]

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]



OUTDOOR UNIT
S Series
PUMY-P VKM-A(-BS)

► Specifications

Model			PUMY-P112VKM-A (-BS)	PUMY-P125VKM-A (-BS)	PUMY-P140VKM-A (-BS)
Power source			1-phase 230V 50Hz	1-phase 230V 50Hz	1-phase 230V 50Hz
Cooling capacity (Nominal)	*1	kW	12.5	14.0	15.5
	*1	BTU / h	42,650	47,768	52,886
	Power input	kW	2.79	3.46	4.52
	Current input	A	12.32	15.27	19.95
	AEER/EER	kW / kW	4.13/4.48	3.76/4.05	3.22/3.43
Temp. range of cooling	Indoor temp.	W.B.	15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)
	Outdoor temp.	D.B.	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)
Heating capacity (Nominal)	*2	kW	14.0	16.0	18.0
	*2	BTU / h	47,800	54,592	61,400
	Power input	kW	3.13	3.74	4.47
	Current input	A	13.82	16.51	19.73
	ACOP/COP	kW / kW	4.20/4.47	4.03/4.28	3.81/4.03
Temp. range of heating	Indoor temp.	D.B.	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)
	Outdoor temp.	W.B.	-20.0~15.0°C(-4~59°F)	-20.0~15.0°C(-4~59°F)	-20.0~15.0°C(-4~59°F)
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity
	Model / Quantity		P15~P140/9	P15~P140/10	P15~P140/12
Sound pressure level (measured in anechoic room)		dB <A>	49/51	50/52	51/54
Refrigerant piping diameter	Liquid pipe	mm (in.)	9.52(3/8) Flare	9.52(3/8) Flare	9.52(3/8) Flare
	Gas pipe	mm (in.)	15.88(5/8) Flare	15.88(5/8) Flare	15.88(5/8) Flare
FAN	Type x Quantity		Propeller Fan x 2	Propeller Fan x 2	Propeller Fan x 2
	Air flow rate	m^3/min	110	110	120
		L/s	1,833	1,833	2,000
		cfm	3,884	3,884	4,237
	Motor output	kW	0.06 + 0.06	0.06 + 0.06	0.06 + 0.06
Compressor	Type x Quantity		Scroll hermetic compressor x 1	Scroll hermetic compressor x 1	Scroll hermetic compressor x 1
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	3.0	3.5	4.0
External finish			Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1	Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1	Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1
External dimension HxWxD		mm	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)
		in.	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)
Protection devices	High pressure protection		High pressure Switch	High pressure Switch	High pressure Switch
	Inverter circuit (COMP./FAN)		Overcurrent detection, Overheat detection (Heatsink thermistor)	Overcurrent detection, Overheat detection (Heatsink thermistor)	Overcurrent detection, Overheat detection (Heatsink thermistor)
	Compressor		Compressor thermistor, Over current detection	Compressor thermistor, Over current detection	Compressor thermistor, Over current detection
	Fan motor		Overheating, Voltage protection	Overheating, Voltage protection	Overheating, Voltage protection
Refrigerant	Type x original charge		R410A 4.8kg	R410A 4.8kg	R410A 4.8kg
Net weight		kg (lbs)	123(272)	123(272)	123(272)
Heat exchanger			Plate fin coil	Plate fin coil	Plate fin coil
Defrosting method			Reversed refrigerant circuit	Reversed refrigerant circuit	Reversed refrigerant circuit
Optional parts			Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E

Notes:

*1,*2 Nominal conditions

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB(95ºF DB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*Nominal condition *1,*2 are subject to ISO 15042.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
S Series
PUMY-P YKM-A(-BS)

► Specifications

Model			PUMY-P112YKM-A (-BS)	PUMY-P125YKM-A (-BS)	PUMY-P140YKM-A (-BS)
Power source			3-phase 400V 50Hz	3-phase 400V 50Hz	3-phase 400V 50Hz
Cooling capacity (Nominal)	*1	kW	12.5	14.0	15.5
	*1	BTU / h	42,658	47,768	52,886
	Power input	kW	2.79	3.46	4.52
	Current input	A	4.24	5.26	6.87
	AEER/EER	kW / kW	4.07/4.48	3.71/4.05	3.19/3.43
Temp. range of cooling	Indoor temp.	W.B.	15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)
	Outdoor temp.	D.B.	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)
Heating capacity (Nominal)	*2	kW	14.0	16.0	18.0
	*2	BTU / h	47,768	54,592	61,416
	Power input	kW	3.13	3.74	4.47
	Current input	A	4.76	5.68	6.79
	ACOP/COP	kW / kW	4.14/4.47	3.99/4.28	3.78/4.03
Temp. range of heating	Indoor temp.	D.B.	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)
	Outdoor temp.	W.B.	-20.0~15.0°C(-4~59°F)	-20.0~15.0°C(-4~59°F)	-20.0~15.0°C(-4~59°F)
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity
	Model / Quantity		P15~P140/9	P15~P140/10	P15~P140/12
Sound pressure level (measured in anechoic room)		dB <A>	49/51	50/52	51/54
Refrigerant piping diameter	Liquid pipe	mm (in.)	9.52(3/8) Flare	9.52(3/8) Flare	9.52(3/8) Flare
	Gas pipe	mm (in.)	15.88(5/8) Flare	15.88(5/8) Flare	15.88(5/8) Flare
FAN	Type x Quantity		Propeller Fan x 2	Propeller Fan x 2	Propeller Fan x 2
	Air flow rate	m^3/min	110	110	120
		L/s	1,833	1,833	2,000
		cfm	3,884	3,884	4,237
	Motor output	kW	0.06 + 0.06	0.06 + 0.06	0.06 + 0.06
Compressor	Type x Quantity		Scroll hermetic compressor x 1	Scroll hermetic compressor x 1	Scroll hermetic compressor x 1
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	3.0	3.5	4.0
External finish			Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1	Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1	Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1
External dimension HxWxD		mm	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)
		in.	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)
Protection devices	High pressure protection		High pressure Switch	High pressure Switch	High pressure Switch
	Inverter circuit (COMP./FAN)		Overcurrent detection, Overheat detection (Heatsink thermistor)	Overcurrent detection, Overheat detection (Heatsink thermistor)	Overcurrent detection, Overheat detection (Heatsink thermistor)
	Compressor		Compressor thermistor, Over current detection	Compressor thermistor, Over current detection	Compressor thermistor, Over current detection
	Fan motor		Overheating, Voltage protection	Overheating, Voltage protection	Overheating, Voltage protection
Refrigerant	Type x original charge		R410A 4.8kg	R410A 4.8kg	R410A 4.8kg
Net weight		kg (lbs)	125(276)	125(276)	125(276)
Heat exchanger			Plate fin coil	Plate fin coil	Plate fin coil
Defrosting method			Reversed refrigerant circuit	Reversed refrigerant circuit	Reversed refrigerant circuit
Optional parts			Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E

Notes:

*1,*2 Nominal conditions

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB(95ºF DB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*Nominal condition *1,*2 are subject to ISO 15042.
*Due to continuing improvement, above specification may be subject to change without notice.

Y (Heat Pump) series

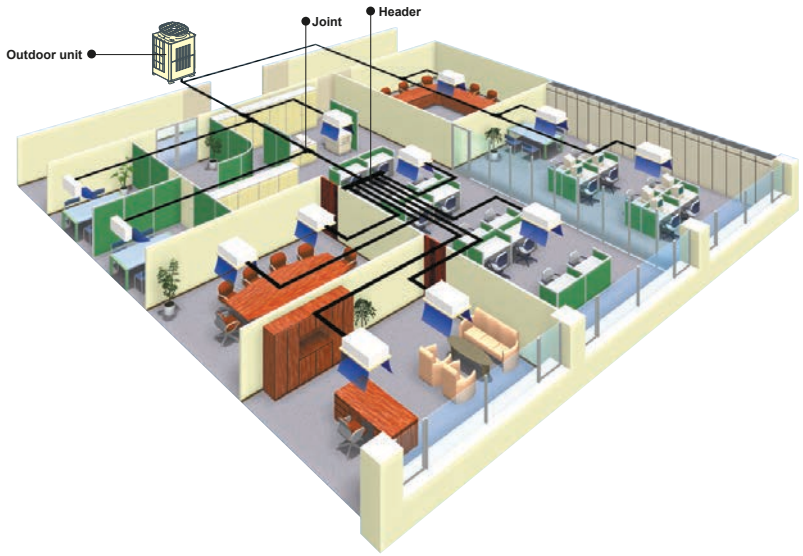
Heating or Cooling

Y series
- PUHY-P YNW-A(-BS)
- PUHY-P YSNW-A(-BS)
- PUHY-EP YNW-A(-BS)
- PUHY-EP YSNW-A(-BS)

The two-pipe zoned system designed for Heat Pump Operation

The CITY MULTI Y series (for large applications) make use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilises R410A refrigerant and an inverter-driven compressor to use energy effectively.
With a wide line-up of indoor units in connection with a flexible piping system, the CITY MULTI series can be configured for all applications. Up to 50 (Y series) indoor units can be connected with up to 130% connected capacity to maximise engineer's design options. This feature allows easy air conditioning in each area with convenient individual controllers.

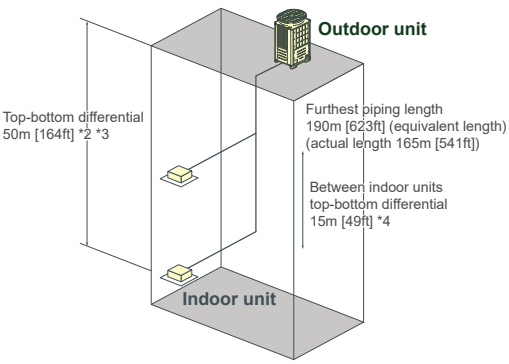
Large Offices (Y series)



System Pipe Lengths [P200–P1350 (Y Series)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	1,000 [3,280]
Maximum allowable length	165 (190 equivalent) [541(623)]
Farthest indoor from first branch	40 [131]*1

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]*2
Indoor/outdoor (outdoor lower)	40 [131]*3
Indoor/indoor	15 [49]*4



*1 90m [295ft] is available. When the piping length exceeds 40m [131ft], use one size larger liquid pipe starting with the section of piping where 40m [131ft] is exceeded and all piping after that point.
*2 90m [295ft] is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*3 60m [196ft] is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*4 30m [98ft] is available. If the height difference between indoor units exceeds 15m [49ft] (but does not exceed 30m [98ft]), use one size larger pipes for indoor unit liquid pipes.

OUTDOOR UNIT
Y Series

PUHY-P YNW-A(-BS)

Specifications

Model				PUHY-P200YNW-A (-BS)	PUHY-P250YNW-A (-BS)	PUHY-P300YNW-A (-BS)	PUHY-P350YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1		kW	22.4	28.0	33.5	40.0
			BTU/h	76,400	95,500	114,300	136,500
	Power input		kW	5.61	7.25	9.35	10.86
	EER		kW/kW	3.99	3.86	3.58	3.68
	EER (ErP)+		kW/kW	5.28	4.84	4.37	4.05
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2		kW	25.0	31.5	37.5	45.0
			BTU/h	85,300	107,500	128,000	153,500
	Power input		kW	5.59	7.35	9.10	11.30
	COP		kW/kW	4.47	4.28	4.12	3.98
	COP (ErP)+		kW/kW	5.45	5.21	4.77	4.28
(Nominal)			kW	22.4	28.0	33.5	40.0
			BTU/h	76,400	95,500	114,300	136,500
	Power input		kW	3.95	5.20	6.70	8.51
	COP		kW/kW	5.67	5.38	5.00	4.70
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/1~17	P15~P250/1~21	P15~P250/1~26	P15~P250/1~30
Sound pressure level (measured in anechoic room)		*4	dB <A>	58.0 / 59.0	60.0 / 61.0	61.0 / 64.5	62.0 / 64.0
Sound power level (measured in anechoic room)		*4	dB <A>	75.0 / 78.0	78.0 / 80.0	80.0 / 83.5	80.5 / 83.0
Refrigerant piping diameter	Liquid pipe		mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)	12.7 (1/2) Brazed
	Gas pipe		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate		m^3/min	170	185	240	270
			L/s	2,833	3,083	4,000	4,500
			cfm	6,003	6,532	8,474	9,534
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	5.6	7.0	7.9	9.8
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	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 920 x 740	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 36-1/4 x 29-3/16	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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)
Net weight			kg (lbs)	225 (497)	225 (497)	228 (503)	278 (613)
Heat exchanger				Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Optional parts				Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
Y Series

PUHY-P YNW-A(-BS)

Specifications

Model				PUHY-P400YNW-A (-BS)	PUHY-P450YNW-A (-BS)	PUHY-P500YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	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	12.93	14.74	16.00
	EER		kW/kW	3.48	3.39	3.50
	EER (ErP)+		kW/kW	3.92	4.09	4.47
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	50.0	56.0	63.0
			BTU/h	170,600	191,100	215,000
	Power input		kW	13.69	16.32	16.11
	COP		kW/kW	3.65	3.43	3.91
	COP (ErP)+		kW/kW	3.73	4.17	4.31
(Nominal)		*3	kW	45.0	50.0	56.0
			BTU/h	153,500	170,600	191,100
	Power input		kW	10.15	10.89	11.53
	COP		kW/kW	4.43	4.59	4.85
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)		*4	dB <A>	65.0 / 67.0	65.5 / 69.5	63.5 / 66.5
Sound power level (measured in anechoic room)		*4	dB <A>	82.5 / 86.0	83.5 / 88.5	82.0 / 85.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	300	305	365
			L/s	5,000	5,083	6,083
			cfm	10,593	10,770	12,888
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.46 x 2	0.46 x 2	0.92 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	10.9	12.4	13.3
	Case heater		kW	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-
	Fan motor			-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	278 (613)	294 (649)	337 (743)
Heat exchanger				Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Optional parts				Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P400YSNW-A (-BS)	PUHY-P450YSNW-A (-BS)	PUHY-P500YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	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	11.62	13.15	14.97
	EER		kW/kW	3.87	3.80	3.79
	EER (ErP)+		kW/kW	5.13	4.89	4.70
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	50.0	56.0	63.0
			BTU/h	170,600	191,100	215,000
	Power input		kW	11.54	13.23	15.18
	COP		kW/kW	4.33	4.23	4.15
	COP (ErP)+		kW/kW	5.29	5.16	5.06
(Nominal)		*3	kW	45.0	50.0	56.0
			BTU/h	153,500	170,600	191,100
	Power input		kW	8.18	9.34	10.72
	COP		kW/kW	5.50	5.35	5.22
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)		*4	dB <A>	61.0 / 62.0	62.0 / 63.0	63.0 / 64.0
Sound power level (measured in anechoic room)		*4	dB <A>	78.0 / 81.0	80.0 / 82.0	81.0 / 83.0
Refrigerant piping diameter	Liquid pipe		mm (in.)	12.7 (1/2) Brazed	15.88(5/8) Brazed	15.88(5/8) Brazed
	Gas pipe		mm (in.)	28.58(1-1/8) Brazed	28.58(1-1/8) Brazed	28.58(1-1/8) Brazed

Set Model

Model				PUHY-P200YNW-A (-BS)	PUHY-P200YNW-A (-BS)	PUHY-P200YNW-A (-BS)	PUHY-P250YNW-A (-BS)	PUHY-P250YNW-A (-BS)	PUHY-P250YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate		m^3/min	170	170	170	185	185	185
			L/s	2,833	2,833	2,833	3,083	3,083	3,083
			cfm	6,003	6,003	6,003	6,532	6,532	6,532
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	5.6	5.6	5.6	7.0	7.0	7.0
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)
Net weight			kg (lbs)	225 (497)	225 (497)	225 (497)	225 (497)	225 (497)	225 (497)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	Liquid pipe		mm (in.)	9.52(3/8) Brazed	9.52 (3/8) Brazed	9.52(3/8) Brazed	9.52 (3/8) Brazed	9.52(3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe		mm (in.)	22.2(7/8) Brazed	22.2 (7/8) Brazed	22.2(7/8) Brazed	22.2 (7/8) Brazed	22.2(7/8) Brazed	22.2 (7/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
Y Series

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P550YSNW-A (-BS)	PUHY-P600YSNW-A (-BS)	PUHY-P650YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	63.0	69.0	73.0
			BTU/h	215,000	235,400	249,100
	Power input		kW	17.54	19.88	20.79
	EER		kW/kW	3.59	3.47	3.51
	EER (ErP)*		kW/kW	4.45	4.24	4.15
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	69.0	76.5	81.5
			BTU/h	235,400	261,000	278,100
	Power input		kW	16.99	19.17	21.61
	COP		kW/kW	4.06	3.99	3.77
	COP (ErP)*		kW/kW	4.83	4.63	4.17
	(Nominal)	*3	kW	63.0	69.0	73.0
			BTU/h	215,000	235,400	249,100
	Power input		kW	12.54	14.21	15.66
	COP		kW/kW	5.02	4.85	4.66
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~47	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	63.5 / 66.0	64.0 / 67.5	66.5 / 68.0
Sound power level (measured in anechoic room)		*4	dB <A>	82.0 / 85.0	83.0 / 86.5	84.0 / 87.0
Refrigerant piping diameter	Liquid pipe		mm (in.)	15.88(5/8) Brazed	15.88(5/8) Brazed	15.88(5/8) Brazed
	Gas pipe		mm (in.)	28.58(1-1/8) Brazed	28.58(1-1/8) Brazed	28.58 (1-1/8) Brazed

Set Model

Model				PUHY-P250YNW-A (-BS)	PUHY-P300YNW-A (-BS)	PUHY-P300YNW-A (-BS)	PUHY-P300YNW-A (-BS)	PUHY-P250YNW-A (-BS)	PUHY-P400YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate		m^3/min	185	240	240	240	185	300
			L/s	3,083	4,000	4,000	4,000	3,083	5,000
			cfm	6,532	8,474	8,474	8,474	6,532	10,593
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	7.0	7.9	7.9	7.9	7.0	10.9
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)
Net weight			kg (lbs)	225 (497)	228 (508)	228 (503)	228 (503)	225 (497)	278 (613)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	Liquid pipe		mm (in.)	9.52(3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7(1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	Gas pipe		mm (in.)	22.2(7/8) Brazed	22.2 (7/8) Brazed	22.2(7/8) Brazed	22.2 (7/8) Brazed	22.2(7/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P700YSNW-A (-BS)	PUHY-P750YSNW-A (-BS)	PUHY-P800YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	80.0	85.0	90.0
			BTU/h	273,000	290,000	307,100
	Power input		kW	22.47	24.56	26.39
	EER		kW/kW	3.56	3.46	3.41
	EER (ErP)+		kW/kW	3.93	3.86	3.95
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	88.0	95.0	100.0
			BTU/h	300,300	324,100	341,200
	Power input		kW	22.79	25.81	28.08
	COP		kW/kW	3.86	3.68	3.56
	COP (ErP)+		kW/kW	4.16	3.87	4.10
(Nominal)		*3	kW	80.0	85.0	90.0
			BTU/h	273,000	290,000	307,100
	Power input		kW	17.53	19.22	19.99
	COP		kW/kW	4.56	4.42	4.50
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	65.0 / 67.0	67.0 / 68.5	67.5 / 71.0
Sound power level (measured in anechoic room)		*4	dB <A>	83.5 / 86.0	84.5 / 88.0	85.5 / 89.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe		mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model				PUHY-P350YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P450YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	270	270	270	300	270	305
			L/s	4,500	4,500	4,500	5,000	4,500	5,083
			cfm	9,534	9,534	9,534	10,593	9,534	10,770
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	9.8	9.8	9.8	10.9	9.8	12.4
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	278 (613)	278 (613)	278 (613)	278 (613)	278 (613)	294 (649)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	Liquid pipe		mm (in.)	12.7 (1/2) Brazed	12.7(1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P850YSNW-A (-BS)	PUHY-P900YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	96.0	101.0
			BTU/h	327,600	344,600
	Power input		kW	28.91	30.79
	EER		kW/kW	3.32	3.28
	EER (ErP)+		kW/kW	3.89	3.97
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	108.0	113.0
			BTU/h	368,500	385,600
	Power input		kW	31.57	34.03
	COP		kW/kW	3.42	3.32
	COP (ErP)+		kW/kW	3.85	4.05
(Nominal)		*3	kW	96.0	101.0
			BTU/h	327,600	344,600
	Power input		kW	21.90	22.64
	COP		kW/kW	4.38	4.46
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	68.5 / 71.5	68.5 / 72.5
Sound power level (measured in anechoic room)		*4	dB <A>	86.0 / 90.5	86.5 / 91.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-P400YNW-A (-BS)	PUHY-P450YNW-A (-BS)	PUHY-P450YNW-A (-BS)	PUHY-P450YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	300	305	305	305
			L/s	5,000	5,083	5,083	5,083
			cfm	10,593	10,770	10,770	10,770
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	10.9	12.4	12.4	12.4
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	278 (613)	294 (649)	294 (649)	294 (649)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	Liquid pipe		mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P950YSNW-A (-BS)	PUHY-P1000YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	108.0	113.0
			BTU/h	368,500	385,600
	Power input		kW	29.91	32.01
	EER		kW/kW	3.61	3.53
	EER (ErP)+		kW/kW	4.13	4.07
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	119.5	127.0
			BTU/h	407,700	433,300
	Power input		kW	30.40	33.42
	COP		kW/kW	3.93	3.80
	COP (ErP)+		kW/kW	4.39	4.17
(Nominal)		*3	kW	108.0	113.0
			BTU/h	368,500	385,600
	Power input		kW	22.78	24.44
	COP		kW/kW	4.74	4.62
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	66.0 / 68.0	68.0 / 69.5
Sound power level (measured in anechoic room)		*4	dB <A>	84.5 / 87.0	85.5 / 88.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-P250YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P250YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P400YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 1	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	185	270	270	185	270	300
			L/s	3,083	4,500	4,500	3,083	4,500	5,000
			cfm	6,532	9,534	9,534	6,532	9,534	10,593
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.92 x 1	0.46 x 2	0.46 x 2	0.92 x 1	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	7.0	9.8	9.8	7.0	9.8	10.9
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			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	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 1,240 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	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 36-1/4 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)
Net weight			kg (lbs)	225 (497)	278 (613)	278 (613)	225 (497)	278 (613)	278 (613)
Heat exchanger				Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe		mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
Y Series

PUHY-P YSNW-A(-BS)

Specifications

Model			PUHY-P1050YSNW-A (-BS)	PUHY-P1100YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal) *1		kW	118.0	124.0
		BTU/h	402,600	423,100
	Power input	kW	34.10	35.53
	EER	kW/kW	3.46	3.49
	EER (ErP)+	kW/kW	4.02	3.89
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max) *2		kW	132.0	140.0
		BTU/h	450,400	477,700
	Power input	kW	35.86	37.43
	COP	kW/kW	3.68	3.74
	COP (ErP)+	kW/kW	3.96	3.96
(Nominal) *3		kW	118.0	124.0
		BTU/h	402,600	423,100
	Power input	kW	26.10	27.74
	COP	kW/kW	4.52	4.47
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room) *4		dB <A>	68.5 / 70.5	68.5 / 70.0
Sound power level (measured in anechoic room) *4		dB <A>	86.0 / 89.5	86.0 / 89.0
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P250YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P350YNW-A (-BS)	PUHY-P400YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	185	300	300	270	270	300
		L/s	3,083	5,000	5,000	4,500	4,500	5,000
		cfm	6,532	10,593	10,593	9,534	9,534	10,593
	Control, Driving mechanism		Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output	kW	0.92 x 1	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	7.0	10.9	10.9	9.8	9.8	10.9
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			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	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 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	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)
Net weight		kg (lbs)	225 (497)	278 (613)	278 (613)	278 (613)	278 (613)	278 (613)
Heat exchanger			Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P1150YSNW-A (-BS)	PUHY-P1200YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	130.0	136.0
			BTU/h	443,600	464,000
	Power input		kW	37.9	40.35
	EER		A	3.43	3.37
	EER (ErP)+		kW/kW	3.84	3.81
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	145.0	150.0
			BTU/h	494,700	511,800
	Power input		kW	39.94	42.37
	COP		A	3.63	3.54
	COP (ErP)+		kW/kW	3.78	3.62
(Nominal)		*3	kW	130.0	136.0
			BTU/h	443,600	464,000
	Power input		kW	29.68	31.62
	COP		kW/kW	4.38	4.30
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	69.0 / 71.0	70.0 / 72.0
Sound power level (measured in anechoic room)		*4	dB <A>	86.5 / 90.0	87.5 / 91.0
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-P350YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P400YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	270	300	300	300	300	300
			L/s	4,500	5,000	5,000	5,000	5,000	5,000
			cfm	9,534	10,593	10,593	10,593	10,593	10,593
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	9.8	10.9	10.9	10.9	10.9	10.9
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)
Net weight			kg (lbs)	278 (613)	278 (613)	278 (613)	278 (613)	278 (613)	278 (613)
Heat exchanger				Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe		mm (in.)	12.7 (1/2) 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
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P1250YSNW-A (-BS)	PUHY-P1300YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	140.0	146.0
			BTU/h	477,700	498,200
	Power input		kW	41.91	44.10
	EER		kW/kW	3.34	3.31
	EER (ErP)+		kW/kW	3.87	3.92
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	156.5	163.0
			BTU/h	534,000	556,200
	Power input		kW	45.23	48.08
	COP		kW/kW	3.46	3.39
	COP (ErP)+		kW/kW	3.78	3.92
(Nominal)		*3	kW	140.0	146.0
			BTU/h	477,700	498,200
	Power input		kW	32.11	33.10
	COP		kW/kW	4.36	4.41
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	70.0 / 73.0	70.0 / 73.5
Sound power level (measured in anechoic room)		*4	dB <A>	87.5 / 92.0	88.0 / 92.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-P400YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P450YNW-A (-BS)	PUHY-P400YNW-A (-BS)	PUHY-P450YNW-A (-BS)	PUHY-P450YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	300	300	305	300	305	305
			L/s	5,000	5,000	5,083	5,000	5,083	5,083
			cfm	10,593	10,593	10,770	10,593	10,770	10,770
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	10.9	10.9	12.4	10.9	12.4	12.4
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	278 (613)	278 (613)	294 (649)	278 (613)	294 (649)	294 (649)
Heat exchanger				Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe		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
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

PUHY-P YSNW-A(-BS)

Specifications

Model				PUHY-P1350YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	150.0
			BTU/h	511,800
	Power input		kW	45.73
	EER		kW/kW	3.28
	EER (ErP)*		kW/kW	3.97
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	168.0
			BTU/h	573,200
	Power input		kW	50.60
	COP		A	3.32
	COP (ErP)*		kW/kW	4.05
(Nominal)		*3	kW	150.0
			BTU/h	511,800
	Power input		kW	33.63
	COP		kW/kW	4.46
Temp. range of heating	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	Total capacity			50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	70.5 / 74.5
Sound power level (measured in anechoic room)		*4	dB <A>	88.5 / 93.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450YNW-A (-BS)	PUHY-P450YNW-A (-BS)	PUHY-P450YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	305	305	305
		L/s	5,083	5,083	5,083
		cfm	10,770	10,770	10,770
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		
	Motor output	kW	0.46 x 2	0.46 x 2	0.46 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	12.4	12.4	12.4
	Case heater	kW	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
		in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight		kg (lbs)	294 (649)	294 (649)	294 (649)
Heat exchanger			Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YNW-A(-BS)

Specifications

Model				PUHY-EP200YNW-A (-BS)	PUHY-EP250YNW-A (-BS)	PUHY-EP300YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	22.4	28.0	33.5
			BTU/h	76,400	95,500	114,300
	Power input		kW	5.07	6.73	8.52
	EER		kW/kW	4.41	4.16	3.93
	EER (ErP)+		kW/kW	5.60	5.10	4.81
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	25.0	31.5	37.5
			BTU/h	85,300	107,500	128,000
	Power input		kW	5.35	7.01	8.78
	COP		kW/kW	4.67	4.49	4.27
	COP (ErP)+		kW/kW	5.55	5.37	4.99
(Nominal)		*3	kW	22.4	28.0	33.5
			BTU/h	76,400	95,500	114,300
	Power input		kW	3.86	5.06	6.25
	COP		kW/kW	5.80	5.53	5.36
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/1~17	P15~P250/1~21	P15~P250/1~26
Sound pressure level (measured in anechoic room)		*4	dB <A>	58.0 / 59.0	60.0 / 61.0	61.0 / 64.5
Sound power level (measured in anechoic room)		*4	dB <A>	75.0 / 78.0	78.0 / 80.0	80.0 / 83.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)
	Gas pipe		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate		m^3/min	170	185	240
			L/s	2,833	3,083	4,000
			cfm	6,003	6,532	8,474
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	5.6	7.0	7.9
	Case heater		kW	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	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 920 x 740	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	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 36-1/4 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-
	Fan motor			-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)
Net weight			kg (lbs)	231 (510)	231 (510)	235 (519)
Heat exchanger				Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
Optional parts				Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YNW-A(-BS)

Specifications

Model				PUHY-EP350YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP450YNW-A (-BS)	PUHY-EP500YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1		kW	40.0	45.0	50.0	56.0
			BTU/h	136,500	153,500	170,600	191,100
	Power input		kW	10.38	12.19	13.40	16.00
	EER		kW/kW	3.85	3.69	3.73	3.50
	EER (ErP)*		kW/kW	4.57	4.30	4.50	4.51
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2		kW	45.0	50.0	56.0	63.0
			BTU/h	153,500	170,600	191,100	215,000
	Power input		kW	11.47	13.05	15.01	15.00
	COP		kW/kW	3.92	3.83	3.73	4.20
	COP (ErP)*		kW/kW	4.56	4.03	4.30	4.64
(Nominal)		*3	kW	40.0	45.0	50.0	56.0
			BTU/h	136,500	153,500	170,600	191,100
	Power input		kW	8.26	9.69	10.46	11.24
	COP		kW/kW	4.84	4.64	4.78	4.98
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/1~30	P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)		*4	dB <A>	62.0 / 63.5	65.0 / 65.5	65.5 / 69.5	63.5 / 66.5
Sound power level (measured in anechoic room)		*4	dB <A>	80.5 / 82.5	82.5 / 84.5	83.5 / 88.5	82.0 / 85.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	270	270	305	365
			L/s	4,500	4,500	5,083	6,083
			cfm	9,534	9,534	10,770	12,888
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.92 x 2
	*5 External static press.			0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	9.8	10.9	12.4	13.3
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	285 (629)	305 (673)	305 (673)	342 (754)
Heat exchanger				Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
Optional parts				Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model			PUHY-EP400YSNW-A (-BS)	PUHY-EP450YSNW-A (-BS)	PUHY-EP500YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	50.0	56.0
		BTU/h	153,500	170,600	191,100
	Power input	kW	10.53	12.07	13.89
	EER	kW/kW	4.27	4.14	4.03
	EER (ErP)+	kW/kW	5.44	5.17	4.95
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2	kW	50.0	56.0	63.0
		BTU/h	170,600	191,100	215,000
	Power input	kW	11.06	12.64	14.48
	COP	kW/kW	4.52	4.43	4.35
	COP (ErP)+	kW/kW	5.39	5.29	5.21
(Nominal)	*3	kW	45.0	50.0	56.0
		BTU/h	153,500	170,600	191,100
	Power input	kW	7.99	9.10	10.42
	COP	kW/kW	5.63	5.49	5.37
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)	*4	dB <A>	61.0 / 62.0	62.0 / 63.0	63.0 / 64.0
Sound power level (measured in anechoic room)	*4	dB <A>	78.0 / 81.0	80.0 / 82.0	81.0 / 83.0
Refrigerant piping diameter	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88(5/8) Brazed	15.88(5/8) Brazed
	Gas pipe	mm (in.)	28.58(1-1/8) Brazed	28.58(1-1/8) Brazed	28.58(1-1/8) Brazed

Set Model

Model			PUHY-EP200YNW-A (-BS)	PUHY-EP200YNW-A (-BS)	PUHY-EP200YNW-A (-BS)	PUHY-EP250YNW-A (-BS)	PUHY-EP250YNW-A (-BS)	PUHY-EP250YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	170	170	170	185	185	185
		L/s	2,833	2,833	2,833	3,083	3,083	3,083
		cfm	6,003	6,003	6,003	6,532	6,532	6,532
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	5.6	5.6	5.6	7.0	7.0	7.0
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)
Net weight		kg (lbs)	231 (510)	231 (510)	231 (510)	231 (510)	231 (510)	231 (510)
Heat exchanger			Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52(3/8) Brazed	9.52 (3/8) Brazed	9.52(3/8) Brazed	9.52 (3/8) Brazed	9.52(3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	22.2(7/8) Brazed	22.2 (7/8) Brazed	22.2(7/8) Brazed	22.2 (7/8) Brazed	22.2(7/8) Brazed	22.2 (7/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP550YSNW-A (-BS)	PUHY-EP600YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	63.0	69.0
			BTU/h	215,000	235,400
	Power input		kW	16.11	18.11
	EER		kW/kW	3.91	3.81
	EER (ErP)*		kW/kW	4.80	4.67
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	69.0	76.5
			BTU/h	235,400	261,000
	Power input		kW	16.31	18.47
	COP		kW/kW	4.23	4.14
	COP (ErP)*		kW/kW	5.01	4.84
(Nominal)		*3	kW	63.0	69.0
			BTU/h	215,000	235,400
	Power input		kW	11.93	13.26
	COP		kW/kW	5.28	5.20
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~47	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	63.5 / 66.0	64.0 / 67.5
Sound power level (measured in anechoic room)		*4	dB <A>	82.0 / 85.0	83.0 / 86.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	15.88(5/8) Brazed	15.88(5/8) Brazed
	Gas pipe		mm (in.)	28.58(1-1/8) Brazed	28.58(1-1/8) Brazed

Set Model

Model			PUHY-EP250YNW-A (-BS)	PUHY-EP300YNW-A (-BS)	PUHY-EP300YNW-A (-BS)	PUHY-EP300YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	240	240	240
		L/s	3,083	4,000	4,000	4,000
		cfm	6,532	8,474	8,474	8,474
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	7.0	7.9	7.9	7.9
	Case heater	kW	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	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	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-
	Fan motor		-	-	-	-
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)
Net weight		kg (lbs)	231 (510)	235 (519)	235 (519)	235 (519)
Heat exchanger			Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52(3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7(1/2) Brazed
	Gas pipe	mm (in.)	22.2(7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP650YSNW-A (-BS)	PUHY-EP700YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	73.0	80.0
			BTU/h	249,100	273,000
	Power input		kW	19.46	21.44
	EER		kW/kW	3.75	3.73
	EER (ErP)+		kW/kW	4.47	4.44
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	81.5	88.0
			BTU/h	278,100	300,300
	Power input		kW	20.58	23.15
	COP		kW/kW	3.96	3.80
	COP (ErP)+		kW/kW	4.41	4.43
(Nominal)		*3	kW	73.0	80.0
			BTU/h	249,100	273,000
	Power input		kW	15.08	17.02
	COP		kW/kW	4.84	4.70
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	66.5 / 67.0	65.0 / 66.5
Sound power level (measured in anechoic room)		*4	dB <A>	84.0 / 86.0	83.5 / 85.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	15.88(5/8) Brazed	19.05 (3/4) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model				PUHY-EP250YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP350YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	185	270	270	270
			L/s	3,083	4,500	4,500	4,500
			cfm	6,532	9,534	9,534	9,534
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	0.46 x 2	0.46 x 2	0.46 x 2
*5	External static press.			0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	7.0	10.9	9.8	9.8
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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	1,858 (1,798 without legs) x 1,240 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	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)
Net weight			kg (lbs)	231 (510)	305 (673)	285 (629)	285 (629)
Heat exchanger				Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	Liquid pipe		mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7(1/2) Brazed
	Gas pipe		mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y100VBK3 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP750YSNW-A (-BS)	PUHY-EP800YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	85.0	90.0
			BTU/h	290,000	307,100
	Power input		kW	23.28	24.59
	EER		kW/kW	3.65	3.66
	EER (ErP)+		kW/kW	4.30	4.40
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	95.0	100.0
			BTU/h	324,100	341,200
	Power input		kW	25.33	27.10
	COP		kW/kW	3.75	3.69
	COP (ErP)+		kW/kW	4.15	4.29
(Nominal)		*3	kW	85.0	90.0
			BTU/h	290,000	307,100
	Power input		kW	18.47	19.27
	COP		kW/kW	4.60	4.67
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	67.0 / 67.5	67.5 / 70.5
Sound power level (measured in anechoic room)		*4	dB <A>	84.5 / 86.5	85.5 / 89.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe		mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model				PUHY-EP350YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP450YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	270	270	270	305
			L/s	4,500	4,500	4,500	5,083
			cfm	9,534	9,534	9,534	10,770
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	9.8	10.9	9.8	12.4
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	285 (629)	305 (673)	285 (629)	305 (673)
Heat exchanger				Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	Liquid pipe		mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model			PUHY-EP850YSNW-A (-BS)	PUHY-EP900YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal) *1		kW	96.0	101.0
		BTU/h	327,600	344,600
	Power input	kW	26.74	27.97
	EER	kW/kW	3.59	3.61
	EER (ErP)+	kW/kW	4.28	4.37
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max) *2		kW	108.0	113.0
		BTU/h	368,500	385,600
	Power input	kW	29.50	31.30
	COP	kW/kW	3.66	3.61
	COP (ErP)+	kW/kW	4.05	4.17
(Nominal) *3		kW	96.0	101.0
		BTU/h	327,600	344,600
	Power input	kW	20.96	21.76
	COP	kW/kW	4.58	4.64
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room) *4		dB <A>	68.5 / 71.0	68.5 / 72.5
Sound power level (measured in anechoic room) *4		dB <A>	86.0 / 90.0	86.5 / 91.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-EP400YNW-A (-BS)	PUHY-EP450YNW-A (-BS)	PUHY-EP450YNW-A (-BS)	PUHY-EP450YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	270	305	305	305
		L/s	4,500	5,083	5,083	5,083
		cfm	9,534	10,770	10,770	10,770
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.9	12.4	12.4	12.4
	Case heater	kW	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
		in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-
	Fan motor		-	-	-	-
Refrigerant	Type x original charge		R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight		kg (lbs)	305 (673)	305 (673)	305 (673)	305 (673)
Heat exchanger			Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP950YSNW-A (-BS)	PUHY-EP1000YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	108.0	113.0
			BTU/h	368,500	385,600
	Power input		kW	28.34	30.21
	EER		kW/kW	3.81	3.74
	EER (ErP)+		kW/kW	4.57	4.46
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	119.5	127.0
			BTU/h	407,700	433,300
	Power input		kW	30.32	32.56
	COP		kW/kW	3.94	3.90
	COP (ErP)+		kW/kW	4.63	4.42
(Nominal)		*3	kW	108.0	113.0
			BTU/h	368,500	385,600
	Power input		kW	22.13	23.59
	COP		kW/kW	4.88	4.79
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	66.0 / 67.5	68.0 / 68.5
Sound power level (measured in anechoic room)		*4	dB <A>	84.5 / 86.5	85.5 / 87.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-EP250YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP250YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP400YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 1	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	185	270	270	185	270	270
		L/s	3,083	4,500	4,500	3,083	4,500	4,500
		cfm	6,532	9,534	9,534	6,532	9,534	9,534
	Control, Driving mechanism		Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output	kW	0.92 x 1	0.46 x 2	0.46 x 2	0.92 x 1	0.46 x 2	0.46 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	7.0	9.8	9.8	7.0	9.8	10.9
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			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	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 1,240 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	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 36-1/4 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)
Net weight		kg (lbs)	231 (510)	285 (629)	285 (629)	231 (510)	285 (629)	305 (673)
Heat exchanger			Salt-resistant cross fin & aluminium tube			Salt-resistant cross fin & aluminium tube		
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP1050YSNW-A (-BS)	PUHY-EP1100YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	118.0	124.0
			BTU/h	402,600	423,100
	Power input		kW	32.06	33.78
	EER		kW/kW	3.68	3.67
	EER (ErP)+		kW/kW	4.36	4.34
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	132.0	140.0
			BTU/h	450,400	477,700
	Power input		kW	34.19	37.13
	COP		kW/kW	3.86	3.77
	COP (ErP)+		kW/kW	4.22	4.24
(Nominal)		*3	kW	118.0	124.0
			BTU/h	402,600	423,100
	Power input		kW	25.05	26.78
	COP		kW/kW	4.71	4.63
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	68.5 / 69.0	68.5 / 69.0
Sound power level (measured in anechoic room)		*4	dB <A>	86.0 / 88.0	86.0 / 89.0
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-EP250YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP350YNW-A (-BS)	PUHY-EP400YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	185	270	270	270	270	270
			L/s	3,083	4,500	4,500	4,500	4,500	4,500
			cfm	6,532	9,534	9,534	9,534	9,534	9,534
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.92 x 1	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	7.0	10.9	10.9	9.8	9.8	10.9
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			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	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 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	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 6.5 kg (15 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	231 (510)	305 (673)	305 (673)	285 (629)	285 (629)	305 (673)
Heat exchanger				Salt-resistant cross fin & aluminium tube			Salt-resistant cross fin & aluminium tube		
Pipe between unit and distributor	Liquid pipe		mm (in.)	9.52 (3/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

HIGH COP

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP1150YSNW-A (-BS)	PUHY-EP1200YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	130.0	136.0
			BTU/h	443,600	464,000
	Power input		kW	35.91	38.09
	EER		kW/kW	3.62	3.57
	EER (ErP)+		kW/kW	4.25	4.17
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	145.0	150.0
			BTU/h	494,700	511,800
	Power input		kW	38.77	40.43
	COP		kW/kW	3.74	3.71
	COP (ErP)+		kW/kW	4.07	3.91
(Nominal)		*3	kW	130.0	136.0
			BTU/h	443,600	464,000
	Power input		kW	28.50	30.22
	COP		kW/kW	4.56	4.50
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	69.0 / 69.5	70.0 / 70.5
Sound power level (measured in anechoic room)		*4	dB <A>	86.5 / 88.5	87.5 / 89.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-EP350YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP400YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	270	270	270	270	270	270
			L/s	4,500	4,500	4,500	4,500	4,500	4,500
			cfm	9,534	9,534	9,534	9,534	9,534	9,534
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.		*5	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	9.8	10.9	10.9	10.9	10.9	10.9
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	285 (629)	305 (673)	305 (673)	305 (673)	305 (673)	305 (673)
Heat exchanger				Salt-resistant cross fin & aluminium tube			Salt-resistant cross fin & aluminium tube		
Pipe between unit and distributor	Liquid pipe		mm (in.)	12.7 (1/2) 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
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB/24°C WB (95°F DB/75°F WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB(68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP1250YSNW-A (-BS)	PUHY-EP1300YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	140.0	146.0
			BTU/h	477,700	498,200
	Power input		kW	38.99	40.55
	EER		kW/kW	3.59	3.60
	EER (ErP)+		kW/kW	4.24	4.31
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	156.5	163.0
			BTU/h	534,000	556,200
	Power input		kW	42.52	44.78
	COP		kW/kW	3.68	3.64
	COP (ErP)+		kW/kW	4.01	4.09
(Nominal)		*3	kW	140.0	146.0
			BTU/h	477,700	498,200
	Power input		kW	30.76	31.71
	COP		kW/kW	4.55	4.60
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	70.0 / 72.0	70.0 / 73.5
Sound power level (measured in anechoic room)		*4	dB <A>	87.5 / 91.0	88.0 / 92.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-EP400YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP450YNW-A (-BS)	PUHY-EP400YNW-A (-BS)	PUHY-EP450YNW-A (-BS)	PUHY-EP450YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	270	270	305	270	305	305
			L/s	4,500	4,500	5,083	4,500	5,083	5,083
			cfm	9,534	9,534	10,770	9,534	10,770	10,770
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.		*5	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	10.9	10.9	12.4	10.9	12.4	12.4
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	305 (673)	305 (673)	305 (673)	305 (673)	305 (673)	305 (673)
Heat exchanger				Salt-resistant cross fin & aluminium tube			Salt-resistant cross fin & aluminium tube		
Pipe between unit and distributor	Liquid pipe		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
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
Y Series - High efficiency

PUHY-EP YSNW-A(-BS)

Specifications

Model				PUHY-EP1350YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	150.0
			BTU/h	511,800
	Power input		kW	41.55
	EER		kW/kW	3.61
	EER (ErP)+		kW/kW	4.37
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	168.0
			BTU/h	573,200
	Power input		kW	46.53
	COP		kW/kW	3.61
	COP (ErP)+		kW/kW	4.17
(Nominal)		*3	kW	150.0
			BTU/h	511,800
	Power input		kW	32.32
	Current input		A	54.5-51.8-49.9
	COP		kW/kW	4.64
Temp. range of heating	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	Total capacity			50~130% of outdoor unit capacity
	Model / Quantity			P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	70.5 / 74.5
Sound power level (measured in anechoic room)		*4	dB <A>	88.5 / 93.5
Refrigerant piping diameter	Liquid pipe		mm (in.)	19.05(3/4) Brazed
	Gas pipe		mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model				PUHY-EP450YNW-A (-BS)	PUHY-EP450YNW-A (-BS)	PUHY-EP450YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	305	305	305
			L/s	5,083	5,083	5,083
			cfm	10,770	10,770	10,770
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	12.4	12.4	12.4
	Case heater		kW	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 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			R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	305 (673)	305 (673)	305 (673)
Heat exchanger				Salt-resistant cross fin & aluminium tube		
Pipe between unit and distributor	Liquid pipe		mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-Y300VBK3 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH_2O, 6.1 mmH_2O, 8.2 mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

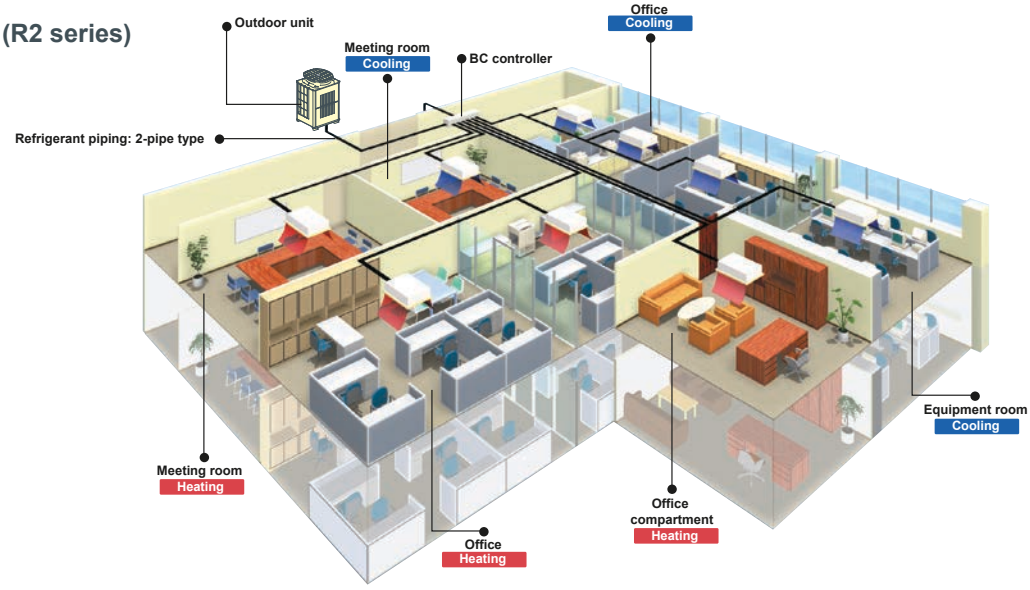
Simultaneous Heating and Cooling

R2 series
- PURY-P YNW-A(-BS)
- PURY-P YSNW-A(-BS)
- PURY-EP YNW-A(-BS)
- PURY-EP YSNW-A(-BS)

The world's first two-pipe system that Simultaneously Heats and Cools

CITY MULTI R2 series offers the ultimate in freedom and flexibility, able to heat one zone while cooling another. Our exclusive BC controller makes two-pipe simultaneous cooling and heating possible. The BC controller is the technological heart of the CITY MULTI R2 series. It houses a liquid and gas separator, allowing the outdoor unit to deliver a mixture of hot gas for heating and liquid for cooling, all through the same pipe.
This innovation results in virtually no energy wasted by being expelled outdoors. Depending on capacity, up to 50 indoor units can be connected with up to 150% connected capacity.

Installation image (R2 series)

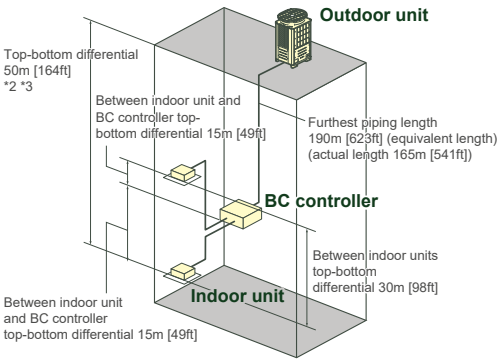


System Pipe Lengths [P200–P1100 (R2 Series)]

*22HP (P550) can be used only in combination with others.

Refrigerant Piping Lengths	Maximum meters [Feet]
Total piping length	
P200–P300	550 [1,804]
P350–P550 (single module)	600 [1,968]
P400–P600	750 [2,460]
P650	800 [2,624]
P700–P1,100	1,000 [3,280]
Maximum allowable length	165 (190 equivalent) [541(623)]
Maximum length between outdoor and single/main BC controller	110 [360]
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller.	
Maximum length between single/main BC controller and indoor and sub-BC controller*1	40-90 [131-295]

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]*3
Indoor/outdoor (outdoor lower)	40 [131]*3
Indoor/BC controller (single/main)	15 [49]*4
*Maximum length between single/main BC controller and indoor is dependent upon the vertical differential between the single/main BC controller and the indoor unit.	
Indoor/indoor	30 [98]*2*5
Main BC Controller/Sub-BC Controller	15 [49]



*1 When you install a sub-BC controller, please refer to DATABOOK for full details.
*2 When the outdoor unit is installed below the indoor unit, top-bottom differential is 40m [131ft].
*3 Depending on the model and installation conditions, top-bottom differential 90m [295ft] (o/u above) and 60m [196ft] (o/u below) is available. For more detailed information, please contact your nearest sales office or distributor.
*4 Distance of Indoor sized P200, P250 from BC must be less than 10m [32ft], if any.
*5 Distance of Indoor sized P200, P250 from BC must be less than 20m [65ft], if any.

OUTDOOR UNIT
R2 Series

PURY-P YNW-A(-BS)

Specifications

Model				PURY-P200YNW-A (-BS)	PURY-P250YNW-A (-BS)	PURY-P300YNW-A (-BS)	PURY-P350YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1		kW	22.4	28.0	33.5	40.0
			BTU/h	76,400	95,500	114,300	136,500
	Power input		kW	5.62	7.46	9.15	10.86
	EER		kW/kW	3.98	3.75	3.66	3.68
	EER (ErP)+		kW/kW	5.05	4.69	4.44	3.98
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2		kW	25.0	31.5	37.5	45.0
			BTU/h	85,300	107,500	128,000	153,500
	Power input		kW	5.98	7.68	9.97	11.50
	COP		A	4.18	4.10	3.76	3.91
	COP (ErP)+		kW/kW	5.30	5.19	4.47	4.21
(Nominal)		*3	kW	22.4	28.0	33.5	40.0
			BTU/h	76,400	95,500	114,300	136,500
	Power input		kW	4.14	5.27	6.8	8.84
	COP		kW/kW	5.41	5.31	4.92	4.52
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150%	50~150%	50~150%	50~150%
	Model / Quantity			P15~P250/1~20	P15~P250/1~25	P15~P250/1~30	P15~P250/1~35
Sound pressure level (measured in anechoic room)		*4	dB <A>	59.0 / 59.0	60.5 / 61.0	61.0 / 67.0	62.5 / 64.0
Sound power level (measured in anechoic room)		*4	dB <A>	76.0 / 78.0	78.5 / 80.0	80.0 / 86.5	81.0 / 83.0
Refrigerant piping diameter	High pressure		mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure		mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate		m^3/min	170	185	240	250
			L/s	2,833	3,083	4,000	4,167
			cfm	6,003	6,532	8,474	8,828
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	5.6	7.0	7.9	10.2
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	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 920 x 740	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 36-1/4 x 29-3/16	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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 8.0 kg (18 lbs)
Net weight			kg (lbs)	229 (505)	229 (505)	231 (510)	273 (602)
Heat exchanger				Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Optional parts				Joint: CMY-R160-J1 BC controller: CMB-P104,106,108, 1012,1016V-J Main BC controller: CMB-P108,1012,1016V-JA, CMB-P1016V-KA Sub BC controller: CMB-P104V-KB			

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series

PURY-P YNW-A(-BS)

Specifications

Model			PURY-P400YNW-A (-BS)	PURY-P450YNW-A (-BS)	PURY-P500YNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	50.0	56.0
		BTU/h	153,500	170,600	191,100
	Power input	kW	12.93	14.92	16.23
	EER	kW/kW	3.48	3.35	3.45
	EER (ErP)+	kW/kW	3.88	4.04	4.40
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2	kW	50.0	56.0	63.0
		BTU/h	170,600	191,100	215,000
	Power input	kW	13.92	16.47	16.23
	COP	A	3.59	3.40	3.88
	COP (ErP)+	kW/kW	3.66	4.15	4.12
(Nominal)	*3	kW	45.0	50.0	56.0
		BTU/h	153,500	170,600	191,100
	Power input	kW	10.29	10.91	12.09
	COP	kW/kW	4.37	4.58	4.63
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~150%	50~150%	50~150%
	Model / Quantity		P15~P250/1~40	P15~P250/1~45	P15~P250/1~50
Sound pressure level (measured in anechoic room)	*4	dB <A>	65.0 / 69.0	65.5 / 70.0	63.5 / 64.5
Sound power level (measured in anechoic room)	*4	dB <A>	83.0 / 88.0	83.0 / 89.0	82.0 / 84.0
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	315	315	295
		L/s	5,250	5,250	4,917
		cfm	11,123	11,123	10,416
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.46 x 2	0.46 x 2	0.92 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.9	12.4	13.0
	Case heater	kW	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x1,750 x 740
		in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight		kg (lbs)	273 (602)	293 (646)	337 (743)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Optional parts				Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA, CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series

PURY-P YSNW-A(-BS)

Specifications

Model				PURY-P400YSNW-A (-BS)	PURY-P450YSNW-A (-BS)	PURY-P500YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	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	11.65	13.33	15.38
	EER		kW/kW	3.86	3.75	3.64
	EER (ErP)+		kW/kW	4.90	4.72	4.55
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	50.0	56.0	63.0
			BTU/h	170,600	191,100	215,000
	Power input		kW	12.34	13.93	15.82
	COP		kW/kW	4.05	4.02	3.98
	COP (ErP)+		kW/kW	5.14	5.09	5.03
(Nominal)		*3	kW	45.0	50.0	56.0
			BTU/h	153,500	170,600	191,100
	Power input		kW	8.58	9.63	10.87
	COP		kW/kW	5.24	5.19	5.15
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity			P15~P250/1~40	P15~P250/1~45	P15~P250/1~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	62.0 / 62.0	63.0 / 63.5	63.5 / 64.0
Sound power level (measured in anechoic room)		*4	dB <A>	79.0 / 81.0	80.5 / 82.5	81.5 / 83.0
Refrigerant piping diameter	High pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

Set Model

Model				PURY-P200YNW-A (-BS)	PURY-P200YNW-A (-BS)	PURY-P200YNW-A (-BS)	PURY-P250YNW-A (-BS)	PURY-P250YNW-A (-BS)	PURY-P250YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate		m^3/min	170	170	170	185	185	185
			L/s	2,833	2,833	2,833	3,083	3,083	3,083
			cfm	6,003	6,003	6,003	6,532	6,532	6,532
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	5.6	5.6	5.6	7.0	7.0	7.0
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 5.2 kg (12 lbs)		R410A x 5.2 kg (12 lbs)		R410A x 5.2 kg (12 lbs)	
Net weight			kg (lbs)	229 (505)	229 (505)	229 (505)	229 (505)	229 (505)	229 (505)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure		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	19.05 (3/4) Brazed
	Low pressure		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
R2 Series

PURY-P YSNW-A(-BS)

Specifications

Model			PURY-P550YSNW-A (-BS)	PURY-P600YSNW-A (-BS)	PURY-P650YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	63.0	69.0	73.0
		BTU/h	215,000	235,400	249,100
	Power input	kW	17.54	19.43	20.50
	EER	kW/kW	3.59	3.55	3.56
	EER (ErP)+	kW/kW	4.35	4.15	4.01
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2	kW	69.0	76.5	81.5
		BTU/h	235,400	261,000	278,100
	Power input	kW	18.11	20.95	21.90
	COP	kW/kW	3.81	3.65	3.72
	COP (ErP)+	kW/kW	4.69	4.34	4.21
(Nominal)	*3	kW	63.0	69.0	73.0
		BTU/h	215,000	235,400	249,100
	Power input	kW	13.01	15.26	16.39
	COP	kW/kW	4.84	4.52	4.45
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)	*4	dB <A>	64.0 / 68.0	64.0 / 70.0	65.0 / 69.0
Sound power level (measured in anechoic room)	*4	dB <A>	82.5 / 87.5	83.0 / 89.5	83.5 / 88.5
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

Set Model

Model			PURY-P250YNW-A (-BS)	PURY-P300YNW-A (-BS)	PURY-P300YNW-A (-BS)	PURY-P300YNW-A (-BS)	PURY-P300YNW-A (-BS)	PURY-P350YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate	m^3/min	185	240	240	240	240	250
		L/s	3,083	4,000	4,000	4,000	4,000	4,167
		cfm	6,532	8,474	8,474	8,474	8,474	8,828
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.46 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	7.0	7.9	7.9	7.9	7.9	10.2
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 8.0 kg (18 lbs)
Net weight		kg (lbs)	229 (505)	231 (510)	231 (510)	231 (510)	231 (510)	273 (602)
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series

PURY-P YSNW-A(-BS)

Specifications

Model				PURY-P700YSNW-A (-BS)	PURY-P750YSNW-A (-BS)	PURY-P800YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	80.0	85.0	90.0
			BTU/h	273,000	290,000	307,100
	Power input		kW	22.47	24.56	26.62
	EER		kW/kW	3.56	3.46	3.38
	EER (ErP)*		kW/kW	3.86	3.81	3.76
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	88.0	95.0	100.0
			BTU/h	300,300	324,100	341,200
	Power input		kW	23.21	26.09	28.73
	COP		kW/kW	3.79	3.64	3.48
	COP (ErP)*		kW/kW	4.08	3.82	3.55
(Nominal)		*3	kW	80.0	85.0	90.0
			BTU/h	273,000	290,000	307,100
	Power input		kW	18.25	19.71	21.22
	COP		kW/kW	4.38	4.31	4.24
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	65.5 / 67.0	67.0 / 70.5	68.0 / 72.0
Sound power level (measured in anechoic room)		*4	dB <A>	84.0 / 86.0	85.5 / 89.5	86.0 / 91.0
Refrigerant piping diameter	High pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
	Low pressure		mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model				PURY-P350YNW-A (-BS)	PURY-P350YNW-A (-BS)	PURY-P350YNW-A (-BS)	PURY-P400YNW-A (-BS)	PURY-P400YNW-A (-BS)	PURY-P400YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	250	250	250	315	315	315
			L/s	4,167	4,167	4,167	5,250	5,250	5,250
			cfm	8,828	8,828	8,828	11,123	11,123	11,123
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	10.2	10.2	10.2	10.9	10.9	10.9
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
Net weight			kg (lbs)	273 (602)	273 (602)	273 (602)	273 (602)	273 (602)	273 (602)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series

PURY-P YSNW-A(-BS)

Specifications

Model			PURY-P850YSNW-A (-BS)	PURY-P900YSNW-A (-BS)	PURY-P950YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0	101.0	108.0
		BTU/h	327,600	344,600	368,500
	Power input	kW	29.00	31.07	33.23
	EER	kW/kW	3.31	3.25	3.25
	EER (ErP)+	kW/kW	3.84	3.92	4.09
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2	kW	108.0	113.0	119.5
		BTU/h	368,500	385,600	407,700
	Power input	kW	31.85	34.24	33.85
	COP	kW/kW	3.39	3.30	3.53
	COP (ErP)+	kW/kW	3.79	4.03	4.01
(Nominal)	*3	kW	96.0	101.0	108.0
		BTU/h	327,600	344,600	368,500
	Power input	kW	22.11	22.74	24.15
	COP	kW/kW	4.34	4.44	4.47
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)	*4	dB <A>	68.5 / 72.5	68.5 / 73.0	68.0 / 71.5
Sound power level (measured in anechoic room)	*4	dB <A>	86.0 / 91.5	86.0 / 92.0	85.5 / 90.5
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PURY-P400YNW-A (-BS)	PURY-P450YNW-A (-BS)	PURY-P450YNW-A (-BS)	PURY-P450YNW-A (-BS)	PURY-P450YNW-A (-BS)	PURY-P500YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	315	315	315	315	315	295
		L/s	5,250	5,250	5,250	5,250	5,250	4,917
		cfm	11,123	11,123	11,123	11,123	11,123	10,416
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.92 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.9	12.4	12.4	12.4	12.4	13.0
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
		in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight		kg (lbs)	273 (602)	293 (646)	293 (646)	293 (646)	293 (646)	337 (743)
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series

PURY-P YSNW-A(-BS)

Specifications

Model				PURY-P1000YSNW-A (-BS)	PURY-P1050YSNW-A (-BS)	PURY-P1100YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	113.0	118.0	124.0
			BTU/h	385,600	402,600	423,100
	Power input		kW	33.73	39.73	47.69
	EER		kW/kW	3.35	2.97	2.60
	EER (ErP)+		kW/kW	4.27	4.04	3.81
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	127.0	132.0	140.0
			BTU/h	433,300	450,400	477,700
	Power input		kW	33.77	39.52	47.94
	COP		kW/kW	3.76	3.34	2.92
	COP (ErP)+		kW/kW	4.00	3.87	3.73
	(Nominal)	*3	kW	113.0	118.0	124.0
			BTU/h	385,600	402,600	423,100
	Power input		kW	25.16	27.05	29.30
	COP		kW/kW	4.49	4.36	4.23
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	66.5 / 67.5	68.0 / 73.0	69.0 / 73.0
Sound power level (measured in anechoic room)		*4	dB <A>	85.0 / 87.0	86.0 / 92.0	86.5 / 92.0
Refrigerant piping diameter	High pressure		mm (in.)	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed
	Low pressure		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PURY-P500YNW-A (-BS)	PURY-P500YNW-A (-BS)	PURY-P500YNW-A (-BS)	PURY-P550YNW-A (-BS)*	PURY-P550YNW-A (-BS)*	PURY-P550YNW-A (-BS)*
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	295	295	295	410	410	410
			L/s	4,917	4,917	4,917	6,833	6,833	6,833
			cfm	10,416	10,416	10,416	14,477	14,477	14,477
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	13.0	13.0	13.0	14.3	14.3	14.3
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	337 (743)	337 (743)	337 (743)	337 (743)	337 (743)	337 (743)
Heat exchanger				Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB/24°C WB (95°F DB/75°F WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB(68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

*22HP (P550) can be used only in combination with others.

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YNW-A(-BS)

Specifications

Model				PURY-EP200YNW-A (-BS)	PURY-EP250YNW-A (-BS)	PURY-EP300YNW-A (-BS)	PURY-EP350YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	22.4	28.0	33.5	40.0
			BTU/h	76,400	95,500	114,300	136,500
	Power input		kW	5.38	7.00	8.98	10.49
	EER		kW/kW	4.16	4.00	3.73	3.81
	EER (ErP)+		kW/kW	5.29	4.98	4.53	4.54
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	25.0	31.5	37.5	45.0
			BTU/h	85,300	107,500	128,000	153,500
	Power input		kW	5.88	7.59	9.94	11.59
	COP		kW/kW	4.25	4.15	3.77	3.88
	COP (ErP)+		kW/kW	5.47	5.26	4.48	4.39
	(Nominal) EUROVENT	*3	kW	22.4	28.0	33.5	40.0
			BTU/h	76,400	95,500	114,300	136,500
	Power input		kW	3.95	5.23	6.80	8.78
	COP		kW/kW	5.67	5.35	4.92	4.55
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150%	50~150%	50~150%	50~150%
	Model / Quantity			P15~P250/1~20	P15~P250/1~25	P15~P250/1~30	P15~P250/1~35
Sound pressure level (measured in anechoic room)		*4	dB <A>	59.0 / 59.0	60.5 / 61.0	61.0 / 67.0	62.5 / 64.0
Sound power level (measured in anechoic room)		*4	dB <A>	76.0 / 78.0	78.5 / 80.0	80.0 / 86.5	81.0 / 83.0
Refrigerant piping diameter	High pressure		mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure		mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate		m^3/min	170	185	240	250
			L/s	2,833	3,083	4,000	4,167
			cfm	6,003	6,532	8,474	8,828
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter	Inverter
	Motor output		kW	5.6	7.0	7.9	10.2
	Case heater		kW	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	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 920 x 740	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 36-1/4 x 29-3/16	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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-	-
	Fan motor			-	-	-	-
Refrigerant	Type x original charge			R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 8.0 kg (18 lbs)
Net weight			kg (lbs)	234 (516)	234 (516)	236 (521)	279 (616)
Heat exchanger				Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
Optional parts				Joint: CMY-R160-J1 BC controller: CMB-P104,106,108, 1012,1016V-J Main BC controller: CMB-P108,1012,1016V-JA, CMB-P1016V-KA Sub BC controller: CMB-P104V-KB			

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YNW-A(-BS)

Specifications

Model				PURY-EP400YNW-A (-BS)	PURY-EP450YNW-A (-BS)	PURY-EP500YNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	45.0	50.0	56.0
			BTU/h	153,500	170,600	191,100
	Power input		kW	12.82	13.55	16.09
	EER		kW/kW	3.51	3.69	3.48
	EER (ErP)+		kW/kW	3.97	4.66	4.41
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	50.0	56.0	63.0
			BTU/h	170,600	191,100	215,000
	Power input		kW	13.26	15.86	15.14
	COP		kW/kW	3.77	3.53	4.16
	COP (ErP)+		kW/kW	3.85	4.26	4.43
(Nominal)		*3	kW	45.0	50.0	56.0
			BTU/h	153,500	170,600	191,100
	Power input		kW	10.24	10.01	11.78
	COP		kW/kW	4.39	4.99	4.75
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150%	50~150%	50~150%
	Model / Quantity			P15~P250/1~40	P15~P250/1~45	P15~P250/1~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	65.0 / 69.0	65.5 / 70.0	63.5 / 64.5
Sound power level (measured in anechoic room)		*4	dB <A>	83.0 / 88.0	83.0 / 89.0	82.0 / 84.0
Refrigerant piping diameter	High pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	315	315	295
			L/s	5,250	5,250	4,917
			cfm	11,123	11,123	10,416
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.46 x 2	0.46 x 2	0.92 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	10.9	12.4	13.0
	Case heater		kW	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-	-
	Fan motor			-	-	-
Refrigerant	Type x original charge			R410A x 8.0 kg (18 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	282 (622)	306 (675)	345 (761)
Heat exchanger				Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
Optional parts				Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA, CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YSNW-A(-BS)

Specifications

Model				PURY-EP400YSNW-A (-BS)	PURY-EP450YSNW-A (-BS)	PURY-EP500YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	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	11.13	12.62	14.43
	EER		kW/kW	4.04	3.96	3.88
	EER (ErP)*		kW/kW	5.13	4.98	4.83
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	50.0	56.0	63.0
			BTU/h	170,600	191,100	215,000
	Power input		kW	12.13	13.75	15.63
	COP		kW/kW	4.12	4.07	4.03
	COP (ErP)*		kW/kW	5.30	5.20	5.10
(Nominal)		*3	kW	45.0	50.0	56.0
			BTU/h	153,500	170,600	191,100
	Power input		kW	8.17	9.35	10.78
	COP		kW/kW	5.50	5.34	5.19
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity			P15~P250/1~40	P15~P250/1~45	P15~P250/1~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	62.0 / 62.0	63.0 / 63.5	63.5 / 64.0
Sound power level (measured in anechoic room)		*4	dB <A>	79.0 / 81.0	80.5 / 82.5	81.5 / 83.0
Refrigerant piping diameter	High pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

Set Model

Model				PURY-EP200YNW-A (-BS)	PURY-EP200YNW-A (-BS)	PURY-EP200YNW-A (-BS)	PURY-EP250YNW-A (-BS)	PURY-EP250YNW-A (-BS)	PURY-EP250YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate		m^3/min	170	170	170	185	185	185
			L/s	2,833	2,833	2,833	3,083	3,083	3,083
			cfm	6,003	6,003	6,003	6,532	6,532	6,532
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	5.6	5.6	5.6	7.0	7.0	7.0
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)
Net weight			kg (lbs)	234 (516)	234 (516)	234 (516)	234 (516)	234 (516)	234 (516)
Heat exchanger				Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	High pressure		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	19.05 (3/4) Brazed
	Low pressure		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YSNW-A(-BS)

Specifications

Model				PURY-EP550YSNW-A (-BS)	PURY-EP600YSNW-A (-BS)	PURY-EP650YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	63.0	69.0	73.0
			BTU/h	215,000	235,400	249,100
	Power input		kW	16.80	19.06	19.94
	EER		kW/kW	3.75	3.62	3.66
	EER (ErP)+		kW/kW	4.61	4.39	4.40
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	69.0	76.5	81.5
			BTU/h	235,400	261,000	278,100
	Power input		kW	17.96	20.90	21.96
	COP		kW/kW	3.84	3.66	3.71
	COP (ErP)+		kW/kW	4.72	4.35	4.30
(Nominal)		*3	kW	63.0	69.0	73.0
			BTU/h	215,000	235,400	249,100
	Power input		kW	12.64	14.46	15.89
	COP		kW/kW	4.98	4.77	4.59
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	64.0 / 68.0	64.0 / 70.0	65.0 / 69.0
Sound power level (measured in anechoic room)		*4	dB <A>	82.5 / 87.5	83.0 / 89.5	83.5 / 88.5
Refrigerant piping diameter	High pressure		mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	28.58 (1-1/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

Set Model

Model				PURY-EP250YNW-A (-BS)	PURY-EP300YNW-A (-BS)	PURY-EP300YNW-A (-BS)	PURY-EP300YNW-A (-BS)	PURY-EP300YNW-A (-BS)	PURY-EP350YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate		m^3/min	185	240	240	240	240	250
			L/s	3,083	4,000	4,000	4,000	4,000	4,167
			cfm	6,532	8,474	8,474	8,474	8,474	8,828
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.46 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	7.0	7.9	7.9	7.9	7.9	10.2
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 920 x 740	1,858 (1,798 without legs) x 920 x 740	1,858 (1,798 without legs) x 920 x 740	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 36-1/4 x 29-3/16	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 36-1/4 x 29-3/16	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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 5.2 kg (12 lbs)	R410A x 8.0 kg (18 lbs)
Net weight			kg (lbs)	234 (516)	236 (521)	236 (521)	236 (521)	236 (521)	279 (616)
Heat exchanger				Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	High pressure		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R100VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YSNW-A(-BS)

Specifications

Model			PURY-EP700YSNW-A (-BS)	PURY-EP750YSNW-A (-BS)	PURY-EP800YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal) *1		kW	80.0	85.0	90.0
		BTU/h	273,000	290,000	307,100
	Power input	kW	21.62	23.94	26.47
	EER	kW/kW	3.70	3.55	3.40
	EER (ErP)+	kW/kW	4.40	4.13	3.85
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max) *2		kW	88.0	95.0	100.0
		BTU/h	300,300	324,100	341,200
	Power input	kW	23.40	25.60	27.32
	COP	kW/kW	3.76	3.71	3.66
	COP (ErP)+	kW/kW	4.26	4.00	3.73
(Nominal) *3		kW	80.0	85.0	90.0
		BTU/h	273,000	290,000	307,100
	Power input	kW	18.13	19.58	21.12
	COP	kW/kW	4.41	4.34	4.26
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room) *4		dB <A>	65.5 / 67.0	67.0 / 70.5	68.0 / 72.0
Sound power level (measured in anechoic room) *4		dB <A>	84.0 / 86.0	85.5 / 89.5	86.0 / 91.0
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model			PURY-EP350YNW-A (-BS)	PURY-EP350YNW-A (-BS)	PURY-EP350YNW-A (-BS)	PURY-EP400YNW-A (-BS)	PURY-EP400YNW-A (-BS)	PURY-EP400YNW-A (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	250	250	250	315	315	315
		L/s	4,167	4,167	4,167	5,250	5,250	5,250
		cfm	8,828	8,828	8,828	11,123	11,123	11,123
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2
*5	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.2	10.2	10.2	10.9	10.9	10.9
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740
		in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
Net weight		kg (lbs)	279 (616)	279 (616)	279 (616)	282 (622)	282 (622)	282 (622)
Heat exchanger			Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YSNW-A(-BS)

Specifications

Model				PURY-EP850YSNW-A (-BS)	PURY-EP900YSNW-A (-BS)	PURY-EP950YSNW-A (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	96.0	101.0	108.0
			BTU/h	327,600	344,600	368,500
	Power input		kW	27.50	28.21	30.16
	EER		kW/kW	3.49	3.58	3.58
	EER (ErP)+		kW/kW	4.19	4.52	4.40
Temp. range of cooling	Indoor		W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor		D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)		*2	kW	108.0	113.0	119.5
			BTU/h	368,500	385,600	407,700
	Power input		kW	30.50	33.04	32.03
	COP		kW/kW	3.54	3.42	3.73
	COP (ErP)+		kW/kW	3.93	4.13	4.21
(Nominal)		*3	kW	96.0	101.0	108.0
			BTU/h	327,600	344,600	368,500
	Power input		kW	21.09	20.86	22.87
	COP		kW/kW	4.55	4.84	4.72
Temp. range of heating	Indoor		D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor		W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity			50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity			P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		*4	dB <A>	68.5 / 72.5	68.5 / 73.0	68.0 / 71.5
Sound power level (measured in anechoic room)		*4	dB <A>	86.0 / 91.5	86.0 / 92.0	85.5 / 90.5
Refrigerant piping diameter	High pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
	Low pressure		mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model				PURY-EP400YNW-A (-BS)	PURY-EP450YNW-A (-BS)	PURY-EP450YNW-A (-BS)	PURY-EP450YNW-A (-BS)	PURY-EP450YNW-A (-BS)	PURY-EP500YNW-A (-BS)
FAN	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m^3/min	315	315	315	315	315	295
			L/s	5,250	5,250	5,250	5,250	5,250	4,917
			cfm	11,123	11,123	11,123	11,123	11,123	10,416
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output		kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	0.92 x 2
	External static press.	*5		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output		kW	10.9	12.4	12.4	12.4	12.4	13.0
	Case heater		kW	-	-	-	-	-	-
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor			-	-	-	-	-	-
	Fan motor			-	-	-	-	-	-
Refrigerant	Type x original charge			R410A x 8.0 kg (18 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight			kg (lbs)	282 (622)	306 (675)	306 (675)	306 (675)	306 (675)	345 (761)
Heat exchanger				Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	High pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts				Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered

*4 Cooling mode / Heating mode

*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.

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

OUTDOOR UNIT
R2 Series - High efficiency

PURY-EP YSNW-A(-BS)

Specifications

Model			PURY-EP1000YSNW-A (-BS)	PURY-EP1050YSNW-A (-BS)	PURY-EP1100YSNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	113.0	118.0	124.0
		BTU/h	385,600	402,600	423,100
	Power input	kW	33.43	37.57	42.75
	EER	kW/kW	3.38	3.14	2.90
	EER (ErP)+	kW/kW	4.28	4.05	3.82
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)	-5.0~52.0 °C (23~126 °F)
Heating capacity (Max)	*2	kW	127.0	132.0	140.0
		BTU/h	433,300	450,400	477,700
	Power input	kW	31.43	37.28	46.05
	COP	kW/kW	4.04	3.54	3.04
	COP (ErP)+	kW/kW	4.30	4.05	3.80
(Nominal)	*3	kW	113.0	118.0	124.0
		BTU/h	385,600	402,600	423,100
	Power input	kW	24.50	26.69	29.24
	COP	kW/kW	4.61	4.42	4.24
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)	15.0~27.0 °C (59~81 °F)
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)	-20.0~15.5 °C (-4~60 °F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/3~50	P15~P250/3~50
Sound pressure level (measured in anechoic room)	*4	dB <A>	66.5 / 67.5	68.0 / 73.0	69.0 / 73.0
Sound power level (measured in anechoic room)	*4	dB <A>	85.0 / 87.0	86.0 / 92.0	86.5 / 92.0
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed
	Low pressure	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PURY-EP500YNW-A (-BS)	PURY-EP500YNW-A (-BS)	PURY-EP500YNW-A (-BS)	PURY-EP550YNW-A (-BS)*	PURY-EP550YNW-A (-BS)*	PURY-EP550YNW-A (-BS)*
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	295	295	295	410	410	410
		L/s	4,917	4,917	4,917	6,833	6,833	6,833
		cfm	10,416	10,416	10,416	14,477	14,477	14,477
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2
	*5 External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	13.0	13.0	13.0	14.3	14.3	14.3
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		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 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740	1,858 (1,798 without legs) x 1,750 x 740
		in.	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 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)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-	-	-	-	-	-
	Fan motor		-	-	-	-	-	-
Refrigerant	Type x original charge		R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)
Net weight		kg (lbs)	345 (761)	345 (761)	345 (761)	345 (761)	345 (761)	345 (761)
Heat exchanger			Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB		Outdoor Twinning kit: CMY-R200VBK4 Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P1016V-KA Sub BC controller: CMB-P104V-KB	

Notes:

*1,*2 Nominal conditions (subject to JIS B8615-2) + ErP Lot 21/6 calculation method to EN14825

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27ºC DB/19ºC WB (81ºF DB/66ºF WB)	35ºC DB/24ºC WB (95ºF DB/75ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºC DB(68ºF DB)	7ºC DB/6ºC WB(45ºF DB/43ºF WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 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.)
Eurovent registered
*4 Cooling mode / Heating mode
*5 External static pressure option is available (30Pa, 60Pa, 80Pa / 3.1mmH_2O, 6.1mmH_2O, 8.2mmH_2O).
Consult your dealer about the specification when setting External static pressure option.
*Due to continuing improvement, above specification may be subject to change without notice.
*22HP (P550) can be used only in combination with others.

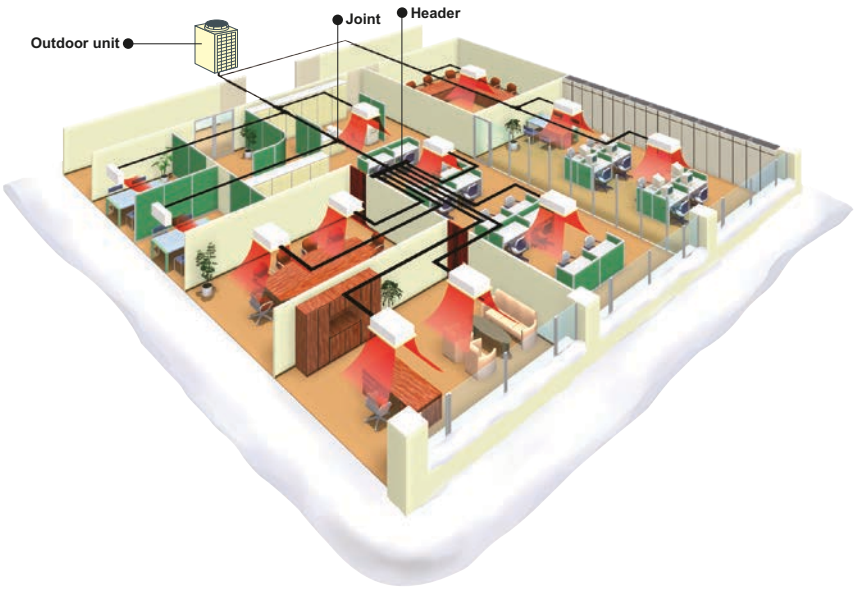
Heating or Cooling

ZUBADAN series — PUHY-HP YHM-A(-BS)
PUHY-HP YSHM-A(-BS)

Bringing year round comfort solutions to extreme climates

CITY MULTI ZUBADAN series combines the ultimate in application flexibility and powerful cooling and heating capabilities to deliver precise comfort even in the coldest days of the year down to -25°C.
The technology behind this is a Flash Injection Circuit which provides the optimum amount of refrigerant to the system via a compressor through a specially designed injection port to ensure a particularly stable operation. With this, ZUBADAN can provide full heating performance even at -15°C and continuous heating for up to 250 minutes in one continuous cycle, ensuring phenomenal heating performance at low temperatures.

Installation image

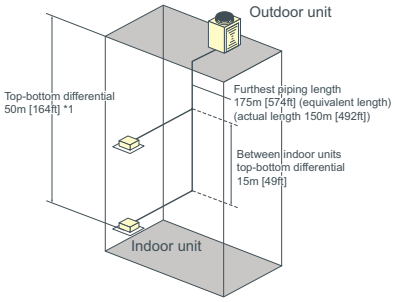


System Pipe Lengths

[8-10HP]

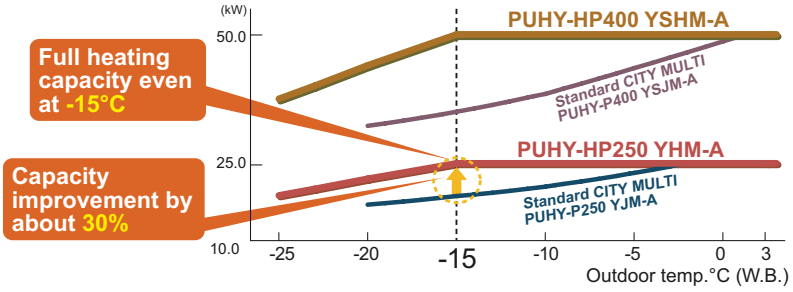
Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	300 [984]
Maximum allowable length	150 (175equivalent) [492 (574)]
Farthest indoor from first branch	40 [131]

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]



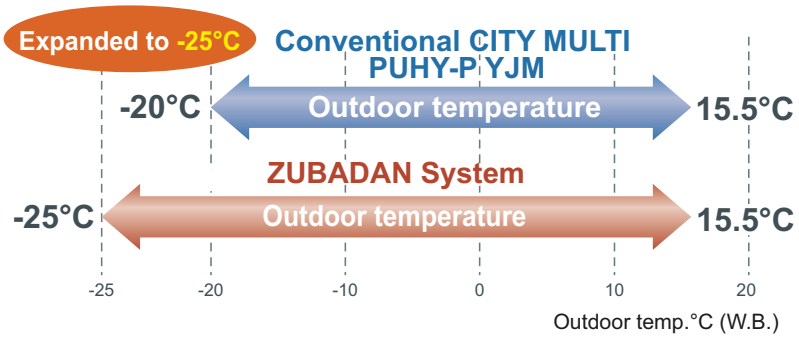
*1 When the outdoor unit is installed below the indoor unit, top-bottom differential is 40m [131 ft].

Stable Heating Performance even at -15°C

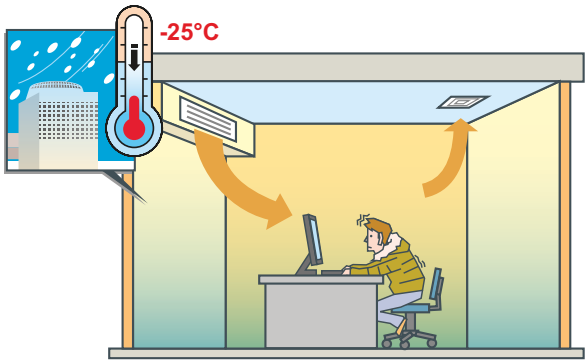


Using an industry first 'Flash-injection Circuit', the ZUBADAN System is able to provide FULL heating performance in ambient temperatures as low as -15°C.

Expanded Heating Operation down to -25°C

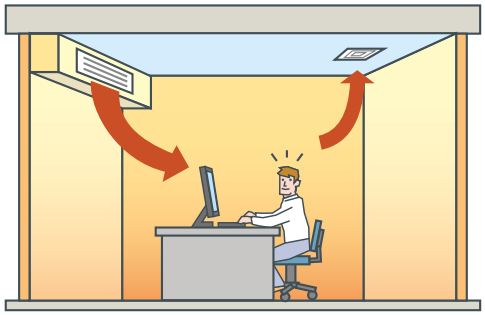


From a previous LOWEST operating ambient temperature of -20°C, the ZUBADAN System pushes the boundaries of technology to give heating in ambient temperatures as low as -25°C.



Previously, heating performance dropped off when the temperature fell below -20°C!

With ZUBADAN System



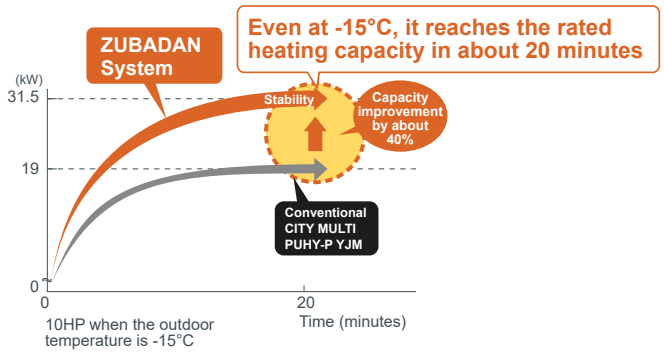
The new ZUBADAN System has no trouble keeping the occupants nice and warm at such temperatures.

High Static Pressure Setting

With our new ZUBADAN model, high static pressure setting up to 60Pa is available by setting the dip switch (0Pa at factory setting) making it an ideal and flexible solution for any type of application.

Shorter Warm-up in about 20 Min.

With its new improved startup performance, the ZUBADAN system achieves full heating capacity even when outdoor temperatures are as low as -15°C. Heating capacity, about 20 minutes after startup is improved by 40% compared to conventional models; ensuring occupants have an immediate comfortable air solution.



Heating capacity

Reliable and Long Product Life Cycle

Backup Function
(HP400 and HP500 models)

The ZUBADAN system ensures an exceptionally high level of reliability by utilising a new backup function, which can be easily operated in the event of a malfunction from an indoor unit remote controller.

Rotation Function
(HP400 and HP500 models)

Running outdoor units alternately using its newly developed ‘Rotation Function’, the system is able to ensure an optimum product life cycle for both of its component units.

Maximum Stable Operation

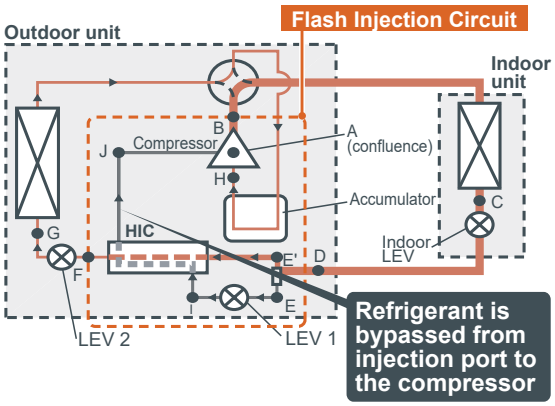
By utilising our advanced Flash Injection Circuit, the system can not only provide continuous heating for up to 250 minutes in one continuous cycle, but also significantly lessens defrost time to give exceptionally stable heating operation.

Heating up to 250 min. straight

Reduced Defrosting time

Startup Comfort

One of the key factors of the units' newly designed Flash Injection Circuit is that the optimal amount of refrigerant can be provided to the system via the compressor through a specially designed injection port to ensure particularly stable operation. In simple terms, the system allows a quick startup time and continuous heating; even in low ambient conditions.

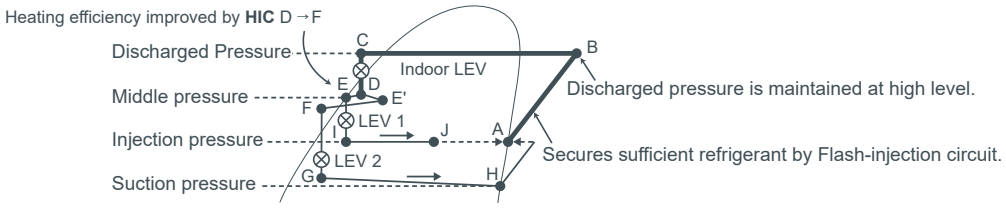


Note: **Heat Interchange Circuit (HIC)**
Heating efficiency is improved by enhancing the recollection of heat at the outdoor unit with the low temperature refrigerant from the HIC.

Constant Comfort

With its new highly effective defrost feature (which prevents automatic defrosting when it is not required), the ZUBADAN System can deliver conditioned heating operation for up to 250 minutes in one continuous cycle!

Heating capacity is maintained by the Flash-injection circuit.



[Pressure Enthalpy diagram showing HIC]

OUTDOOR UNIT
ZUBADAN (Heat Pump) Series(Y)
PUHY-HP Y(S)HM-A(-BS)

▸Specifications

Set name			PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)	PUHY-HP400YSHM-A(-BS)	PUHY-HP500YSHM-A(-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1	kW	22.4	28.0	45.0	56.0
	*1	BTU/h	76,400	95,500	153,500	191,100
	Power input	kW	6.40	9.06	12.86	18.16
	Current input	A	10.8-10.2-9.8	15.2-14.5-14.0	21.7-20.6-19.8	30.6-29.1-28.0
	COP	kW/kW	3.50	3.09	3.49	3.08
Temp. range of cooling	Indoor	W.B.	15 ~ 24°C (59 ~ 75°F)			
	Outdoor	D.B.	- 5 ~ 43°C (23 ~ 109°F)			
Heating capacity (Nominal)	*2	kW	25.0	31.5	50.0	63.0
	*2	BTU/h	85,300	107,500	170,600	215,000
	Power input	kW	6.52	8.94	13.35	18.04
	Current input	A	11.0-10.4-10.0	15.0-14.3-13.8	22.5-21.4-20.6	30.4-28.9-27.8
	COP	kW/kW	3.83	3.52	3.74	3.49
Temp. range of heating	Indoor	D.B.	15 ~ 27°C (59 ~ 81°F)			
	Outdoor	W.B.	-25 ~ 15.5°C (-13 ~ 60°F)			
Indoor unit connectable	Total capacity		50 ~ 130% of outdoor unit capacity			
	Model/Quantity		P15~P250 / 1~17	P15 ~ P250 / 1 ~ 21	P15 ~ P250 / 1 ~ 34	P15 ~ P250 / 1 ~ 43
Sound pressure level (measured in anechoic room)		dB<A>	56	57	59	60
Diameter of refrigerant pipe	Liquid pipe	mm(in.)	ø12.7 (ø1/2) Brazed	ø12.7 (ø1/2) Brazed	ø15.88 (ø5/8) Brazed	ø15.88 (ø5/8) Brazed
	Gas pipe	mm(in.)	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed	ø28.58 (ø1-1/8) Brazed
Model			-		PUHY-HP200YHM-A(-BS)	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)	PUHY-HP250YHM-A(-BS)
External finish			Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>			
External dimension H x W x D		mm	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760
		in.	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16
Net weight		kg(lbs)	220 (486)	220 (486)	220 (486)	220 (486)	220 (486)	220 (486)
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube			
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor			
	Starting method		Inverter		Inverter			
	Motor output	kW	5.3	6.7	5.3	5.3	6.7	6.7
FAN	*3 Air flow rate	m^3/min	225	225	225	225	225	225
		L/s	3,750	3,750	3,750	3,750	3,750	3,750
		cfm	7,945	7,945	7,945	7,945	7,945	7,945
	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection		Over-heat protection			
Refrigerant	Type x Original charge		R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)
Pipe between unit distributor	Liquid pipe	mm(in.)	-	-	ø9.52 (ø3/8) Flare	ø9.52 (ø3/8) Flare	ø9.52 (ø3/8) Flare	ø9.52 (ø3/8) Flare
	Gas pipe	mm(in.)	-	-	ø19.05 (ø3/4) Brazed	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	ø22.2 (ø7/8) Brazed
Optional parts			Joint : CMY-Y102SS-G2 Header : CMY-Y104/108/1010-G		Outdoor Twinning kit : CMY-Y100VBK2 Joint : CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header : CMY-Y104/108/1010-G			

Notes:

*1,*2 Nominal conditions

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB(95°F DB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB(68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

Heating or Cooling

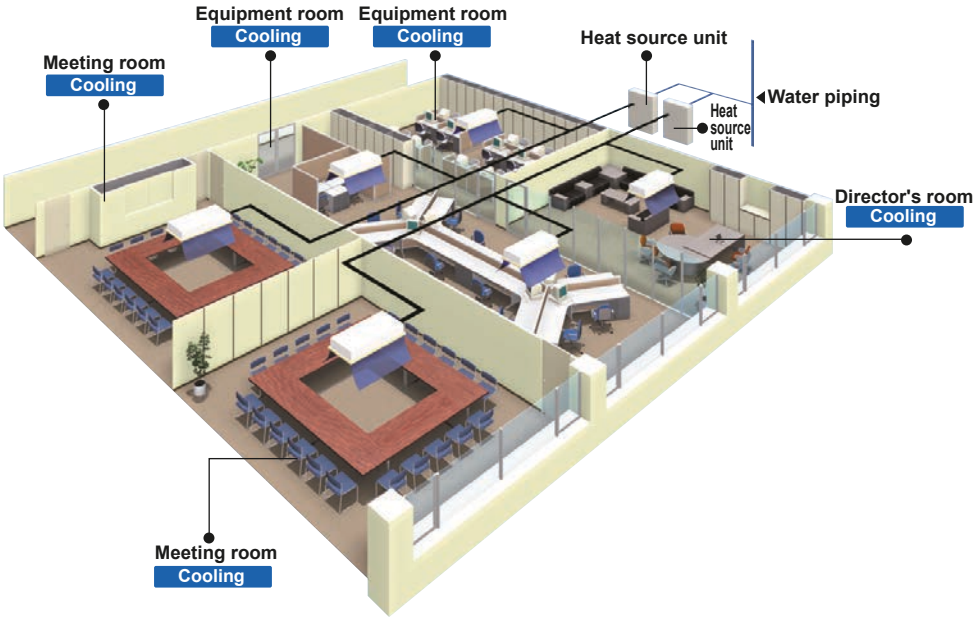
WY series — PQHY-P Y(S)LM-A

[WY (Heat Pump) series]

Water energy source system allows switching between heating and cooling.

The WY-Series has all the benefits of the Y-Series using water source condensing units.
Condensing units can be situated indoors allowing greater design flexibility and no limitation on building size. Depending on capacity, up to 15 to 50 indoor units can be connected to a single condensing unit with individualised and/or centralised control. The two-pipe system allows all CITY MULTI solutions to switch between heating and cooling while maintaining a constant indoor temperature.

Installation image (WY series)

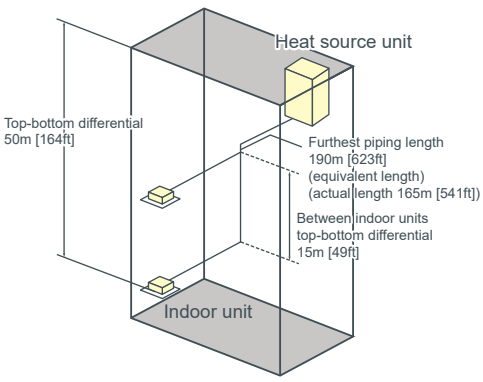


System Pipe Lengths

[P200-P900 (WY series)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	300-500 [984-1640]
Maximum allowable length	165 (190 equivalent) [541(623)]
Farthest indoor from first branch	40 [131]

Vertical differentials between units	Maximum meters [Feet]
Indoor/heat source (heat source higher)	50 [164]
Indoor/heat source (heat source lower)	40 [131]
Indoor/indoor	15 [49]



Outdoor Unit

HEAT SOURCE UNIT
WY (Heat Pump) Series
PQHY-P YLM-A

NEW

► Specifications

Model			PQHY-P200YLM-A	PQHY-P250YLM-A	PQHY-P300YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5
		kcal / h	20,000	25,000	30,000
	*1	BTU / h	76,400	95,500	114,300
	Power input	kW	3.71	4.90	6.04
	Current input	A	6.2-5.9-5.7	8.2-7.8-7.5	10.1-9.6-9.3
	EER	kW / kW	6.03	5.71	5.54
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5
		kcal / h	21,500	27,100	32,300
	*2	BTU / h	85,300	107,500	128,000
	Power input	kW	3.97	5.08	6.25
	Current input	A	6.7-6.3-6.1	8.5-8.1-7.8	10.5-10.0-9.6
	COP	kW / kW	6.29	6.20	6.00
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/1~17	P15~P250/1~21	P15~P250/1~26
Sound pressure level (measured in anechoic room)		dB <A>	46	48	54
Refrigerant piping diameter	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)
	Gas pipe	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Circulating water	Water flow rate	m^3 / h	5.76	5.76	5.76
		L/min	96	96	96
		cfm	3.4	3.4	3.4
	Pressure drop	kPa	24	24	24
	Operating volume range	m^3 / h	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	4.8	6.2	7.7
	Case heater	kW	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
Net weight		kg (lbs)	174 (384)	174 (384)	174 (384)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WY (Heat Pump) Series
PQHY-P YLM-A

NEW

► Specifications

Model			PQHY-P350YLM-A	PQHY-P400YLM-A	PQHY-P450YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	40.0	45.0	50.0
		kcal / h	35,000	40,000	45,000
	*1	BTU / h	136,500	153,500	170,600
	Power input	kW	7.14	8.03	9.29
	Current input	A	12.0-11.4-11.0	13.5-12.8-12.4	15.6-14.8-14.3
	EER	kW / kW	5.60	5.60	5.38
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	45.0	50.0	56.0
		kcal / h	40,000	45,000	50,000
	*2	BTU / h	153,500	170,600	191,100
	Power input	kW	7.53	8.37	9.79
	Current input	A	12.7-12.0-11.6	14.1-13.4-12.9	16.5-15.7-15.1
	COP	kW / kW	5.97	5.97	5.72
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/1~30	P15~P250/1~34	P15~P250/1~39
Sound pressure level (measured in anechoic room)		dB <A>	52	52	54
Refrigerant piping diameter	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m^3 / h	7.20	7.20	7.20
		L/min	120	120	120
		cfm	4.2	4.2	4.2
	Pressure drop	kPa	44	44	44
	Operating volume range	m^3 / h	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	9.5	10.7	11.6
	Case heater	kW	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	217 (479)	217 (479)	217 (479)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WY (Heat Pump) Series
PQHY-P YLM-A

NEW

► Specifications

Model			PQHY-P500YLM-A	PQHY-P550YLM-A	PQHY-P600YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	56.0	63.0	69.0
		kcal / h	50,000	55,000	60,000
	*1	BTU / h	191,100	215,000	235,400
	Power input	kW	11.17	12.54	14.49
	Current input	A	18.8-17.9-17.2	21.1-20.1-19.3	24.4-23.2-22.3
	EER	kW / kW	5.01	5.02	4.76
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	63.0	69.0	76.5
		kcal / h	55,000	60,000	65,800
	*2	BTU / h	215,000	235,400	261,000
	Power input	kW	11.43	12.27	14.51
	Current input	A	19.2-18.3-17.6	20.7-19.6-18.9	24.4-23.2-22.4
	COP	kW / kW	5.51	5.62	5.27
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/1~43	P15~P250/2~47	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	54	56.5	56.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m^3 / h	7.20	11.52	11.52
		L/min	120	192	192
		cfm	4.2	6.8	6.8
	Pressure drop	kPa	44	45	45
	Operating volume range	m^3 / h	4.5 ~ 11.6	6.0 ~ 14.4	6.0 ~ 14.4
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	13.0	15.0	16.1
	Case heater	kW	–	0.045 (240 V)	0.045 (240 V)
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 11.7 kg (26 lbs)	R410A x 11.7 kg (26 lbs)
Net weight		kg (lbs)	217 (479)	246 (543)	246 (543)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	10.0	10.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WY (Heat Pump) Series
PQHY-P YSLM-A

NEW

► Specifications

Model			PQHY-P700YSLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	80.0
		kcal / h	68,800
	*1	BTU / h	273,000
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	EER	kW / kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	88.0
		kcal / h	75,700
	*2	BTU / h	300,300
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	COP	kW / kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model / Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQHY-P350YLM-A	PQHY-P350YLM-A
Circulating water	Water flow rate	m^3 / h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3 / h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	–	–
External finish			Galvanized steel sheets	
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	217 (479)	217 (479)
Heat exchanger			plate type	plate type
	Water volume in plate	L	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WY (Heat Pump) Series
PQHY-P YSLM-A

NEW

► Specifications

Model			PQHY-P750YSLM-A	PQHY-P800YSLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	85.0	90.0
		kcal / h	73,100	77,400
	*1	BTU / h	290,000	307,100
	Power input	kW	15.64	16.57
	Current input	A	26.4-25.0-24.1	27.9-26.5-25.6
	EER	kW / kW	5.43	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	95.0	100.0
		kcal / h	81,700	86,000
	*2	BTU / h	324,100	341,200
	Power input	kW	15.90	16.75
	Current input	A	26.8-25.4-24.5	28.2-26.8-25.8
	COP	kW / kW	5.97	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55	55
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model			PQHY-P400YLM-A	PQHY-P350YLM-A	PQHY-P400YLM-A	PQHY-P400YLM-A
Circulating water	Water flow rate	m^3 / h	7.20 + 7.20		7.20 + 7.20	
		L/min	120 + 120		120 + 120	
		cfm	4.2 + 4.2		4.2 + 4.2	
	Pressure drop	kPa	44	44	44	44
	Operating volume range	m^3 / h	4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.7	9.5	10.7	10.7
	Case heater	kW	–	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	217 (479)	217 (479)	217 (479)	217 (479)
Heat exchanger			plate type	plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G		Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WY (Heat Pump) Series
PQHY-P YSLM-A

NEW

► Specifications

Model			PQHY-P850YSLM-A	PQHY-P900YSLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0	101.0
		kcal / h	82,600	86,900
	*1	BTU / h	327,600	344,600
	Power input	kW	18.03	19.38
	Current input	A	30.4-28.9-27.8	32.7-31.0-29.9
	EER	kW / kW	5.32	5.21
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	108.0	113.0
		kcal / h	92,900	97,200
	*2	BTU / h	368,500	385,600
	Power input	kW	18.49	19.74
	Current input	A	31.2-29.6-28.5	33.3-31.6-30.5
	COP	kW / kW	5.84	5.72
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56	57
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PQHY-P450YLM-A	PQHY-P400YLM-A	PQHY-P450YLM-A	PQHY-P450YLM-A
Circulating water	Water flow rate	m^3 / h	7.20 + 7.20		7.20 + 7.20	
		L/min	120 + 120		120 + 120	
		cfm	4.2 + 4.2		4.2 + 4.2	
	Pressure drop	kPa	44	44	44	44
	Operating volume range	m^3 / h	4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	11.6	10.7	11.6	11.6
	Case heater	kW	–	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	217 (479)	217 (479)	217 (479)	217 (479)
Heat exchanger			plate type	plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G		Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Simultaneous Heating and Cooling

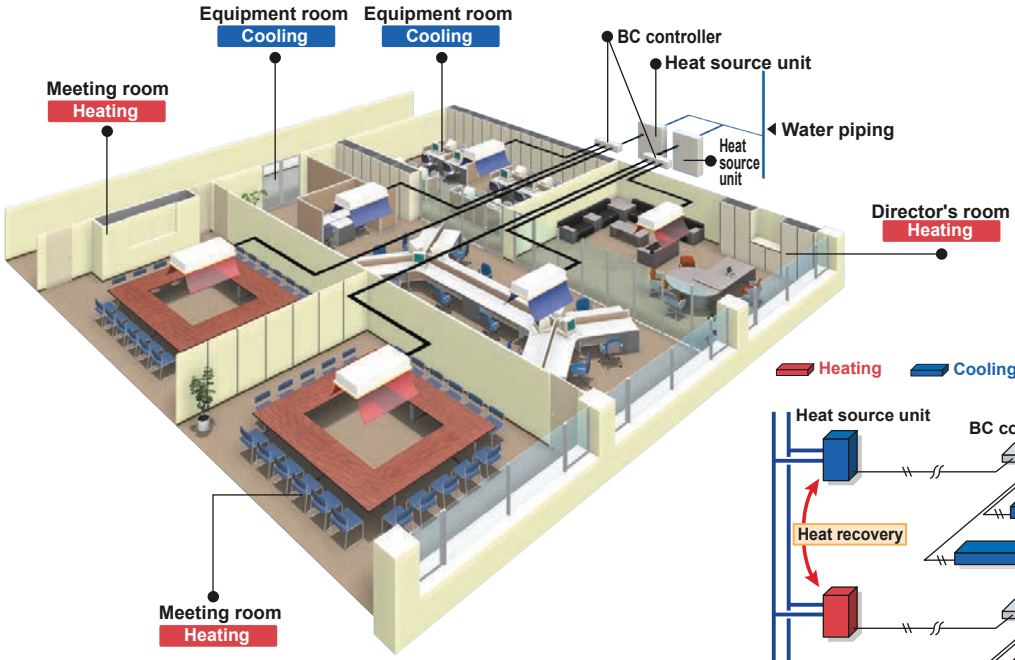
WR2 series — PQRY-P Y(S)LM-A

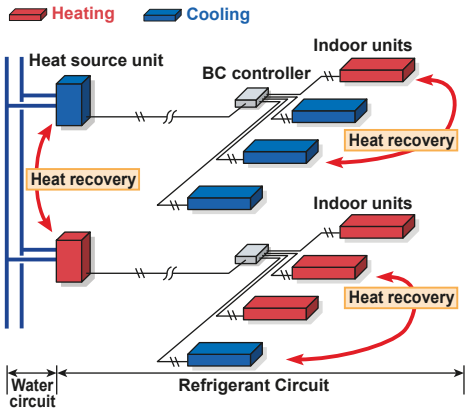
[WR2 (Heat Recovery) series]

Advanced water heat source unit enjoying the benefits of R2 series

The CITY MULTI WR2 series provides all of the advantages of the R2 series with the added advantages of a water heat source system, making it suitable for a wider range of applications in high rises, frigid climates, coastal areas, etc.
Not only does it produce heat recovery from the indoor units on the same 2-pipe refrigerant circuit, it also produces heat recovery via the water circuit between heat source units, making it a very economical system.

Installation image (WR2 series)





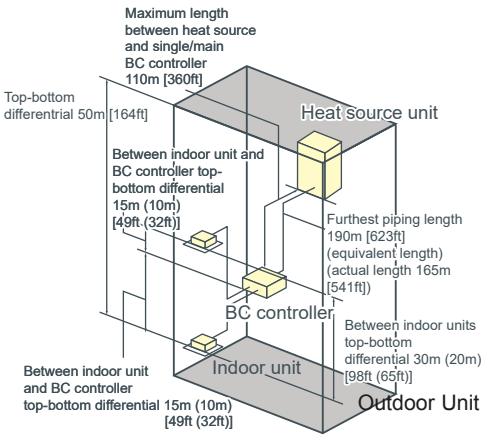
Double heat recovery (WR2)

[P200-P900 (WR2 series)]

System Pipe Lengths

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	550-750 [1,804-2,460]
Maximum allowable length	165 (190 equivalent) [541 (623)]
Maximum length between heat source and single/main BC controller	110 [360]*1
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller.	
Maximum length between single/main BC controller and indoor	40 [131]*2

Vertical differentials between units	Maximum meters [Feet]
Indoor/ heat source (heat source higher)	50 [164]
Indoor/ heat source (heat source lower)	40 [131]
Indoor/BC controller (single/main)	15 (10) [49 (32)]*3
Indoor/indoor	30 (20) [98 (65)]*4
Main BC Controller/Sub BC Controller	15 (10) [49 (32)]*5



*1 Details refer to the DATA BOOK.
*2 Farthest Indoor from BC controller can exceed 40m [131ft.] till 60m [197ft.] if no Indoor sized P200, P250 connected.
Details refer to the DATA BOOK.
*3 Distance of Indoor sized P200, P250 from BC must be less than 10m [32ft.] , if any.
*4 Distance of Indoor sized P200, P250 from IU must be less than 20m [65ft.] , if any.
*5 Distance between BC (Main) and BC (Sub) must be less than 10 m, if two BC (Sub) are installed or Indoor sized P200 and/or P250 is connected.

HEAT SOURCE UNIT
WR2 (Heat Recovery) Series
PQRY-P YLM-A

NEW

▸ Specifications

Model			PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5
		kcal / h	20,000	25,000	30,000
	*1	BTU / h	76,400	95,500	114,300
	Power input	kW	3.71	4.90	6.04
	Current input	A	6.2-5.9-5.7	8.2-7.8-7.5	10.1-9.6-9.3
	EER	kW / kW	6.03	5.71	5.54
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5
		kcal / h	21,500	27,100	32,300
	*2	BTU / h	85,300	107,500	128,000
	Power input	kW	3.97	5.08	6.25
	Current input	A	6.7-6.3-6.1	8.5-8.1-7.8	10.5-10.0-9.6
	COP	kW / kW	6.29	6.20	6.00
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity
	Model / Quantity		P15~P250/1~20	P15~P250/1~25	P15~P250/1~30
Sound pressure level (measured in anechoic room)		dB <A>	46	48	54
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Circulating water	Water flow rate	m^3 / h	5.76	5.76	5.76
		L/min	96	96	96
		cfm	3.4	3.4	3.4
	Pressure drop	kPa	24	24	24
	Operating volume range	m^3 / h	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	4.8	6.2	7.7
	Case heater	kW	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
Net weight		kg (lbs)	172 (380)	172 (380)	172 (380)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WR2 (Heat Recovery) Series
PQRY-P YLM-A

NEW

► Specifications

Model			PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P450YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	40.0	45.0	50.0
		kcal / h	35,000	40,000	45,000
	*1	BTU / h	136,500	153,500	170,600
	Power input	kW	7.14	8.03	9.29
	Current input	A	12.0-11.4-11.0	13.5-12.8-12.4	15.6-14.8-14.3
	EER	kW / kW	5.60	5.60	5.38
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	45.0	50.0	56.0
		kcal / h	40,000	45,000	50,000
	*2	BTU / h	153,500	170,600	191,100
	Power input	kW	7.53	8.37	9.79
	Current input	A	12.7-12.0-11.6	14.1-13.4-12.9	16.5-15.7-15.1
	COP	kW / kW	5.97	5.97	5.72
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity
	Model / Quantity		P15~P250/1~35	P15~P250/1~40	P15~P250/1~45
Sound pressure level (measured in anechoic room)		dB <A>	52	52	54
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m^3 / h	7.20	7.20	7.20
		L/min	120	120	120
		cfm	4.2	4.2	4.2
	Pressure drop	kPa	44	44	44
	Operating volume range	m^3 / h	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	9.5	10.7	11.6
	Case heater	kW	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	216 (477)	216 (477)	216 (477)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WR2 (Heat Recovery) Series
PQRY-P YLM-A

NEW

▸ Specifications

Model				PQRY-P500YLM-A	PQRY-P550YLM-A	PQRY-P600YLM-A
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	56.0	63.0	69.0
			kcal / h	50,000	55,000	60,000
		*1	BTU / h	191,100	215,000	235,400
	Power input		kW	11.17	12.54	14.49
	Current input		A	18.8-17.9-17.2	21.1-20.1-19.3	24.4-23.2-22.3
	EER		kW / kW	5.01	5.02	4.76
Temp. range of cooling	Indoor		W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water		°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)		*2	kW	63.0	69.0	76.5
			kcal / h	55,000	60,000	65,800
		*2	BTU / h	215,000	235,400	261,000
	Power input		kW	11.43	12.27	14.51
	Current input		A	19.2-18.3-17.6	20.7-19.6-18.9	24.4-23.2-22.4
	COP		kW / kW	5.51	5.62	5.27
Temp. range of heating	Indoor		D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water		°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity			50~150% of heat source unit capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity
	Model / Quantity			P15~P250/1~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)			dB <A>	54	56.5	56.5
Refrigerant piping diameter	High pressure		mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)
	Low pressure		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
Circulating water	Water flow rate		m^3 / h	7.20	11.52	11.52
			L/min	120	192	192
			cfm	4.2	6.8	6.8
	Pressure drop		kPa	44	45	45
	Operating volume range		m^3 / h	4.5 ~ 11.6	6.0 ~ 14.4	6.0 ~ 14.4
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	13.0	15.0	16.1
	Case heater		kW	–	0.045 (240 V)	0.045 (240 V)
External finish				Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD			mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
			in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge			R410A x 6.0 kg (14 lbs)	R410A x 11.7 kg (26 lbs)	R410A x 11.7 kg (26 lbs)
Net weight			kg (lbs)	216 (477)	246 (543)	246 (543)
Heat exchanger				plate type	plate type	plate type
	Water volume in plate		L	5.0	10.0	10.0
	Water pressure Max.		MPa	2.0	2.0	2.0
Optional parts				Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27ºCD.B./19ºCW.B. (81ºFD.B./66ºFW.B.)	30ºC (86ºF)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20ºCD.B. (68ºFD.B.)	20ºC (68ºF)		

*The ambient temperature of the heat source unit needs to be kept below 40ºCD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WR2 (Heat Recovery) Series
PQRY-P YSLM-A

► Specifications

Model			PQRY-P700YSLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	80.0
		kcal / h	68,800
	*1	BTU / h	273,000
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	EER	kW / kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	88.0
		kcal / h	75,700
	*2	BTU / h	300,300
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	COP	kW / kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model / Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQRY-P350YLM-A	PQRY-P350YLM-A
Circulating water	Water flow rate	m^3 / h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3 / h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	–	–
External finish			Galvanized steel sheets	
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	216 (477)	216 (477)
Heat exchanger			plate type	plate type
	Water volume in plate	L	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WR2 (Heat Recovery) Series
PQRY-P YSLM-A

NEW

► Specifications

Model			PQRY-P750YSLM-A	PQRY-P800YSLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	85.0	90.0
		kcal / h	73,100	77,400
	*1	BTU / h	290,000	307,100
	Power input	kW	15.64	16.57
	Current input	A	26.4-25.0-24.1	27.9-26.5-25.6
	EER	kW / kW	5.43	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	95.0	100.0
		kcal / h	81,700	86,000
	*2	BTU / h	324,100	341,200
	Power input	kW	15.90	16.75
	Current input	A	26.8-25.4-24.5	28.2-26.8-25.8
	COP	kW / kW	5.97	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55	55
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model			PQRY-P400YLM-A	PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P400YLM-A
Circulating water	Water flow rate	m^3 / h	7.20 + 7.20		7.20 + 7.20	
		L/min	120 + 120		120 + 120	
		cfm	4.2 + 4.2		4.2 + 4.2	
	Pressure drop	kPa	44	44	44	44
	Operating volume range	m^3 / h	4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.7	9.5	10.7	10.7
	Case heater	kW	–	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	216 (477)	216 (477)	216 (477)	216 (477)
Heat exchanger			plate type	plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1		Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT
WR2 (Heat Recovery) Series
PQRY-P YSLM-A

NEW

► Specifications

Model			PQRY-P850YSLM-A	PQRY-P900YSLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0	101.0
		kcal / h	82,600	86,900
	*1	BTU / h	327,600	344,600
	Power input	kW	18.03	19.38
	Current input	A	30.4-28.9-27.8	32.7-31.0-29.9
	EER	kW / kW	5.32	5.21
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	108.0	113.0
		kcal / h	92,900	97,200
	*2	BTU / h	368,500	385,600
	Power input	kW	18.49	19.74
	Current input	A	31.2-29.6-28.5	33.3-31.6-30.5
	COP	kW / kW	5.84	5.72
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56	57
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model

Model			PQRY-P450YLM-A	PQRY-P400YLM-A	PQRY-P450YLM-A	PQRY-P450YLM-A
Circulating water	Water flow rate	m^3 / h	7.20 + 7.20		7.20 + 7.20	
		L/min	120 + 120		120 + 120	
		cfm	4.2 + 4.2		4.2 + 4.2	
	Pressure drop	kPa	44	44	44	44
	Operating volume range	m^3 / h	4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	11.6	10.7	11.6	11.6
	Case heater	kW	–	–	–	–
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	216 (477)	216 (477)	216 (477)	216 (477)
Heat exchanger			plate type	plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1		Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	

Notes:

*1,*2 Nominal conditions

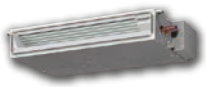
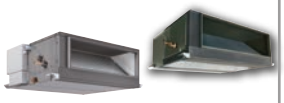
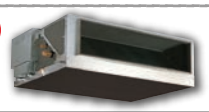
	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°CD.B./19°CW.B. (81°FD.B./66°FW.B.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CD.B. (68°FD.B.)	20°C (68°F)		

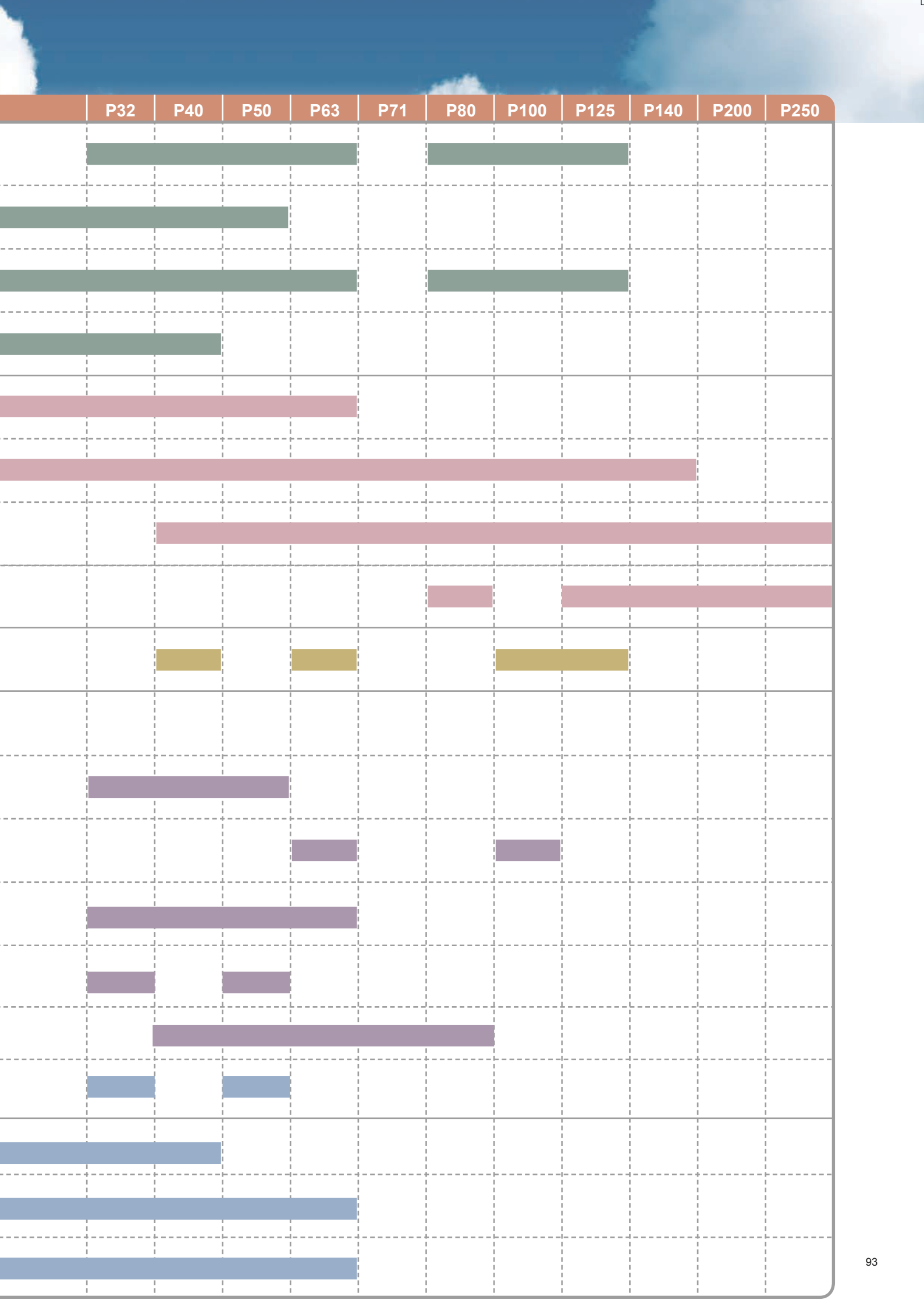
*The ambient temperature of the heat source unit needs to be kept below 40°CD.B.
*The ambient relative humidity of the heat source unit needs to be kept below 80%.
*The heat source unit should not be installed at outdoor.
*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
*Be sure to provide interlocking for the unit operation and water circuit.
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Indoor Unit

- Ceiling cassette type 4-way airflow
- Ceiling cassette type 2-way airflow
- Ceiling cassette type 1-way airflow
- Ceiling concealed type
- Fresh Air Intake type
- Ceiling suspended type
- Wall mounted type
- Wall mounted type - Designer Series with external LEV Kit
- Floor standing exposed
- Floor mounted concealed type
- BC Controller
- Air to Water unit
- Lossnay
- Air Handling Unit Controller
- OA Processing Units

Wide Selection of Indoor Units

Type		Model name	Model	P15	P20	P25
Ceiling Cassette	4-way air flow	PLFY-P VBM-E Page94 - Page95				
		PLFY-P VFM-E1 Page96 - Page97	NEW 			
	2-way air flow	PLFY-P VLMD-E Page98 - Page99				
	1-way air flow	PMFY-P VBM-E Page100 - Page101				
Ceiling Concealed		PEFY-P VMS1(L)-E Page102 - Page103				
		PEFY-P VMA(L)-E Page104 - Page105				
		PEFY-P VMH-E2 PEFY-P VMH(S)-E Page106 - Page107				
	Fresh Air Intake	PEFY-P VMH-E-F PEFY-P VMHS-E-F Page108 - Page111	NEW 			
Ceiling Suspended		PCFY-P VKM-E Page112 - Page113				
Wall Mounted		PKFY-P VBM-E Page114 - Page115				
		PKFY-P VHM-E Page114 - Page115				
		PKFY-P VKM-E Page114 - Page115				
		MSZ-EF Designer Series Page116				
		MSZ-FH Page117	NEW 			
		MSZ-GE Page118	NEW 			
		MFZ-KJ Page119	NEW 			
Floor Standing/ Floor Mounted Concealed		PFFY-P VKM-E2 Page122 - Page123				
		PFFY-P VLEM-E Page124 - Page125				
		PFFY-P VLRM-E PFFY-P VLRMM-E Page126 - Page127				


P32
P40
P50
P63
P71
P80
P100
P125
P140
P200
P250

INDOOR UNIT
Ceiling cassette type 4-way airflow
PLFY-P VBM-E

i-see Sensor

The new 4-way cassette VBM offers 72 different airflow patterns, making it ideal for applications with ceilings up to 4.2 m (13-13/16ft) in height.

Automatic Air Speed Adjustment

Auto-Fan speed mode enables fast, effective operation during start-up.

The Auto-Fan speed mode is an additional fan speed setting to the usual four steps (Low, Mid1, Mid2 and High).
Auto-Fan speed mode ensures fast, effective operation on start-up by increasing the airflow speed initially, then reducing the airflow once set temperature is reached.

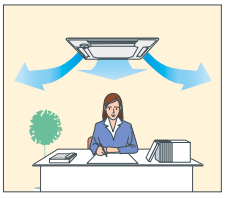
Controls the four fan speed modes automatically

Low → Mid1 → Mid2 → High → Auto

* When using a wireless remote controller, initial settings are required.

Draft-less Air Distribution

Horizontal airflow mode can be used to avoid drafts and discomfort to occupants. By directing the airflow horizontally, the unit creates a draft-free environment even at higher fan speeds.



IT terminal

IT terminal is available. For details, contact your local distributor.

Wide Air Flow

In Wide Airflow mode, discharged air can reach a wider area than conventional models, while fan speed decreases by 20% thanks to the units uniquely shaped air outlet.

72 patterns of airflow to accommodate any room layout are available.

First in the industry

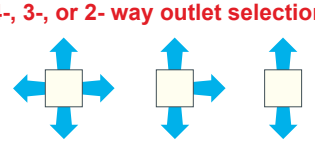
*On the commercial air conditioners (According to the survey by Mitsubishi Electric)

The number of outlets can be set to 4, 3, or 2. Flexible airflow is available by fixing the up-down airflow direction of the outlet with a wired remote controller (or manually).

72 airflow patterns

=

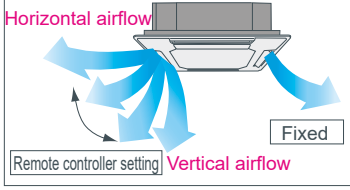
4-, 3-, or 2- way outlet selection*



* Optional parts air outlet shutter plate (PLFY-P VBM-E ONLY) is required for 2 or 3 way outlet selection.

×

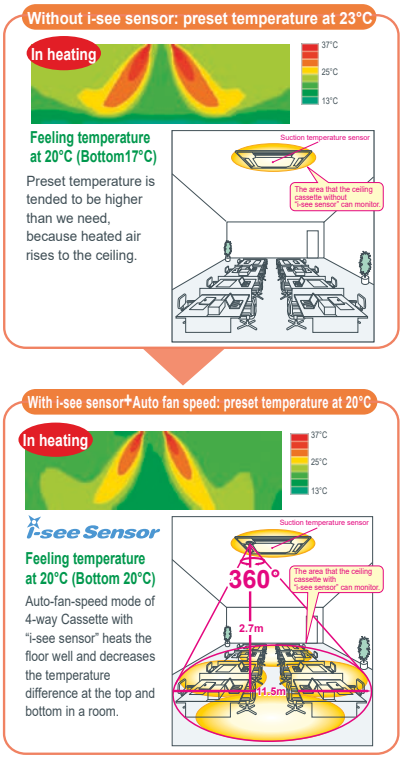
Setting the air direction for each outlet with wired remote controller



Optional "i-See" Sensor

The PLFY-VBM Cassette series can be fitted with an optional "i-See" Sensor (PAC-SA1ME-E). The i-See sensor seeks out and corrects temperature disparities within the room to ensure precise, even comfort.

Prevents overcooling/overheating, and improves comfort/energy-efficiency



▸Specifications

				PLFY-P32VBM-E	PLFY-P40VBM-E	PLFY-P50VBM-E
Power source				1-phase 220-240V 50Hz / 1-phase 220V 60Hz		
Cooling capacity		*1	kW	3.6	4.5	5.6
		*1	BTU/h	12,300	15,400	19,100
Heating capacity		*1	kW	4.0	5.0	6.3
		*1	BTU/h	13,600	17,100	21,500
Power consumption	Cooling		kW	0.03	0.04	0.04
	Heating		kW	0.02	0.03	0.03
Current	Cooling		A	0.27	0.29	0.29
	Heating		A	0.20	0.22	0.22
External finish (Munsell No.)	Unit			Galvanized steel sheet		
	Panel			MUNSELL (6.4Y 8.9/0.4)		
Dimension H x W x D	Unit		mm(in.)	258 x 840 x 840 (10-3/16 x 33-1/8 x 33-1/8)		
	Panel		mm(in.)	35 x 950 x 950 (1-3/8 x 37-7/16 x 37-7/16)		
Net weight	Unit		kg(lbs.)	22 (49)		
	Panel		kg(lbs.)	6 (13)		
Heat exchanger				Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity			Turbo fan x 1		
	Airflow rate (Lo-Mid2-Mid1-Hi)	*2	m^3/min	11-12-13-14	12-13-14-16	
			L/s	183-200-217-233	200-217-233-267	
			cfm	388-424-459-494	424-459-494-565	
	External static pressure		Pa	0		
Motor	Type			DC motor		
	Output		kW	0.050		
Air filter				PP Honeycomb		
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø12.7 (ø1/2)		ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)
	Liquid (Flare)		mm(in.)	ø6.35 (ø1/4)		ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)
Field drain pipe diameter			mm(in.)	O.D. 32 (1-1/4)		
Sound pressure level (Lo-Mid2-Mid1-Hi)		*2 *3	dB(A)	27-28-29-31	27-28-30-31	

				PLFY-P63VBM-E	PLFY-P80VBM-E	PLFY-P100VBM-E	PLFY-P125VBM-E
Power source				1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity		*1	kW	7.1	9.0	11.2	14.0
		*1	BTU/h	24,200	30,700	38,200	47,800
Heating capacity		*1	kW	8.0	10.0	12.5	16.0
		*1	BTU/h	27,300	34,100	42,700	54,600
Power consumption	Cooling		kW	0.05	0.07	0.15	0.16
	Heating		kW	0.04	0.06	0.14	0.15
Current	Cooling		A	0.36	0.51	1.00	1.07
	Heating		A	0.29	0.43	0.94	1.00
External finish (Munsell No.)	Unit			Galvanized steel sheet			
	Panel			MUNSELL (6.4Y 8.9/0.4)			
Dimension H x W x D	Unit		mm(in.)	258 x 840 x 840 (10-3/16 x 33-1/8 x 33-1/8)			
	Panel		mm(in.)	35 x 950 x 950 (1-3/8 x 37-7/16 x 37-7/16)			
Net weight	Unit		kg(lbs.)	23 (51)		27 (60)	
	Panel		kg(lbs.)	6 (13)			
Heat exchanger				Cross fin (Aluminum fin and copper tube)			
Fan	Type x Quantity			Turbo fan x 1			
	Airflow rate (Lo-Mid2-Mid1-Hi)	*2	m^3/min	14-15-16-18	16-18-20-22	21-24-27-29	22-25-28-30
			L/s	233-250-267-300	267-300-333-367	350-400-450-483	367-417-467-500
			cfm	494-530-565-636	565-636-706-777	742-848-953-1024	777-883-989-1059
	External static pressure		Pa	0			
Motor	Type			DC motor			
	Output		kW	0.050		0.120	
Air filter				PP Honeycomb			
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø15.88 (ø5/8)		ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	Liquid (Flare)		mm(in.)	ø9.52 (ø3/8)			
Field drain pipe diameter			mm(in.)	O.D. 32 (1-1/4)			
Sound pressure level (Lo-Mid2-Mid1-Hi)		*2 *3	dB(A)	28-29-30-32	30-32-35-37	34-37-39-41	35-38-41-43

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (Lo-Mid-Hi) or (Lo-Mid1-Mid2-Hi).

*3 It is measured in anechoic room at power source 230V.

INDOOR UNIT
Ceiling cassette type 4-way airflow

NEW

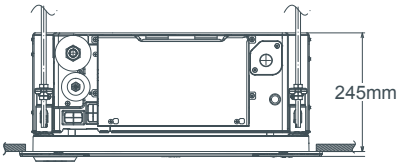
PLFY-P VFM-E1 3D i-see Sensor

The new 4-way cassette VFM with a beautiful square design introduces Mitsubishi Electric's new technology 3D i-see Sensor.

New Design

The height above ceiling 245mm

The height above ceiling of 245 mm is top class in the industry*, and enables fitting into narrow ceiling space.



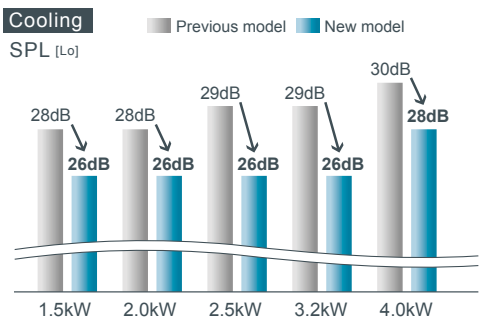
* As of Aug 2015. Among compact 4-way cassettes for system ceiling. (An incompany investigation.)

Beautiful square panel design

The straight-line form introduced has resulted in a beautiful square design.

Quietness

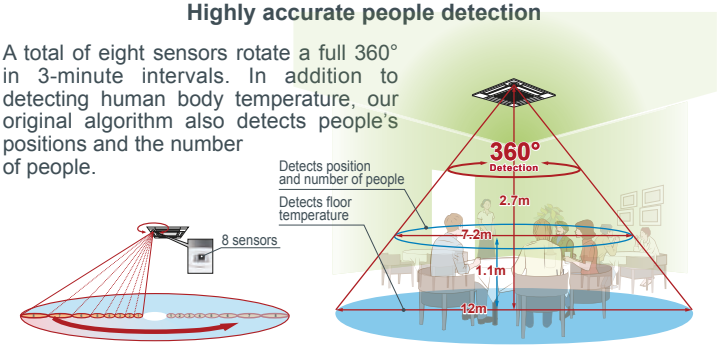
The sound level has been reduced by 2-3dB thanks to the introduction of a 3D turbo fan, for quieter and more comfortable air conditioning.



3D i-see Sensor

Highly accurate people detection

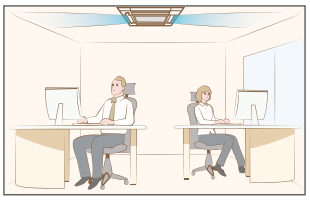
A total of eight sensors rotate a full 360° in 3-minute intervals. In addition to detecting human body temperature, our original algorithm also detects people's positions and the number of people.



*In case of a 2.7m ceiling

Detects people's position

Some people do not like the drafty-feeling, some want to be warm from head to toe.
People's likes and dislikes vary. With the 3D i-see Sensor, it is possible to choose "Direct Airflow" or "Indirect Airflow" for each vane. When the sensor detects people, it automatically adjusts the angle of the vane, enabling independent airflow pattern for the comfort of each person.



Direct/Indirect setting
The horizontal airflow spreads closely along the ceiling. When set to "Indirect Airflow", it helps to eliminate uncomfortable drafty-feeling dramatically.

Seasonal airflow
During heating mode, once the room temperature reaches to the pre-set temperature, the operation switches to circulator operation and blows the air horizontally. This provides smart heating by moving the hot air at ceiling level towards people's height.
*PAR-33MAA is required for each setting

Detects number of people Energy-saving mode

The 3D i-see Sensor detects the number of people in the room, and then calculates the occupancy rate based on the maximum number of people up to that time. Smart controling by switching power to energy-saving mode or turning to Auto-off helps to reduce energy consumption.

IT terminal

IT terminal is available. For details, contact your local distributor.

▸Specifications

				PLFY-P15VFM-E1	PLFY-P20VFM-E1	PLFY-P25VFM-E1	PLFY-P32VFM-E1	PLFY-P40VFM-E1	PLFY-P50VFM-E1
Power source				1-phase 220-240V 50Hz / 220V 60Hz					
Cooling capacity		*1	kW	1.7	2.2	2.8	3.6	4.5	5.6
		*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100
Heating capacity		*1	kW	1.9	2.5	3.2	4.0	5.0	6.3
		*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling		kW	0.02	0.02	0.02	0.02	0.03	0.04
	Heating		kW	0.02	0.02	0.02	0.02	0.03	0.04
Current	Cooling		A	0.19	0.21	0.22	0.23	0.28	0.40
	Heating		A	0.14	0.16	0.17	0.18	0.23	0.35
External finish (Munsell No.)	Unit			Galvanized steel sheet					
	Panel			MUNSELL (1.0Y 9.2/0.2)					
Dimension H x W x D	Unit		mm(in.)	208 x 570 x 570 (8-1/4 x 22-1/2 x 22-1/2)					
	Panel		mm(in.)	10 x 625 x 625 (3/8 x 24-5/8 x 24-5/8)					
Net weight	Unit		kg(lbs.)	14 (31)			15 (33)		
	Panel		kg(lbs.)	3 (7)					
Heat exchanger				Cross fin (Aluminum fin and copper tube)					
Fan	Type x Quantity			Turbo fan x 1					
	Airflow rate (Lo-Mid-Hi)		m^3/min	6.5-7.5-8.0	6.5-7.5-8.5	6.5-8.0-9.0	7.0-8.0-9.5	7.5-9.0-11.0	9.0-11.0-13.0
			L/s	108-125-133	108-125-142	108-133-150	117-133-158	125-150-183	150-183-217
			cfm	230-265-282	230-265-300	230-282-318	247-282-335	265-318-388	318-388-459
	External static pressure		Pa	0					
Motor	Type			DC motor					
	Output		kW	0.05					
Air filter				PP Honeycomb fabric (long life type)					
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø12.7 (ø1/2)					
	Liquid (Flare)		mm(in.)	ø6.35 (ø1/4)					
Field drain pipe diameter			mm(in.)	O.D. 32 (1-1/4) (PVC pipe VP-25 connectable)					
Sound pressure level *2 (Lo-Mid-Hi)			dB(A)	26-28-30	26-29-31	26-30-33	26-30-34	28-33-39	33-39-43

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

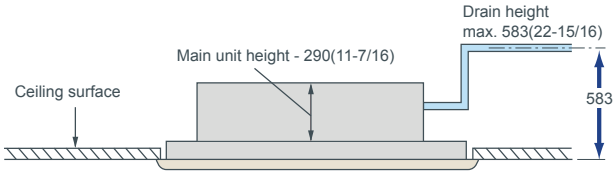
*2 It is measured in anechoic room at power source 230V.

INDOOR UNIT
Ceiling cassette type 2-way airflow
PLFY-P VLMD-E

Slim body of 290mm(11-7/16in.) height

Equipped with drain pump mechanism as standard

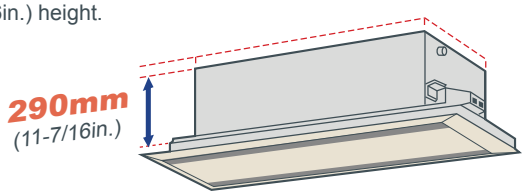
The drain can be positioned anywhere up to 583mm(22-15/16in.) from the ceiling's surface, providing greater freedom with long cross-piping and allowing more versatility with piping layouts.



mm (in.)

Slim body - only 290mm(11-7/16in.) height

The slimline body is highly suitable for installation in narrow ceiling spaces and for replacing obsolete air-conditioning equipment in older buildings. The main unit is only 290mm(11-7/16in.) height.



Terminal block on outside of main unit makes wiring easier

Compact unit and low noise level attained!

Sound pressure level table (Standard static pressure) at 0Pa

dB(A)

	Capacity		P20	P25	P32	P40	P50	P63	P80	P100	P125
Sound pressure Level	Fan Speed	High	33			36	37	39	39	42	46
		Mid	30			33	34	37	36	39	42/44
		Low	27			29	31	32	33	36	40

<220V,240V>

dB(A)

	Capacity		P20	P25	P32	P40	P50	P63	P80	P100	P125
Sound pressure Level	Fan Speed	High	34			37	38	40	40	43	46
		Mid	31			34	35	38	37	41	42/44
		Low	28			30	32	33	34	37	40

<230V>

Fresh air directly taken in

Fresh air can be taken in to the main unit directly (optional accessories needed.)

Long life filter equipped as standard

The antibacterial long life filter does not require maintenance for approximately a year.

Easy installation

Lighter panel and placing the electric board near the panel make installation and maintenance easier. Also, the heat exchanger is washable by displacing the center panel, filter, and fan.

▸Specifications

				PLFY-P20VLMD-E	PLFY-P25VLMD-E	PLFY-P32VLMD-E	PLFY-P40VLMD-E
Power source				1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz			
Cooling capacity		*1	kW	2.2	2.8	3.6	4.5
		*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity		*1	kW	2.5	3.2	4.0	5.0
		*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling		kW	0.072 / 0.075	0.072 / 0.075	0.072 / 0.075	0.081 / 0.085
	Heating		kW	0.065 / 0.069	0.065 / 0.069	0.065 / 0.069	0.074 / 0.079
Current	Cooling		A	0.36 / 0.37	0.36 / 0.37	0.36 / 0.37	0.40 / 0.42
	Heating		A	0.30 / 0.32	0.30 / 0.32	0.30 / 0.32	0.34 / 0.37
External finish (Munsell No.)	Unit			Galvanized steel plate			
	Panel			Pure white (6.4Y 8.9/0.4)			
Dimension H x W x D	Unit		mm (in.)	290 x 776 x 634 (11-7/16 x 30-9/16 x 25)			
	Panel		mm (in.)	20 x 1080 x 710 (13/16 x 42-9/16 x 28)			
Net weight	Unit		kg(lbs.)	23 (51)		24 (53)	
	Panel		kg(lbs.)	6.5 (15)			
Heat exchanger				Cross fin			
Fan	Type x Quantity			Turbo fan x 1			
	Airflow rate (Lo-Mid-Hi)	*2	m^3/min	6.5-8.0-9.5			7.0-8.5-10.5
			L/s	108-133-158			117-142-175
			cfm	230-283-335			247-300-371
	External static pressure		Pa	0			
Motor	Type			1-phase induction motor			
	Output		kW	0.015 (at 240V)			
Air filter				PP honeycomb fabric (long life type)			
Refrigerant pipe diameter	Gas(Flare)		mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)		mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter			mm(in.)	O.D.32 (1-1/4)			
Sound pressure level (Lo-Mid-Hi)	220V,240V	*2 *3	dB(A)	27-30-33			29-33-36
	230V	*2 *3	dB(A)	28-31-34			30-34-37

				PLFY-P50VLMD-E	PLFY-P63VLMD-E	PLFY-P80VLMD-E	PLFY-P100VLMD-E	PLFY-P125VLMD-E
Power source				1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz				
Cooling capacity		*1	kW	5.6	7.1	9.0	11.2	14.0
		*1	BTU/h	19,100	24,200	30,700	38,200	47,800
Heating capacity		*1	kW	6.3	8.0	10.0	12.5	16.0
		*1	BTU/h	21,500	27,300	34,100	42,700	54,600
Power consumption	Cooling		kW	0.082 / 0.086	0.101 / 0.105	0.147 / 0.156	0.157 / 0.186	0.28 / 0.28
	Heating		kW	0.075 / 0.080	0.094 / 0.099	0.140 / 0.150	0.150 / 0.180	0.27 / 0.27
Current	Cooling		A	0.41 / 0.43	0.49 / 0.51	0.72 / 0.74	0.75 / 0.88	1.35 / 1.35
	Heating		A	0.35 / 0.38	0.43 / 0.46	0.66 / 0.69	0.69 / 0.83	1.33 / 1.33
External finish (Munsell No.)	Unit			Galvanized steel plate				
	Panel			Pure white (6.4Y 8.9 / 0.4)				
Dimension H x W x D	Unit		mm (in.)	290 x 946 x 634 (11-7/16 x 37-1/4 x 25)		290 x 1446 x 634 (11-7/16 x 56-15/16 x 25)		290 x 1708 x 606 (11-7/16 x 67-1/4 x 23-7/8)
	Panel		mm (in.)	20 x 1250 x 710 (13/16 x 49-1/4 x 28)		20 x 1750 x 710 (13/16 x 68-15/16 x 28)		20 x 2010 x 710 (13/16 x 79-3/16 x 28)
Net weight	Unit		kg(lbs.)	27 (60)	28 (62)	44 (98)	47 (104)	56 (124)
	Panel		kg(lbs.)	7.5 (17)		12.5 (28)		13.0 (29)
Heat exchanger				Cross fin				
Fan	Type x Quantity			Turbo fan x 1		Turbo fan x 2		Sirocco fan x 4
	Airflow rate (P50~P100:Lo-Mid-Hi)	*2	m^3/min	9.0-11.0-12.5	11.0-13.0-15.5	15.5-18.5-22.0	17.5-21.0-25.0	24.0-27.0-30.0-33.0
			L/s	150-183-208	167-217-258	258-308-367	292-350-417	400-450-500-550
	(P125:Lo-Mid2-Mid1-Hi)		cfm	318-388-441	353-459-547	547-653-777	618-742-883	848-953-1,059-1,165
	External static pressure		Pa	0				
Motor	Type			1-phase induction motor				
	Output		kW	0.020 (at 240V)		0.020 (at 240V)	0.030 (at 240V)	0.078 x 2 (at 240V)
Air filter				PP honeycomb fabric (long life type)				Synthetic fiber unwoven cloth filter (long life)
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)			
	Liquid (Flare)		mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)			
Field drain pipe diameter			mm(in.)	O.D.32 (1-1/4)				
Sound pressure level (Lo-Mid-Hi)	220V,240V	*2 *3	dB(A)	31-34-37	32-37-39	33-36-39	36-39-42	40-42-44-46 (Lo-Mid2-Mid1-Hi)
	230V	*2 *3	dB(A)	32-35-38	33-38-40	34-37-40	37-41-43	

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-middle-high) or (low-middle2-middle1-high).

*3 It is measured in anechoic room.

INDOOR UNIT
Ceiling cassette type 1-way airflow
PMFY-P VBM-E

Compact and lightweight body perfect for limited ceiling space applications.

Compact size for smooth installation and maintenance

Unit body size has been standardised for all models at 812mm for easier installation. Body weight is only 14kg for the main unit and 3kg for the panel, making this unit one of the lightest in the industry.

Quiet operation

Newly developed airflow control technology reduces noise level to only 27dB (P20VBM) for industry-leading quiet performance.

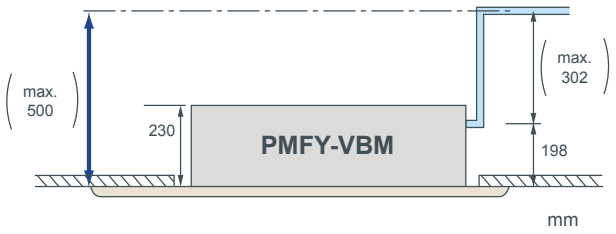
Sound pressure level table

	Capacity		P20	P25	P32	P40
Sound pressure level	Fan Speed	High	35	37		39
		Mid 1	33	36		37
		Mid 2	30	34		35
		Low	27	32		33

<220V,240V>

Drain pump

The drain can be positioned anywhere up to 500mm from the ceiling's surface.



▸Specifications

			PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.042	0.044		0.054
	Heating	kW	0.042	0.044		0.054
Current	Cooling	A	0.20	0.21		0.26
	Heating	A	0.20	0.21		0.26
External finish (Munsell No.)			White (0.98Y 8.99/0.63)			
Dimension H x W x D	Unit	mm(in.)	230 x 812 x 395 (9-1/16 x 32 x 15-9/16)			
	Panel	mm(in.)	30 x 1000 x 470 (1-3/16 x 39-3/8 x 18-9/16)			
Net weight	Unit	kg(lbs.)	14 (31)			
	Panel	kg(lbs.)	3 (7)			
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)			
Fan	Type		Line flow fan x 1			
	Airflow rate (Lo-Mid2-Mid1-Hi) *2	m^3/min	6.5-7.2-8.0-8.7	7.3-8.0-8.6-9.3		7.7-8.7-9.7-10.7
		L/s	108-120-133-145	122-133-143-155		128-145-162-178
		cfm	230-254-283-307	258-283-304-328		272-307-343-378
	External staticpressure	Pa	0			
Motor	Type		1-phase induction motor			
	Output	kW	0.028			
Air filter			PP Honeycomb fabric			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter		mm(in.)	O.D. 26 (1)			
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	27-30-33-35	32-34-36-37		33-35-37-39

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-middle2-middle1-high).

*3 It is measured in anechoic room.

INDOOR UNIT
Low Static Ducted Units

PEFY-P VMS1(L)-E

Static Pressure 5~50Pa | Height 200mm 7-28/32in. | Low Noise | Width 790mm 31-1/8in. | Width 990mm 39in. | Width 1,190mm 46-7/8in.

The ultra thin unit of 200mm offers increased flexibility, and is particularly suitable for places where low noise operation is desired.

Changeable static pressure

The unit is made suitable for a variety of applications with its four static pressure settings of 5, 15, 35, 50Pa.

Changeable airflow rate

Low, middle, and high fan speed settings deliver precise comfort.

Optional drain pump

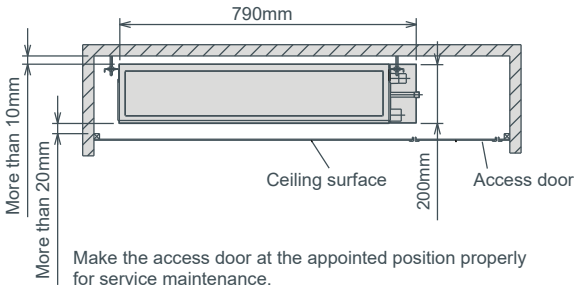
Drain pump is an optional part for the VMS1L, and a standard for VMS1.
*For places where low noise operation is especially required (i.e. Hotels), VMS1L (without drain pump) is recommended.

PP Honeycomb fabric

Washable PP Honeycomb fabric filter as standard.

Ultra low height unit with 200mm (7-28/32in.) high Ultra-narrow width of 790mm (P15-P32 models) [990mm for P40,50 models / 1190mm for P63 models]

Can be installed easily in tight spaces, such as ceiling cavities or drop-ceilings.



Make the access door at the appointed position properly for service maintenance.

Reduced noise thanks to the use of newly designed centrifugal fan and coil

Sound pressure level table (Standard static pressure) at 15Pa

dB(A)

			P15	P20	P25	P32	P40	P50	P63
Sound pressure Level	Capacity								
	Fan Speed	High	28	29	30	32	33	35	36
		Mid	24	25	26	27	30	32	33
		Low	22	23	24	24	28	30	30

▸Specifications

			PEFY-P15VMS1(L)-E	PEFY-P20VMS1(L)-E	PEFY-P25VMS1(L)-E	PEFY-P32VMS1(L)-E	PEFY-P40VMS1(L)-E	PEFY-P50VMS1(L)-E	PEFY-P63VMS1(L)-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz						
Cooling capacity	*1	kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption *3	Cooling	kW	0.05 [0.03]	0.05 [0.03]	0.06 [0.04]	0.07 [0.05]	0.07 [0.05]	0.09 [0.07]	0.09 [0.07]
	Heating	kW	0.03 [0.03]	0.03 [0.03]	0.04 [0.04]	0.05 [0.05]	0.05 [0.05]	0.07 [0.07]	0.07 [0.07]
Current *3	Cooling	A	0.42 [0.31]	0.47 [0.36]	0.50 [0.39]	0.50 [0.39]	0.56 [0.45]	0.67 [0.56]	0.72 [0.61]
	Heating	A	0.31 [0.31]	0.36 [0.36]	0.39 [0.39]	0.39 [0.39]	0.45 [0.45]	0.56 [0.56]	0.61 [0.61]
External finish			Galvanized						
Dimension		mm	200 x 790 x 700				200 x 990 x 700		200 x 1,190 x 700
H x W x D		In.	7-7/8 x 31-1/8 x 27-9/16				7-7/8 x 39 x 27-9/16		7-7/8 x 46-7/8 x 27-9/16
Net weight *3		kg(lbs.)	19(42) [18(40)]			20(45) [19(42)]	24(53) [23(51)]		28(62) [27(60)]
Heat exchanger			Cross fin (Aluminium fin and copper tube)						
Fan	Type x Quantity		Sirocco fan x 2				Sirocco fan x 3		Sirocco fan x 4
	Airflow rate (Lo-Mid-Hi)	m^3/min	5-6-7	5.5-6.5-8	5.5-7-9	6-8-10	8-9.5-11	9.5-11-13	12-14-16.5
		L/s	83-100-117	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275
		cfm	176-212-247	194-229-282	194-247-317	212-282-353	282-335-388	335-388-459	424-494-583
	External static press	Pa	5-15-35-50						
Motor	type		DC motor						
	output	kW	0.096						
Air filter			PP Honeycomb fabric (washable)						
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed						ø15.88 (ø5/8) Brazed
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed						ø9.52 (ø3/8) Brazed
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)						
Sound pressure level (Lo-Mid-Hi) (mesured in anechoic room)		dB<A>	22-24-28	23-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor : 27°CD.B./19°CW.B. (81°FD.B. / 66°FW.B.) Outdoor : 35°CD.B. (95°FD.B.)
Heating : Indoor : 20°CD.B. (68°FD.B.) Outdoor : 7°CD.B. / 6°CW.B. (45°FD.B. / 43°FW.B.)
Pipe length : 7.5m (24-9/16ft) Height difference : 0m (0ft)

*2 The external static pressure is set to 15 Pa at factory shipment.

*3 [ ] is in case of PEFY-P15-63VMS1L-E

INDOOR UNIT
Mid Static Ducted Units

PEFY-P VMA(L)-E

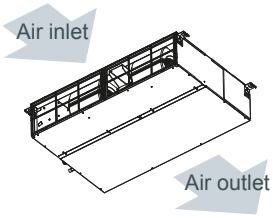
Middle Static Pressure 35~150Pa

Slim Body Height 250mm

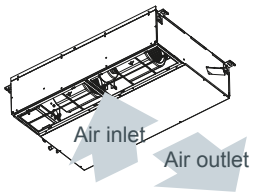
Precise control of indoor temperatures while operating with optimum energy usage, offering high-energy saving efficiency.

Air Inlet

(1) Rear inlet



(2) Bottom inlet



Compact Indoor Units

For all models, unit heights are unified to 250mm. Compared to the previous model, the height size is reduced, allowing installation in tight spaces, such as ceiling cavities or drop-ceilings.

Reduction in height size

PEFY-P VMA(L)		20	25	32	40	50	63	71	80	100	125	140
Height	mm	250										
Width	mm	700			900		1,100			1,400		1,600
Depth	mm	732										

Drain Pump Option

The line-up consists of two types, models with or without a built-in drain pump allowing more freedom in piping layout design.

PEFY-P VMA-E Drain pump built-in

PEFY-P VMAL-E No Drain pump

* Units with a "L" at the end of the model name are not equipped with a drain pump.

External static pressure

Five-stage external static pressure settings provide flexibility for duct extension, branching and air outlet configuration and are adjustable to meet different application conditions.
Setting ranges to a maximum of 150Pa.

External static pressure setting

Series	20	25	32	40	50	63	71	80	100	125	140
PEFY-P VMA(L)	35/50/70/100/150Pa										

Analogue input

Analogue input allows units to control the fan speed setting in conjunction with damper conditions.

IT terminal

IT terminals are available. For details, contact your local distributor.

▸Specifications

			PEFY-P20VMA(L)-E	PEFY-P25VMA(L)-E	PEFY-P32VMA(L)-E	PEFY-P40VMA(L)-E	PEFY-P50VMA(L)-E
Power source			1-phase 220-230-240V 50 / 60Hz				
Cooling capacity *1		kW	2.2	2.8	3.6	4.5	5.6
(Nominal) *1		BTU/h	7,500	9,600	12,300	15,400	19,100
Heating capacity *2		kW	2.5	3.2	4.0	5.0	6.3
(Nominal) *2		BTU/h	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling *3	kW	0.06 [0.04]	0.06 [0.04]	0.07 [0.05]	0.09 [0.07]	0.11 [0.09]
	Heating *3	kW	0.04	0.04	0.05	0.07	0.09
Current	Cooling *3	A	0.53 [0.42]	0.53 [0.42]	0.55 [0.44]	0.64 [0.53]	0.74 [0.63]
	Heating *3	A	0.42	0.42	0.44	0.53	0.63
External finish			Galvanized steel plate				
Dimension H x W x D		mm	250 x 700 x 732	250 x 700 x 732	250 x 700 x 732	250 x 900 x 732	250 x 900 x 732
		in.	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8
Net weight		kg(lbs)	23 (51) [22 (49)]	23 (51) [22 (49)]	23 (51) [22 (49)]	26 (58) [25 (56)]	26 (58) [25 (56)]
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x Quantity		Sirocco fan x 1				
	Airflow rate (Low-Mid-High)	m³/min	6.0 - 7.5 - 8.5	6.0 - 7.5 - 8.5	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0	12.0 - 14.5 - 17.0
		L/s	100 - 125 - 142	100 - 125 - 142	125 - 150 - 175	167 - 200 - 233	200 - 242 - 283
		cfm	212 - 265 - 300	212 - 265 - 300	265 - 318 - 371	353 - 424 - 494	424 - 512 - 600
	External static pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
Motor	Type		DC motor				
	Output	kW	0.085	0.085	0.085	0.085	0.085
Air filter			PP honeycomb fabric.				
Refrigerant pipe diameter	Liquid (R410A) (R22,R407C)	mm(in.)	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 9.52 (3/8) Brazed
	Gas (R410A) (R22,R407C)	mm(in.)	12.7 (1/2) Brazed 12.7 (1/2) Brazed	12.7 (1/2) Brazed 12.7 (1/2) Brazed	12.7 (1/2) Brazed 12.7 (1/2) Brazed	12.7 (1/2) Brazed 12.7 (1/2) Brazed	12.7 (1/2) Brazed 15.88 (5/8) Brazed
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	O.D.32(1-1/4)	O.D.32(1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Sound pressure level (measured in anechoic room)							
(Low-Mid-High) *3 *5		dB(A)	26-28-29	26-28-29	28-30-34	28-30-34	28-32-35
*3 *6		dB(A)	23-25-26	23-25-26	23-26-29	23-27-30	25-29-32

			PEFY-P63VMA(L)-E	PEFY-P71VMA(L)-E	PEFY-P80VMA(L)-E	PEFY-P100VMA(L)-E	PEFY-P125VMA(L)-E	PEFY-P140VMA(L)-E
Power source			1-phase 220-230-240V 50 / 60Hz					
Cooling capacity *1		kW	7.1	8.0	9.0	11.2	14.0	16.0
(Nominal) *1		BTU/h	24,200	27,300	30,700	38,200	47,800	54,600
Heating capacity *2		kW	8.0	9.0	10.0	12.5	16.0	18.0
(Nominal) *2		BTU/h	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	Cooling *3	kW	0.12 [0.10]	0.14 [0.12]	0.14 [0.12]	0.24 [0.22]	0.34 [0.32]	0.36 [0.34]
	Heating *3	kW	0.10	0.12	0.12	0.22	0.32	0.34
Current	Cooling *3	A	1.01 [0.90]	1.15 [1.04]	1.15 [1.04]	1.47 [1.36]	2.05 [1.94]	2.21 [2.10]
	Heating *3	A	0.90	1.04	1.04	1.36	1.94	2.10
External finish			Galvanized steel plate					
Dimension H x W x D		mm	250 x 1,100 x 732	250 x 1,100 x 732	250 x 1,100 x 732	250 x 1,400 x 732	250 x 1,400 x 732	250 x 1,600 x 732
		in.	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 63 x 28-7/8
Net weight		kg(lbs)	32 (71) [31(69)]	32 (71) [31 (69)]	32 (71) [31 (69)]	42 (93) [41 (91)]	42 (93) [41 (91)]	46 (102) [45 (10)]
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x Quantity		Sirocco fan x 2					
	Airflow rate (Low-Mid-High)	m³/min	13.5 - 16.0 - 19.0	14.5 - 18.0 - 21.0	14.5 - 18.0 - 21.0	23.0 - 28.0 - 33.0	28.0 - 34.0 - 40.0	29.5 - 35.5 - 42.0
		L/s	225 - 267 - 317	242 - 300 - 350	242 - 300 - 350	383 - 467 - 550	467 - 567 - 667	492 - 592 - 700
		cfm	477 - 565 - 671	512 - 636 - 742	512 - 636 - 742	812 - 989 - 1,165	989 - 1,201 - 1,412	1,042 - 1,254 - 1,483
	External static pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
Motor	Type		DC motor					
	Output	kW	0.121	0.121	0.121	0.244	0.244	0.244
Air filter			PP honeycomb fabric.					
Refrigerant pipe diameter	Liquid (R410A) (R22,R407C)	mm(in.)	9.52 (3/8) Brazed 9.52 (3/8) Brazed	9.52 (3/8) Brazed 9.52 (3/8) Brazed	9.52 (3/8) Brazed 9.52 (3/8) Brazed	9.52 (3/8) Brazed 9.52 (3/8) Brazed	9.52 (3/8) Brazed 9.52 (3/8) Brazed	9.52 (3/8) Brazed 9.52 (3/8) Brazed
	Gas (R410A) (R22,R407C)	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 19.05 (3/4) Brazed	15.88 (5/8) Brazed 19.05 (3/4) Brazed	15.88 (5/8) Brazed 19.05 (3/4) Brazed
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Sound pressure level (measured in anechoic room)								
(Low-Mid-High) *3 *5		dB(A)	29-32-36	30-34-38	30-34-38	32-37-41	35-40-44	36-41-45
*3 *6		dB(A)	25-29-33	26-29-34	26-29-34	28-33-37	32-36-40	33-37-42

Notes:

* [ ] is in case of PEFY-P VMAL-E

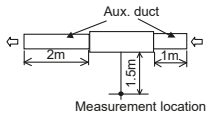
*1 Nominal cooling conditions
Indoor: 27°CDB/19°CWB(81°FDB/66°FWB), Outdoor: 35°CDB(95°FDB)
Pipe length: 7.5m(24-9/16ft.), Level difference: 0m(0ft.)

*2 Nominal heating conditions
Indoor: 20°CDB(68°FDB), Outdoor: 7°CDB/6°CWB(45°FDB/43°FWB)
Pipe length: 7.5m(24-9/16ft.), Level difference: 0m(0ft.)

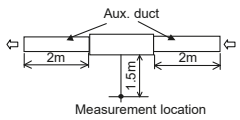
*3 The values are measured at the rated external static pressure.

*4 The rated external static pressure is shown without < >.The factory setting is the rated value.

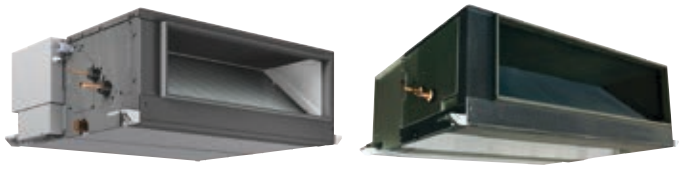
*5 Measured in anechoic room with a 1m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



*6 Measured in anechoic room with a 2m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



INDOOR UNIT
Ceiling concealed type
PEFY-P VMH-E2
PEFY-P VMH(S)-E



High Static Pressure

Increased design flexibility from sufficient external static pressure allows authentic duct air- conditioning with an elegant interior layout.

High static pressure of 200 Pa or higher

The additional external static pressure capacity provides flexibility for duct extension, branching and air outlet configuration.

PEFY-P VMH-E2		P40	P50	P63	P71	P80	P100	P125	P140
External static pressure (Pa)	220V	50/100/200							
	230/240V	100/150/200							

PEFY-P VMH-E		P200	P250
External static pressure (Pa)	380V	110/220	
	400/415V	130/260	

PEFY-P VMHS-E	P200	P250
External static pressure (Pa)	<50> – <100> – 150 – <200> – <250>*	

*The rated external static pressure is shown without < >.
The factory setting is the rated value.

Reduced noise thanks to the use of newly designed centrifugal fan

Sound pressure level table (Standard static pressure 220V)

dB(A)

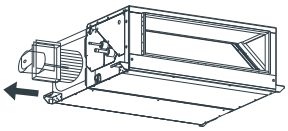
Sound pressure Level	Capacity		P40	P50	P63	P71	P80	P100	P125	P140
	Fan Speed	High	34	34	38	39	41	42	42	42
		Low	27	27	32	32	35	34	34	34

IT terminal

IT terminal is available. For details, contact your local distributor.

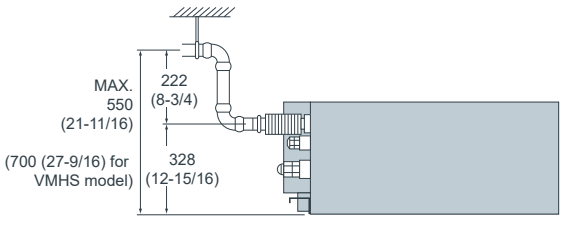
One-side maintenance

All maintenance to the unit, including fan inspection and fan motor removal, can be conducted from the inspection opening on one side.
(VMH model only)



Drain pump (option) ensures up to 550mm (21-11/16in.) for VMH model / 700mm (27-9/16in.) for VMHS model of lift

The introduction of an upper drain pump allows the drain connection to be raised as high as 550mm(21-11/16in.) for VMH model/700mm (27-9/16in.) for VMHS model, allowing more freedom in piping layout design and reducing horizontal piping requirements.



mm (in.)

▸Specifications

				PEFY-P40VMH-E2	PEFY-P50VMH-E2	PEFY-P63VMH-E2	PEFY-P71VMH-E2	PEFY-P80VMH-E2	PEFY-P100VMH-E2	PEFY-P125VMH-E2	PEFY-P140VMH-E2
Power source				1-phase 220-230-240V 50Hz /60Hz							
Cooling capacity	*1		kW	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
	*1		BTU/h	15,400	19,100	24,200	27,300	30,700	38,200	47,800	54,600
Heating capacity	*3		kW	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
	*3		BTU/h	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	*2	Cooling	kW	0.055	0.055	0.090	0.075	0.090	0.160	0.160	0.190
		Heating	kW	0.055	0.055	0.090	0.075	0.090	0.160	0.160	0.190
Current	*2	Cooling	A	0.39	0.39	0.62	0.52	0.61	1.01	1.01	1.19
		Heating	A	0.39	0.39	0.62	0.52	0.61	1.01	1.01	1.19
External finish				Galvanized steel plate							
Dimension H x W x D			mm	380 x 745 x 900	380 x 745 x 900	380 x 745 x 900	380 x 1,030 x 900	380 x 1,030 x 900	380 x 1,195 x 900	380 x 1,195 x 900	380 x 1,195 x 900
Net weight			kg(lbs.)	35 (78)	35 (78)	35 (78)	45 (100)	45 (100)	51 (113)	51 (113)	53 (117)
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)							
Fan	Type x Quantity			Sirocco fan x 1			Sirocco fan x 2				
	Airflow rate (Lo-Hi)		m^3/min	10.0 - 14.0	10.0 - 14.0	13.5 - 19.0	15.5 - 22.0	18.0 - 25.0	26.5 - 38.0	26.5 - 38.0	28.0 - 40.0
			L/s	167 - 233	167 - 233	225 - 317	258 - 367	300 - 417	442 - 633	442 - 633	467 - 667
			cfm	353 - 494	353 - 494	477 - 671	547 - 777	636 - 883	936 - 1342	936 - 1342	989 - 1412
	*4 External static pressure		Pa	50 - 100 - 150 - 200							
Motor	Type			DC Motor							
	Output		kW	0.121	0.121	0.121	0.244	0.244	0.375	0.375	0.375
Air filter (option)				Synthetic fiber unwoven cloth filter (long life filter and filter box are recommended.)							
Refrigerant pipe diameter	Gas		mm(in.)	12.7 (1/2)Brazed	12.7 (1/2)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
	Liquid		mm(in.)	6.35 (1/4)Brazed	6.35 (1/4)Brazed	9.52 (3/8)Brazed	9.52 (3/8)Brazed	9.52 (3/8)Brazed	9.52 (3/8)Brazed	9.52 (3/8)Brazed	9.52 (3/8)Brazed
Field drain pipe diameter			mm(in.)	O.D. 32 (1-1/4)							
Sound pressure level (Lo-Hi) *2			dB(A)	20-23-27	20-23-27	24-27-32	24-26-30	25-27-30	27-31-34	27-31-34	27-32-36

				PEFY-P200VMH-E	PEFY-P250VMH-E	PEFY-P200VMHS-E	PEFY-P250VMHS-E
Power source				3-phase 380-415V 50Hz / 3N ~ 380-415V 60Hz		1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz	
Cooling capacity	*1		kW	22.4	28.0	22.4	28.0
	*1		BTU/h	76,400	95,500	76,400	95,500
Heating capacity	*3		kW	25.0	31.5	25.0	31.5
	*3		BTU/h	85,300	107,500	85,300	107,500
Power consumption	*2	Cooling	kW	0.99 / 1.14	1.23 / 1.41	0.63	0.82
		Heating	kW	0.99 / 1.14	1.23 / 1.41	0.63	0.82
Current	*2	Cooling 380-415V	A	1.62 / 1.86	2.00 / 2.30	—	—
		Cooling 220-230-240V	A	—	—	3.47-3.32-3.18	4.72-4.43-4.14
		Heating 380-415V	A	1.62 / 1.86	2.00 / 2.30	—	—
		Heating 220-230-240V	A	—	—	3.47-3.32-3.18	4.72-4.43-4.14
External finish				Galvanized		Galvanized steel plate	
Dimension H x W x D			mm	470 x 1,250 x 1,120		470 x 1,250 x 1,120	
			in.	18-9/16 x 49-1/4 x 44-1/8		18-9/16 x 49-1/4 x 44-1/8	
Net weight			kg(lbs.)	100 (221)		97 (214)	100 (221)
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)		Cross fin (Aluminum plate fin and copper tube)	
Fan	Type x Quantity			Sirocco fan x 2		Sirocco fan x 2	
	Airflow rate		m^3/min	58.0	72.0	—	—
			L/s	967	1200	—	—
			cfm	2048	2543	—	—
		Lo-Mid-Hi	m^3/min	—	—	50.0-61.0-72.0	58.0-71.0-84.0
			L/s	—	—	833-1017-1200	967-1183-1400
			cfm	—	—	1766-2154-2542	2048-2507-2966
	*4 External static pressure	380V	Pa	<110>-220		—	
		400,415V	Pa	<130>-260		—	
			Pa	—		<50>-<100>-150-<200>-<250>	
			mmH_2O	—		<5.1>-<10.2>-15.3-<20.4>-<25.5>	
Motor	Type			3-phase induction motor		DC motor	
	Output		kW	0.76 *5	1.08 *5	0.87	0.87
Air filter(option)				Synthethic fiber unwoven cloth filter (long life)		Synthethic fiber unwoven cloth filter (long life filter and filter box are recommended.)	
Refrigerant pipe diameter	Gas (Brazed)		mm(in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)	ø19.05 (ø3/4)	ø22.2 (ø7/8)
	Liquid (Brazed)		mm(in.)	ø9.52 (ø3/8)		ø9.52 (ø3/8)	
Field drain pipe diameter			mm(in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Sound pressure level	*2	380V	dB(A)	42 (110Pa) / 45 (220Pa)	50 (110Pa) / 52 (220Pa)	—	—
		400,415V	dB(A)	44 (130Pa) / 47 (260Pa)	52 (130Pa) / 54 (260Pa)	—	—
		Lo-Mid-Hi	dB(A)	—	—	36-39-43	39-42-46

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 The values 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: 0 m (0 ft.)

*4 The factory setting of external static pressure is shown without < >.
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

INDOOR UNIT
Fresh Air Intake Type

PEFY-P VMH-E-F

Fresh Air Intake

Fresh Air can be taken in with temperature control.
Ideal for offices, stores and restaurants.

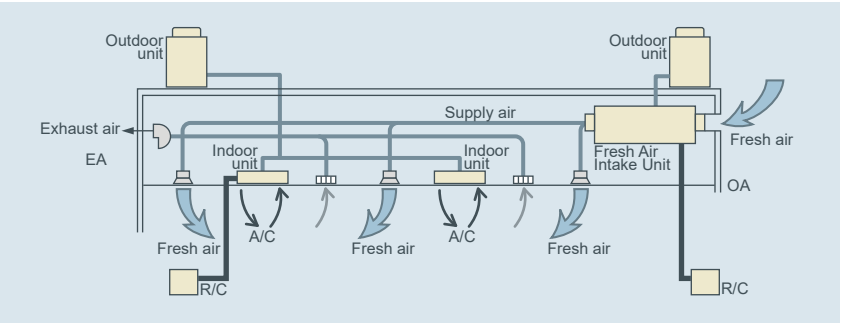
The Fresh Air intake indoor unit can be installed anywhere.

The Fresh Air intake indoor unit can take fresh outdoor air into any building in any place.

Office, Lobby, Workshop, Rest room, Nursing home, Cafeterias, Restaurant Kitchen

*** Limits of capacity connectable to outdoor unit**
Max. 110% of outdoor unit capacity, excepting heating at outdoor temperature of less than -5°C(23°F) (100%).

Example



< Note>
Fan remains in operation during Thermo-OFF. Using this model with other types of indoor units is recommended to prevent cold drafts caused by intaken fresh air.

< Note>
Please contact your local sales engineer for specific installation and application information relating to this product.

▸Specifications

				PEFY-P80VMH-E-F	PEFY-P140VMH-E-F
Power source				1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz	
Cooling capacity		*1	kW	9.0	16.0
		*1	BTU/h	30,700	54,600
Heating capacity		*1	kW	8.5	15.1
		*1	BTU/h	29,000	51,500
Power consumption	Cooling		kW	0.16 / 0.21	0.29 / 0.33
	Heating		kW	0.16 / 0.21	0.29 / 0.33
Current	Cooling		A	0.67 / 0.91	1.24 / 1.48
	Heating		A	0.67 / 0.91	1.24 / 1.48
External finish				Galvanized	
Dimension H x W x D			mm(in.)	380 x 1000 x 900 (15 x 39-3/8 x 35-7/16)	380 x 1200 x 900 (15 x 47-1/4 x 35-7/16)
Net weight			kg(lbs.)	50 (111)	70 (155)
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)	
Fan	Type x Quautity			Sirocco fan x 1	Sirocco fan x 2
	Airflow rate		m^3/min	9.0	18.0
			L/s	150	300
			cfm	318	636
	External static pressure (Lo-Mid-Hi)	208V	Pa	35 - 85 - 170	35 - 85 - 170
		220V	Pa	40 - 115 - 190	50 - 115 - 190
		230V	Pa	50 - 130 - 210	60 - 130 - 220
		240V	Pa	80 - 170 - 220	100 - 170 - 240
Motor	Type			1-phase induction motor	
	Output		kW	0.09 (at 220V)	0.14 (at 220V)
Air filter (option)				Synthetic fiber unwoven cloth filter (long life)	
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø15.88 (ø5/8)	
	Liquid (Flare)		mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter			mm(in.)	O.D.32 (1-1/4)	
Sound pressure level (Lo-Mid-Hi) *2	208, 220V		dB(A)	27 - 38 - 43	28 - 38 - 43
	230, 240V		dB(A)	33 - 43 - 45	34 - 43 - 45

				PEFY-P200VMH-E-F	PEFY-P250 VMH-E-F
Power source				3-phase 380-415V 50Hz / 3N~ 380-415V 60Hz	
Cooling capacity			kW	22.4	28.0
			BTU/h	76,400	95,500
Heating capacity			kW	21.2	26.5
			BTU/h	72,300	90,400
Power consumption	Cooling		kW	0.34 / 0.42	0.39 / 0.50
	Heating		kW	0.34 / 0.42	0.39 / 0.50
Current	Cooling		A	0.58 / 0.74	0.68 / 0.86
	Heating		A	0.58 / 0.74	0.68 / 0.86
External finish				Galvanized	
Dimension H x W x D			mm(in.)	470 x 1250 x 1120 (18-9/16 x 49-1/4 x 44-1/8)	
Net weight			kg(lbs.)	100 (221)	
Heat exchanger				Cross fin (Aluminum plate fin and copper tube)	
Fan	Type x Quautity			Sirocco fan x 2	
	Airflow rate		m^3/min	28	35
			L/s	467	583
			cfm	989	1236
	External static pressure	380V	Pa	140 / 200	110 / 190
		400V	Pa	150 / 210	120 / 200
		415V	Pa	160 / 220	130 / 210
Motor	Type			3-phase induction motor	
	Output		kW	0.20	0.23
Air filter (option)				Synthetic fiber unmoven cloth filter (long life type)	
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)
	Liquid (Flare)		mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter			mm(in.)	O.D.32 (1-1/4)	
Sound pressure level *2	380V		dB(A)	39 / 42	40 / 44
	400V		dB(A)	40 / 43	40 / 45
	415V		dB(A)	40 / 44	41 / 46

Notes:

1. The cooling and heating capacites are the maximum capacites that were obitained by operating in the above air conditions and with a refrigerant pipe of about 7.5m.
2. The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical infomation.
3. The operating noise is the data that was obitained by measuring it 1.5m from the the bottom of the unit in an anechoic room. (Noise meter A-scale value)
4. The figure of Electrical characteristic indicates at 240V 50Hz/230V60Hz (PEFY-P80, 140VHM-E-F type), at 220Pa setting at 415V (PEFY-P200, 250VMH-E-F type).
5. When the 100% fresh air indoor units are connected, the maximum connectable indoor units to 1 outdoor unit are as follows

Heat pump models	Cooling only
110%(100% in case of heating below-5°C(23°F))	110%

6. Operational temp range is (Cooling : from 21°C(70°F)DB/15.5°C(60°F)WB to 43°C(109°F)DB/35°C(95°F)WB
   Heating : from -10°C(14°F)DB to 20°C(68°F)DB)
   * Thermo off(Fan) operation automatically starts either when temperature is lower than 21°C(70°F)DB in cooling mode or when the temperature exceeds 20°C(68°F)DB in heating mode.
7. As the room temp in sensed by the thermo in the remote controller or the one in the room, be sure to use either remote controller or room thermo.
8. Autochangeover function or Dry mode is NOT available. Fan mode operation during the thermo off in Cooling/Heating mode.
9. In any case, the air flow rate should be kept lower than 110% of the above chart. Please see "Fan curves" for the details.
10. When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.
11. Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation.
    Please be careful when positioning indoor unit air outlet grilles, ie take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
12. Air filter must be installed in the air intake side. The filter should be attached where easy maintenance in possible in case of usage of fild supply filters.
13. Long life cannot be used with Hi-efficiency filter together (PEFY-P80 · 140VMH-E-F type).

INDOOR UNIT
Fresh Air Intake Type

PEFY-P VMHS-E-F

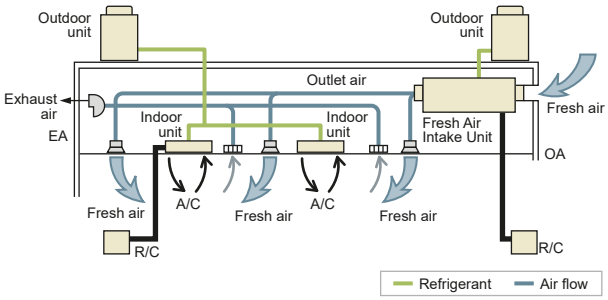
Fresh Air Intake

Fresh Air can be taken in with temperature control.
Ideal for offices, stores and restaurants.

Enables Intake of Outside Air

Fresh air can be taken in with temperature control. Fresh air intake is available for each air-conditioning zone.

*Fresh air intake type indoor unit is designed to supply pretreated outside air into the room. Do not use to handle internal thermal load.



Flexible Air-Flow Setting

NEW

Four levels of external static pressure levels to choose from compared to the three levels on the existing models

Model	P125	P200	P250
External static pressure (Pa)	<100>-<150>-200-<250>		

*The factory setting of external static pressure is shown without chevrons "< >".

Two types of air-flow modes are available, each of which has three air-flow rates to choose from.

Mode	Normal-airflow rate	High-airflow rate
Air-flow rate	Low-Medium-High	Low-Medium-High

*Air-flow rates are accessible from the remote controller.

Controllable Outlet Air Temperature

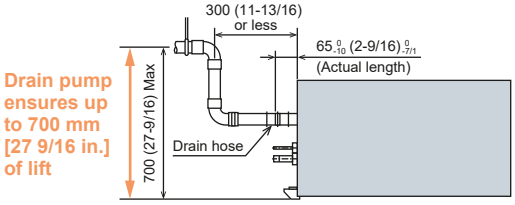
NEW

Pre-treating the intake air before being supplied to the room contributes to the stability of room temperature, ensuring optimized comfort of the occupants.

*Outlet air temperature may fluctuate, depending on the outside air temperature and the operating status of indoor and outdoor units.

Drain Pump (Optional)

Greater design flexibility made possible by the increased head height (Max. 700 mm)*



*Comparison with drain pump PAC-KE04DM-F

Equipped with New Fan Motor

NEW

Fan motor has been changed to higher efficiency DC motor. Power source has been changed from three-phase power supply to single-phase power supply, which allows for easier installation.

*Comparison with PEFY-P140, 200, 250VMH-E-F

▸Specifications

			PEFY-P125VMHS-E-F		PEFY-P200VMHS-E-F		PEFY-P250VMHS-E-F *6	
Power source			1-phase 220-230-240 V 50/60 Hz					
Cooling Capacity *1		kW	14.0		22.4		28.0	
		BTU/h	47,800		76,400		98,500	
Heating Capacity*2		kW	8.9		13.9		17.4	
		BTU/h	30,400		47,400		59,400	
Power Consumption *3	Cooling	kW	0.220		0.260		0.350	
	Heating	kW	0.230		0.270		0.360	
Current	Cooling	A	1.43		1.66		2.16	
	Heating	A	1.52		1.85		2.38	
External finish			Galvanised					
Dimensions (WxDxH)		[mm]	380 x 1195 x 900		470 x 1250 x 1120		470 x 1250 x 1120	
Net weight		[kg] (lbs.)	49 (109)		78 (172)		81 (179)	
Heat exchanger			Cross fin (Aluminium fin and copper tube)					
Fan *4,5	Type x Quantity		Sirocco fan x 1					
			Nominal airflow rate	High airlfow rate	Nominal airflow rate	High airlfow rate	Nominal airflow rate	High airlfow rate
	Airflow rate (Lo-Hi)	m^3/min	14.0 - 15.5 - 18.0	15.5 - 18.0 - 20.0	22.5 - 25.0 - 28.0	25.0 - 28.0 - 32.0	28.0 - 31.0 - 35.0	31.0 - 35.0 - 40.0
		L/s	167 - 200 -233	258 - 300 - 333	375 - 417 - 467	417 - 467 - 533	467 - 517 - 583	517 - 583 - 667
		cfm	353 - 424 -494	547 - 636 - 706	794 - 883 - 989	883 - 989 - 1130	989 - 1095 - 1236	1095 - 1236 - 1412
	External static pressure	Pa	50 - 100 - 150 - 200					
Motor	Type		DC Motor					
	Output	kW	0.244		0.375		0.375	
Air filter			Option: Long life filter an filter box recommended					
Refrigerant pipe diameter	Gas (flare)	mm	15.88 (5/8) Brazed		15.88 (5/8) Brazed		22.22 (7/8) Brazed	
	Liquid (flare)	mm	9.52 (3/8) Brazed		9.52 (3/8) Brazed		9.52 (3/8) Brazed	
Field drain pipe diameter			O.D. 32 (1-1/4)					
Sound pressure level *2 (Lo-Mid-Hi-Shi)		dBA	34 - 37 - 41	36-40-42	35-38-41	36-39-42	38-40-44	38-41-45

Notes:

*1 Cooling capacity indicates the maximum value at operation under the following condition. Cooling: Indoor 33°CDB/28°CWB, Outdoor 33°CDB. The set temperature of the remote controller is 18°C.

*2 Heating capacity indicates the maximum value at operation under the following condition. Heating: Indoor 0°CDB/-2.9°CWB, Outdoor 0°CDB/-2.9°CWB. The set temperature of the remote controller is 25°C.

*3 The value are measured at the factory setting of airflow mode and external static pressure.

*4 The factory setting of airflow mode and external static pressure mode is shown without < >. Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

*5 If the airflow rate is over the usable range, dew drop can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface can be caused.

*6 Regarding P250VMHS-E-F, the middle notch air flow rate is different from the spec value when the external static pressure setting is set to 100Pa. See "Fan characterics curves" in DATA BOOK for the details.

● The combination of fresh air intake type indoor units with other types of indoor units to handle internal thermal load which may cause the conflict of operation mode. It is not recommended when fresh air intake type indoor unit is connected to the Y or WY series.

● Depending on the air conditioning load, outside temperature, and due to the activation of protection functions, the desired preset temperature may not always be achieved and the discharge temperature may swing. Note that untreated outside air may be delivered directly into the room upon the activation of protection functions.

● Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.

● The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below -5°C).

● When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake type indoor units needs to be 30% or less of the connected outdoor unit capacity.

● The AUTO mode on the local remote controller is available only when fresh air intake type indoor unit is connected to the R2 or WR2 series of outdoor unit.

● The system changeover function is available only when all the connected indoor units are fresh air intake type indoor units.

INDOOR UNIT
Under Ceiling Unit

PCFY-P VKM-E

Designed for ultra-quiet operation and easy maintenance, providing exceptional comfort.

Extra slim, extra stylish

Sleek and slim with stylishly curved lines, the PCFY series blends right into any interior. It also features a single air outlet which allows the auto vane to act as a shutter when the unit is turned off.

Auto vane distributes air evenly

The auto vane swings up and down automatically to distribute air more evenly to every corner of the room.

Long life filter as standard

Long life filter is equipped as standard enabling up to 2,500 hours of operation (office use) without maintenance.

Keeps airflow at optimum level according to ceiling height

The most suitable airflow can be selected for ceilings up to 4.2m high, enhancing air-conditioning efficiency and comfort. (P100/P125)

	Standard	High ceiling
Ceiling height	3.0(9-13/16)	4.2(13-3/4)

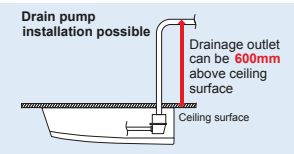
m (ft)

Greatly simplified installation

The direct suspension system eliminates the task of removing the attachment fixture from the main unit, greatly shortening installation time.

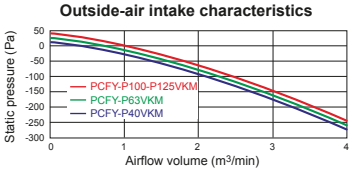
Drain pump option available with all models

The pumping height of the optional drain pump has been increased from 400 mm to 600 mm, expanding flexibility in choosing unit location during installation work.



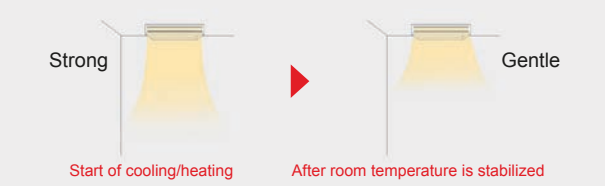
Outside-air intake

Units are equipped with a knock-out hole that enables the induction of fresh outside-air.



Equipped with automatic air-speed adjustment

In addition to the conventional 4-speed setting, units are now equipped with an automatic air-speed adjustment mode. This setting automatically adjusts the air-speed to conditions that match the room environment. At the start of heating/cooling operation, the airflow is set to high-speed to quickly heat/cool the room. When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable heating/cooling operation and comfort.



▸Specifications

			PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity	*1	kW	4.5	7.1	11.2	14.0
	*1	BTU/h	15,400	24,200	38,200	47,800
Heating capacity	*1	kW	5.0	8.0	12.5	16.0
	*1	BTU/h	17,100	27,300	42,700	54,600
Power consumption	Cooling	kW	0.04	0.05	0.09	0.11
	Heating	kW	0.04	0.05	0.09	0.11
Current	Cooling	A	0.28	0.33	0.65	0.76
	Heating	A	0.28	0.33	0.65	0.76
External finish(Munsell No.)			6.4Y 8.9/ 0.4			
Dimension H x W x D		mm	230 x 960 x 680	230 x 1,280 x 680	230 x 1,600 x 680	
		in.	9-1/16 x 37-13/16 x 26-3/4	9-1/16 x 50-3/8 x 26-3/4	9-1/16 x 63 x 26-3/4	
Net weight		kg(lbs.)	24(53)	32 (71)	36 (79)	38 (84)
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x Quantity		Sirocco fan x 2	Sirocco fan x 3	Sirocco fan x 4	
	Airflow rate *2 (Lo-Mid2-Mid1-Hi)	m^3/min	10-11-12-13	14-15-16-18	21-24-26-28	21-24-27-31
		L/s	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517
		cfm	353-388-424-459	494-530-565-636	742-847-918-989	742-847-953-1,095
	External static pressure	Pa	0			
Motor	Type		DC motor			
	Output	kW	0.090	0.095	0.160	
Air filter			PP Honeycomb (long life)			
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)		
Field drain pipe diameter		mm(in.)	O.D. 26 (1)			
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	29-32-34-36	31-33-35-37	36-38-41-43	36-39-42-44

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(80.6°F)DB/19°C(66.2°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB,Outdoor 7°C(44.6°F)DB/6°C(42.8°F)WB

*2 Airflw rate/Sound pressure level are shown in (low-middle 2-middle 1-high).

*3 It is measured in anechoic room.

INDOOR UNIT
Wall Mounted Type

PKFY-P VBM-E
PKFY-P VHM-E
PKFY-P VKM-E


PKFY-P VBM


PKFY-P VHM


PKFY-P VKM

Elegant design and compact dimensions ideal for offices, stores and residential uses.

Capacity range

Capacity	P15	P20	P25	P32	P40	P50	P63	P100
VBM	●	●	●					
VHM				●	●	●		
VKM							●	●

4-way piping provides more flexibility in selecting installation sites

All piping including drainage can be connected from the rear, right, base, and left of the unit, providing much greater flexibility in piping and selecting installation site.

Flat panel & pure white finish

All models have changed from the grill design, adopting the flat panel layout.
Pursuing a design that harmonises with virtually any interior, the unit color has been changed from white to pure white.

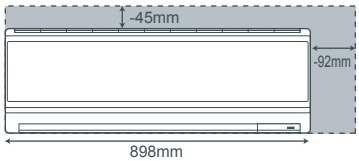
Compatible with Blue Diamond Condensate Pumps

BLUEDIAMOND
CONDENSATE REMOVAL PUMPS

PKFY-P VHM features

Compact size of 898mm

Width size reduced to match small size buildings and offices.



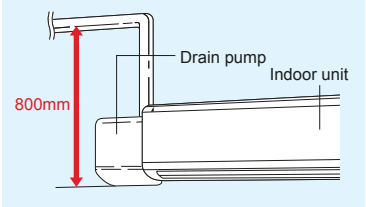
Comparison with PKFY-P VGM-E

Light unit

Approx. 3kg reduced from conventional model (P32-50). Easier installation.

Drain pump (option)

The optional drain pump allows the drain connection to be raised as high as 800mm, allowing more freedom in piping layout design.



▸Specifications

				PKFY-P15VBM-E	PKFY-P20VBM-E	PKFY-P25VBM-E	PKFY-P32VHM-E	PKFY-P40VHM-E	PKFY-P50VHM-E
Power source				1-phase 220-240V 50Hz / 1-phase 220V 60Hz					
Cooling capacity		*1	kW	1.7	2.2	2.8	3.6	4.5	5.6
		*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100
Heating capacity		*1	kW	1.9	2.5	3.2	4.0	5.0	6.3
		*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling	*4	kW	0.04			0.04		
	Heating		kW	0.04			0.03		
Current	Cooling	*4	A	0.20			0.40		
	Heating		A	0.20			0.30		
External finish(Munsell No.)				Plastic (1.0Y 9.2/0.2)			Plastic (1.0Y 9.2/0.2)		
Dimension H x W x D			mm(in.)	295 x 815 x 225 (11-5/8 x 32-1/8 x 8-7/8)			295 x 898 x 249(11-5/8 x 35-3/8 x 9-13/16)		
Net weight			kg(lbs.)	10 (23)			13(29)		
Heat exchanger				Cross fin (Aluminum fin and copper tube)					
Fan	Type x Quantity			Line flow fan x 1					
	Airflow rate (Lo-Mid2-Mid1-Hi)	*2	m^3/min	4.9-5.0-5.2-5.3	4.9-5.2-5.6-5.9		9-10-11	9-10.5-11.5	9-10.5-12
			L/s	82-83-87-88	82-87-93-98		150-167-183	150-175-192	150-175-200
			cfm	173-177-184-187	173-184-198-208		318-353-388	318-371-406	318-371-424
	External static pressure		Pa	0					
Motor	Type			1-phase induction motor			DC motor		
	Output		kW	0.017			0.030		
Air filter				PP Honeycomb					
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø12.7 (ø1/2)					ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)
	Liquid (Flare)		mm(in.)	ø6.35 (ø1/4)					ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)
Field drain pipe diameter			mm(in.)	I.D.16 (5/8)					
Sound pressure level (Lo-Mid2-Mid1-Hi)		*2 *3	dB(A)	29-31-32-33	29-31-34-36		34-37-41	34-38-41	34-39-43

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-middle2-middle1-high).

*3 It is measured in anechoic room.

*4 Electrical characteristic of cooling are included optional drain-pump.

				PKFY-P63VKM-E	PKFY-P100VKM-E
Power source				1-phase 220-230-240V 50Hz / 1-phase 220V 60Hz	
Cooling capacity		*1	kW	7.1	11.2
		*1	BTU/h	24,200	38,200
Heating capacity		*1	kW	8.0	12.5
		*1	BTU/h	27,300	42,600
Power consumption	Cooling	*4	kW	0.05	0.08
	Heating		kW	0.04	0.07
Current	Cooling	*4	A	0.37	0.58
	Heating		A	0.30	0.51
External finish(Munsell No.)				Plastic (1.0Y 9.2/0.2)	
Dimension H x W x D			mm(in.)	365 x 1,170 x 295 (14-3/8 x 46-1/16 x 11-5/8)	
Net weight			kg(lbs.)	21 (46)	
Heat exchanger				Cross fin (Aluminum fin and copper tube)	
Fan	Type x Quantity			Line flow fan x 1	
	Airflow rate (Lo-Hi)	*2	m^3/min	16-20	20-26
			L/s	267-333	333-433
			cfm	565-706	706-918
	External static pressure		Pa	0	
Motor	Type			DC motor	
	Output		kW	0.056	
Air filter				PP Honeycomb	
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)
	Liquid (Flare)		mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter			mm(in.)	I.D. 16(5/8)	
Sound pressure level (Lo-Hi)		*2 *3	dB(A)	39-45	41-49

Notes:

*1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor : 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-high).

*3 It is measured in anechoic room.

*4 Electrical characteristic of cooling are included optional drain-pump.

INDOOR UNIT
Wall Mounted Type

MSZ-EF Designer Series
and PAC-LV11M-J External LEV Kit*

An exceptional combination of energy efficiency and award winning design, the Designer Series will appeal to those with even the most discerning style.

Three Colours Available

The Designer Series has a slimline profile, and a flat panel facade. Available in glossy white, matte silver or rich black diamond, the Designer Series will suit any application. The Designer Series is an unobtrusive, efficient, and safe heating source which allows you to make the most of valuable floor space.

Superior Filtration

Equipped with a nano-platinum filter which is both antibacterial and deodorising, the filter ensures increased dust catchment and superior air cleaning.

▸Specifications

			MSZ-EF25VE2W/B/S	MSZ-EF35VE2W/B/S	MSZ-EF42VE2W/B/S	MSZ-EF50VE2W/B/S
Power source			Single phase 230 V, 50 Hz			
Cooling Capacity		kW	2.5	3.5	4.2	5
		BTU/h	8,530	11,942	14,330	17,060
Heating Capacity		kW	3.2	4	5.4	5.8
		BTU/h	10,918	13,648	18,425	19,790
Power Consumption	Cooling	kW	0.014			0.018
	Heating	kW	0.027	0.031		0.034
Current	Cooling	A	0.14	0.14	0.14	0.18
	Heating	A	0.26	0.3	0.3	0.32
External finish			Classic White, Matte Silver, Glossy Black			
Dimensions (WxDxH)		[mm]	895 x 195 x 299			
Net weight		[kg]	11.5			
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x Quantity		Line flow fan x 1			
	Airflow rate Cooling (SLo-SHi)	m^3/min	4.0-4.6-6.3-8.3-10.5		5.8-6.6-7.7-8.9-10.3	5.5-6.8-7.9-9.3-11
	Airflow rate Heating(SLo-SHi)	m^3/min	4.0-4.6-6.2-8.9-11.9	4.0-4.6-6.2-8.9-12.7	5.5-6.3-7.8-9.9-12.7	6.4-7.3-9-11.1-13.7
	External static pressure	Pa	N/A			
Fan Motor	Type		RC0J50 - DC motor			
	Current	A	0.14/0.26	0.14/0.30	0.14/0.30	0.18/0.32
Air filter			Nano Platinum			
Refrigerant pipe diameter	Gas (flare)	mm	9.52			12.7
	Liquid (flare)	mm	6.35			
Field drain pipe diameter			I.D. 15mm			
Sound pressure level Cooling (SLo-Lo-Mid-Hi-Shi)		dBA	21-23-29-36-42	21-24-29-36-42	28-31-35-39-42	30-33-36-40-43
Sound pressure level Heating (SLo-Lo-Mid-Hi-Shi)		dBA	21-24-29-37-45	21-24-30-38-46	28-30-35-41-48	30-33-37-43-49

*A PAC-LV11M-J is required for each MSZ-EF indoor unit installed.

INDOOR UNIT
Wall Mounted Type

MSZ-FH Deluxe FH Series
and PAC-LV11M-J External LEV Kit*

The Deluxe FH Series advanced features provide unparalled comfort and energy efficiency. Plasma Quad Filtration, the advanced 3D i-see Sensor, Dual Split Vanes and the Natural Airflow Function set the benchmark in customised comfort.

Energy Saving Intelligent Sensor

The 3D i-see Sensor is an intelligent occupancy sensor that, after a set period of absence, will switch to Energy Saving Mode. This raises or lowers the set temperature by 2°C as required, leading to greater energy savings.

Superior Filtration

The Deluxe FH Series unique split vane design allows airflow to be customised to suit different areas of the room by independently directing air upwards, downwards or to the side. This flexibility can also prevent air from striking obstacles or direct air to areas that require additional heating or cooling. Split Vane Airflow provides fast, even and effective heating, while also being a feasible solution in multi-level environments.

▸Specifications

			MSZ-FH25VE	MSZ-FH35VE	MSZ-FH50VE
Power source			Single phase 230 V, 50 Hz		
Cooling Capacity		kW	2.5	3.5	5
		BTU/h	8,530	11,942	16,378
Heating Capacity		kW	3.2	4.0	6.0
		BTU/h	10,918	13,648	20,472
Power Consumption	Cooling	kW	0.029		0.031
	Heating	kW	0.029		0.031
Current	Cooling	A	0.28		0.29
	Heating	A	0.28		0.29
External finish			White		
Dimensions (WxDxH)		[mm]	925 x 234 x 305(+17)		
Net weight		[kg]	13.5		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity		Line flow fan x 1		
	Airflow rate Cooling (SLo-SHi)	m^3/min	3.9-4.7-6.3-8.6-11.6		6.4-7.4-8.6-10.1-12.4
	Airflow rate Heating(SLo-SHi)	m^3/min	4.0-4.7-6.4-9.2-13.2		5.7-7.2-9.0-11.2-14.6
	External static pressure	Pa	N/A		
Fan Motor	Type		RC0J50 - DC motor		
	Current	A	0.28 / 0.30		
Air filter			Plasma Quad Filter		
Refrigerant pipe diameter	Gas (flare)	mm	9.52		12.7
	Liquid (flare)	mm	6.35		
Field drain pipe diameter			O.D. 16mm		
Sound pressure level Cooling (SLo-Lo-Mid-Hi-Shi)		dBA	20-23-29-36-42	21-24-29-36-42	27-31-35-39-44
Sound pressure level Heating (SLo-Lo-Mid-Hi-Shi)		dBA	20-24-29-36-44	21-24-29-36-44	25-29-34-39-46

*A PAC-LV11M-J is required for each MSZ-FH indoor unit installed.

INDOOR UNIT
Wall Mounted Type

MSZ-GE Classic GE Series
and PAC-LV11M-J External LEV Kit*

The Classic GE Series is a testament to exeptional product quality, reliability and unrivalled for quietness.

New Zealand's Quietest Het Pumps

Starting from barely a whisper, our Classic GE Series allows you to feel the warmth, not hear it. The GE25 and GE35 indoor units start from a hushed 19dBA on their lowest fan speed in Heating Mode.

Wide and Long Airflow (GE60/71/80)

The Wide and Long Airflow Modes enables the airflow direction to be adjusted from left to right and is ideal for open plan environments; ensuring every corner of the room is comfortable. The Long Mode extends airflow by up to 12m to reach even the furthest point of open plan or larger living spaces.

These modes are simply activated at the touch of a button on your remote controller.

▸Specifications

			MSZ-GE25VAD2	MSZ-GE35VAD2	MSZ-GE42VAD2	MSZ-GE50VAD2	MSZ-GE60VAD	MSZ-GE71VAD**	MSZ-GE80VAD**
Power source			Single phase 230 V, 50 Hz						
Cooling Capacity		kW	2.5	3.5	4.2	5	6	7.1	7.8
		BTU/h	8,530	11,942	14,330	16,378	20,472	24,226	26,614
Heating Capacity		kW	3.0	4.0	5.4	5.8	6.8	8.1	9.0
		BTU/h	10,236	13,648	18,425	19,790	23,202	27,638	30,709
Power Consumption	Cooling	kW	0.022	0.029		0.043	0.048	0.058	0.058
	Heating	kW	0.023		0.030	0.039	0.062	0.058	0.058
Current	Cooling	A	0.22	0.29		0.39	0.43	0.51	0.51
	Heating	A	0.23		0.31	0.36	0.53	0.51	0.51
External finish			White						
Dimensions (WxDxH)		[mm]	798 x 232 x 295				1100 x 238 x 325		
Net weight		[kg]	10				16		
Heat exchanger			Cross fin (Aluminum fin and copper tube)						
Fan	Type x Quantity		Line flow fan x 1						
	Airflow rate Cooling (SLo-SHi) (LP)	m^3/min	4.1-4.8-6.7-9.1-11.3	4.1-4.8-6.7-9.1-12.7	5.8-6.8-8.6-10.4-12.8	6.5-7.8-9.6-11.9-15.1	9.8-11.3-13.4-15.6-18.3 (22.3)	9.7-11.5-13.3-15.4-17.8 (20.9)	
	Airflow rate Heating(SLo-SHi) (LP)	m^3/min	4.1-4.8-6.7-9.1-11.5		5.8-7.0-8.6-10.4-13.1	6.5-7.8-9.6-12.2-14.5	9.8-11.3-13.4-15.6-18.3 (20.0)	10.2-11.5-13.3-15.4-17.8 (20.9)	
	External static pressure	Pa	N/A						
Fan Motor	Type		RC0J50 - DC motor				RCOJ56 - DC motor		
	Current	A	0.22 / 0.23	0.29 / 0.23	0.29 / 0.31	0.39 / 0.36	0.43/0.53	0.51/0.51	0.51/0.51
Air filter			Catechin filter				Nano Platinum Filter		
Refrigerant pipe diameter	Gas (flare)	mm	9.52			12.7	12.7	15.88	15.88
	Liquid (flare)	mm	6.35					9.52	9.52
Field drain pipe diameter			O.D. 16mm						
Sound pressure level Cooling (SLo-Lo-Mid-Hi-Shi) (LP)		dBA	19-21-29-36-42	19-22-30-36-43	26-30-35-40-46	28-33-38-44-49	29-37-41-45-49 (52)	30-37-41-45-49 (53)	30-37-41-45-49 (53)
Sound pressure level Heating (SLo-Lo-Mid-Hi-Shi) (LP)		dBA	19-21-29-36-42	19-22-30-36-43	26-30-35-40-46	28-33-37-43-48	29-37-41-45-49 (52)	30-37-41-45-49 (52)	30-37-41-45-49 (52)

*A PAC-LV11M-J is required for each MSZ-GE indoor unit installed.

**Maximum distance from the outdoor unit to the indoor unit must be less than 150m. When the outdoor unit is located lower than the indoor unit the height difference must be less than 30m.

INDOOR UNIT
Floor Mounted Type

MFZ-KJ RapidHeat Series
and PAC-LV11M-J External LEV Kit*

RapidHeat Floor Consoles are the perfect solution for unobtrusive heating at floor level. New advanced sensors with Intuitive Control Logic Technology offer unparalleled low temperature heating performance in the shortest amount of time, all while maintaining maximum energy efficiency.

RapidHeat Technology

Advanced sensors coupled with Intuitive Control Logic mean optimal running temperatures are reached in the shortest amount of time possible with maximum energy efficiency. Automatically activated at start up in low temperature conditions when Two-Way Airflow is selected, warm air is blown in a downward direction first before the air is returned back into the indoor unit where it is reheated a second time

Multi Vane Flow - Even Heat Distribution

The Multi Vane Flow function blows warm air in both an upward and downward direction providing fast, even and effective heating whilst also reducing draughts. This is achieved via three uniquely shaped vanes that are designed for better airflow control and also provide the freedom to be customised to your preference.

▸Specifications

			MFZ-KJ25VE	MFZ-KJ35VE	MFZ-KJ50VE
Power source			Single phase 230 V, 50 Hz		
Cooling Capacity		kW	2.5	3.5	5.0
		BTU/h	8,530	11,942	16,378
Heating Capacity		kW	3.4	4.3	5.8
		BTU/h	11,604	14,672	19,790
Power Consumption	Cooling	kW	0.013		0.021
	Heating	kW	0.016		0.038
Current	Cooling	A	0.14		0.20
	Heating	A	0.17		0.34
External finish			White		
Dimensions (WxDxH)		[mm]	750 x 215 x 600		
Net weight		[kg]	15.0		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity		Line flow fan x 1		
	Airflow rate Cooling (SLo-SHi)	m^3/min	3.9-4.9-5.9-7.1-8.2		5.6-6.7-8.0-9.3-10.6
	Airflow rate Heating(SLo-SHi)	m^3/min	3.9-5.1-6.2-7.7-9.7		6.0-7.4-9.4-11.6-14.0
	External static pressure	Pa	N/A		
Fan Motor	Type		RC0J50 - DC motor		
	Current	A	0.14 / 0.17		0.020 / 0.34
Air filter			Nano Platinum Filter		
Refrigerant pipe diameter	Gas (flare)	mm	9.52		12.70
	Liquid (flare)	mm	6.35		
Field drain pipe diameter			O.D. 16mm		
Sound pressure level Cooling (SLo-Lo-Mid-Hi-Shi)		dBA	20-25-30-35-39		27-31-35-39-44
Sound pressure level Heating (SLo-Lo-Mid-Hi-Shi)		dBA	19-25-30-35-41		29-35-40-45-50

*A PAC-LV11M-J is required for each MFZ-KJ indoor unit installed.

CITY MULTI
External LEV Kit for Designer Series, GE and Deluxe High Walls

PAC-LV11M-J

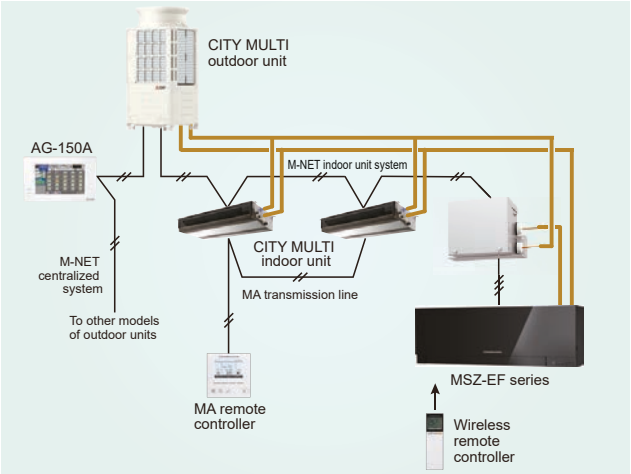
Feature

- Connection between CITY MULTI and Designer Series high walls
- Wider indoor unit selection options
- Controllable from MELANS controller
- Compact size 183 x 355 x 142 mm (H x W x D)
- Maximum distance of 15 m between Connection KIT and RAC Indoor unit
- No need for drain pipe

Specifications

MODEL			PAC-LV11M-J
Power source			Single / 220-240V / 50Hz
Connectable number of indoor unit			1
External finish			Galvanized steel sheet (No external finish)
External dimension H x W x D		mm	183 x 355 x 142
Net weight		kg	3.5
Refrigerant piping diameter	Liquid pipe	mm	6.35 Brazed
	Gas pipe	mm	–
Wiring	To Outdoor unit		2-core shield cable

System Structure



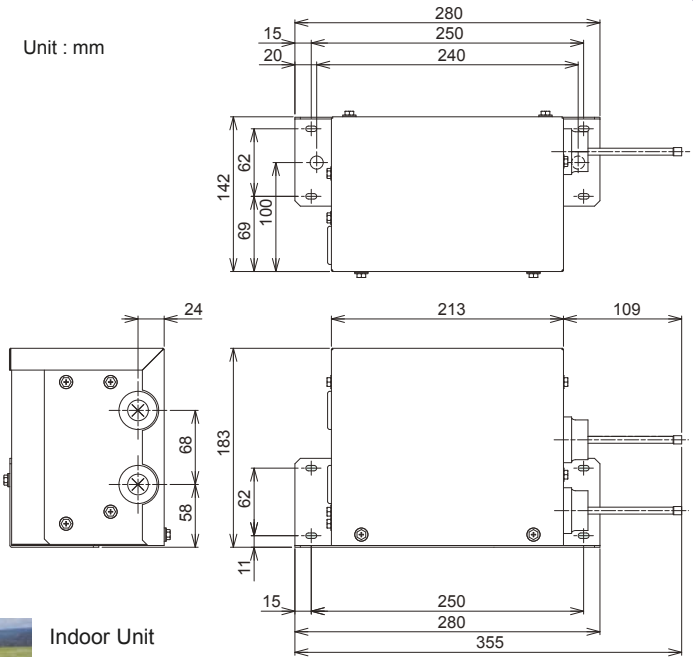
*Refer to the relevant manuals for detailed information and restrictions.

Connectable Models

Outdoor Unit	Indoor Unit
PUHY Series	MSZ-EF Series
PURY Series	MSZ-FH Series
	MSZ-GE Series
	MSZ-KJ Series

External Dimensions

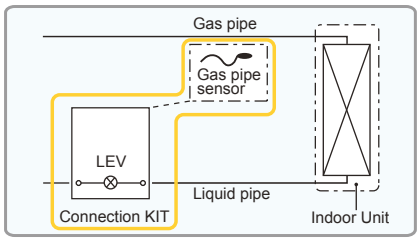
Unit : mm



Indoor Unit

Refrigerant Circuit Diagrams

The gas pipe sensor (packaged, field installed) and the built-in sensor on the RAC units allow for optimum control of the LEV.



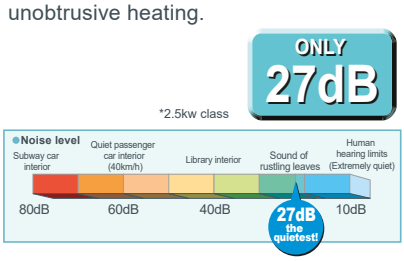
INDOOR UNIT
Floor Console

PFFY-P VKM-E2

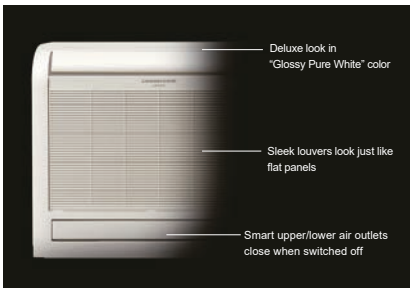
For living rooms, bedrooms, or offices where a sophisticated design is required. The latest Mitsubishi Electric innovation – floor-standing air-conditioners sophisticated in design, rich in function.

Quiet operation

Mitsubishi Electric air conditioners have always been some of the quietest models available in the market. Our new floorstanding models are no exception.
Floor consoles create a quiet, comfortable space and are designed for unobtrusive heating.

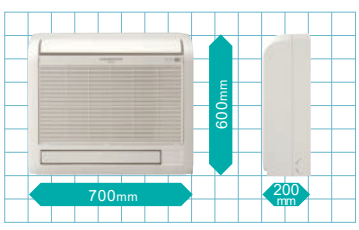


Sophisticated Design



From Mitsubishi Electric, an innovative new floor-standing air-conditioner, a mix of streamlined form and diversified function. Engineered to keep walls free and allowing for comfortable cooling in summer and toasty heating in winter, the "Glossy Pure White" colour ensures a deluxe look, the perfect match for any room. Both upper and lower air outlets remain closed when switched OFF, for a smart and striking look. A superb new air-conditioner from Mitsubishi Electric, providing a handsome fit for your own distinctive interior.

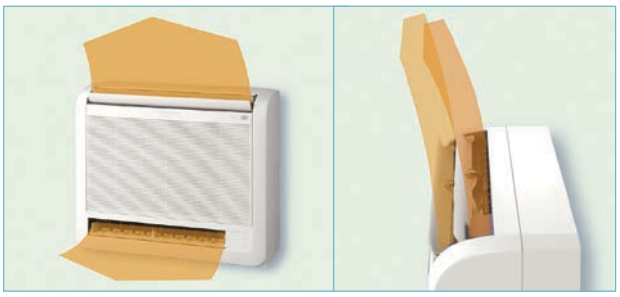
Slim but Mighty



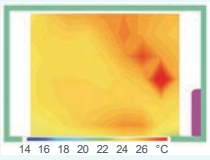
The unit's body is slim and compact; an ideal size for living rooms, bedrooms, and more. The removable and washable front panel makes cleaning a snap. Easy and regular cleaning means your air-conditioner stays pristine while maintaining energy-efficient operation.

Optimum Air Distribution

Comfortable room temperatures are realised by the optimum, powerful and efficient air distribution through upper and lower air outlets. The upper vane angle is remote controllable, with 5 air flow direction levels (+Swing and Auto modes) and 4 wind power levels (+Auto mode).
By setting the vane angle almost vertical, direct air flow can be avoided for increased comfort.



The air from both upper and lower air outlets is optimally controlled and distributed evenly to every corner of the room. In heating mode, the warm air is smartly controlled to stay at the floor level, meaning your feet will never feel chilled again!



▸Specifications

			PFFY-P20VKM-E2	PFFY-P25VKM-E2	PFFY-P32VKM-E2	PFFY-P40VKM-E2
Power source			1-phase 220-240V 50Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.025	0.025	0.025	0.028
	Heating	kW	0.025	0.025	0.025	0.028
Current	Cooling	A	0.20	0.20	0.20	0.24
	Heating	A	0.20	0.20	0.20	0.24
External finish			Plastic (Pure white)			
Dimension H x W x D		mm	600 x 700 x 200			
		in.	23-5/8 x 27-9/16 x 7-7/8			
Net weight		kg(lbs.)	15 (34)			
Heat exchanger			Cross fin (Alminium plate fin and copper tube)			
Fan	Type x Quantity		Line flow fan x 2			
	Airflow rate (Lo-Mid-Hi-SHi)	m^3/min	5.9-6.8-7.6-8.7	6.1-7.0-8.0-9.1	6.1-7.0-8.0-9.1	8.0-9.0-9.5-10.7
	External static pressure	Pa	0			
Motor	Type		DC motor			
	Output	kW	0.03 x 2			
Air filter			PP honeycomb fabric (Catechin Filter)			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter			I.D.16 (5/8)			
Sound pressure level (Lo-Mid-Hi-SHi) *2		dB(A)	27-31-34-37	28-32-35-38	28-32-35-38	35-38-42-44

Notes:

*1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor : 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-middle-high-shigh).

*3 It is measured in anechoic room.

INDOOR UNIT
Floor Standing Exposed

PFFY-P VLEM-E

Floor mounted exposed type, effective for perimeter installation.

- **Standardised design with clean lines**
- **Supports various types of spaces from office buildings and shop buildings to hospitals**
- **Water vapor permeable film humidifier can be installed**
- **Remote controller can be installed onto the main unit**

Compact unit for easy air conditioning in a perimeter zone

The compact body of 220mm(8-11/16in.) in depth can be easily installed in the perimeter zone for effective, unobtrusive air conditioning.

▸Specifications

			PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E	PFFY-P50VLEM-E	PFFY-P63VLEM-E
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
	Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current	Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
	Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsell No.)			Acrylic paint (5Y 8/1)					
Dimension H x W x D		mm	630 x 1,050 x 220		630 x 1,170 x 220		630 x 1,410 x 220	
		in.	24-13/16 x 41-3/8 x 8-11/16		24-13/16 x 46-1/8 x 8-11/16		24-13/16 x 55-9/16 x 8-11/16	
Net weight		kg(lbs.)	23 (51)		25 (56)	26 (58)	30 (67)	32 (71)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type x Quantity		Sirocco fan x 1		Sirocco fan x 2			
	Airflow rate (Lo-Hi) *2	m^3/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
		L/s	92-108		117-150	150-183	200-233	200-258
		cfm	194-230		247-318	318-388	424-494	424-547
	External static pressure	Pa	0					
Motor	Type		1-phase induction motor					
	Output	kW	0.015		0.018	0.030	0.035	0.050
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>					
Sound pressure level (Lo-Hi) *2 *3 *4		dB(A)	34-40		35-40	38-43		40-46

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Air flow rate/Sound pressure level are in (Low-High)

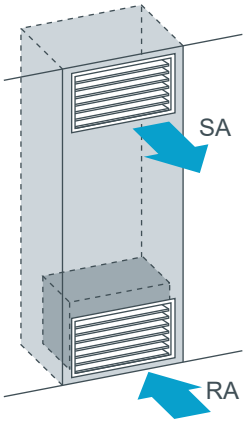
*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz
· 1dB(A) lower at AC230V/50Hz
· 2dB(A) lower at AC220V/50Hz
· 3dB(A) lower at 1.5m x 1.5m point

*4 It is measured in anechoic room.

INDOOR UNIT
Floor Mounted Concealed Type

PFFY-P VLRM-E
PFFY-P VLRMM-E

Neatly installed with pericover concealed.
Easy installation in perimeter zone.



installation image (PFFY-P VLRMM-E)

Compact unit for easy air conditioning in a perimeter zone

The body is concealed in the pericover to pursue harmony with the interior.
The compact body of 220mm(8-11/16in.) in depth can be easily installed in a perimeter zone.

Maximum external static pressure 60Pa (VLRMM model)

The additional external static pressure capacity provides flexibility for duct extension, branching, and air outlet configuration.

This provides a very good option for many residential houses where there is insufficient ceiling spaces for traditional ducted units.

▸Specifications

			PFFY-P20VLRM-E	PFFY-P25VLRM-E	PFFY-P32VLRM-E	PFFY-P40VLRM-E	PFFY-P50VLRM-E	PFFY-P63VLRM-E
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
	Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current	Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
	Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsell No.)			Galvanized steel plate					
Dimension H x W x D		mm	639 x 886 x 220		639 x 1,006 x 220		639 x 1,246 x 220	
		in.	25-3/16 x 34-15/16 x 8-11/16		25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-1/16 x 8-11/16	
Net weight		kg(lbs.)	18.5 (41)		20 (45)	21 (47)	25 (56)	27 (60)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type x Quautity		Sirocco fan x 1		Sirocco fan x 2			
	Airflow rate (Lo-Hi) *2	m^3/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
		L/s	92-108		117-150	150-183	200-233	200-258
		cfm	194-230		247-318	318-388	424-494	424-547
	External static pressure	Pa	0					
Motor	Type		1-phase induction motor					
	Output	kW	0.015		0.018	0.030	0.035	0.050
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>					
Sound pressure level (Lo-Hi) *2 *3 *4		dB(A)	34-40		35-40	38-43		40-46

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Air flow rate/Sound pressure level are in (Low-High)

*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz
· 1dB(A) lower at AC230V/50Hz
· 2dB(A) lower at AC220V/50Hz
· 3dB(A) lower at 1.5m x 1.5m point

*4 It is measured in anechoic room.

Floor mounted 60Pa

			PFFY-P20VLRMM-E	PFFY-P25VLRMM-E	PFFY-P32VLRMM-E	PFFY-P40VLRMM-E	PFFY-P50VLRMM-E	PFFY-P63VLRMM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04		0.04	0.05	0.05	0.07
	Heating	kW	0.04		0.04	0.05	0.05	0.07
Current	Cooling	A	0.34		0.38	0.43	0.48	0.59
	Heating	A	0.34		0.38	0.43	0.48	0.59
External finish(Munsell No.)			Galvanized steel plate					
Dimension H x W x D		mm	639 x 886 x 220		639 x 1,006 x 220		639 x 1,246 x 220	
		in.	25-3/16 x 34-15/16 x 8-11/16		25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-1/16 x 8-11/16	
Net weight		kg(lbs.)	18.5 (41)		20 (45)	21 (47)	25 (56)	27 (60)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type x Quautity		Sirocco fan x 1		Sirocco fan x 2			
	Airflow rate (Lo-Mid-Hi)	m^3/min	4.5-5.5-6.5		6.5-7.5-9.0	8.0-9.5-11.0	10.0-12.0-14.0	11.0-13.0-15.5
		L/s	75-92-108		108-125-150	133-158-183	167-200-233	183-217-258
		cfm	159-194-230		230-265-318	282-335-388	353-424-494	388-459-547
	External static pressure *2	Pa	20/40/60					
Motor	Type		DC motor					
	Output	kW	0.096					
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed					ø15.88 (ø5/8) Brazed
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed					ø9.52 (ø3/8) Brazed
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>					
Sound pressure level (Lo-Mid-Hi) *3	20Pa	dB(A)	31-36-40		27-32-37	30-36-40	32-37-41	35-40-44
	40Pa	dB(A)	34-39-42		30-35-41	32-38-42	35-40-44	36-42-47
	60Pa	dB(A)	35-40-43		32-37-42	3.5-39-44	36-41-45	38-43-48

Notes:

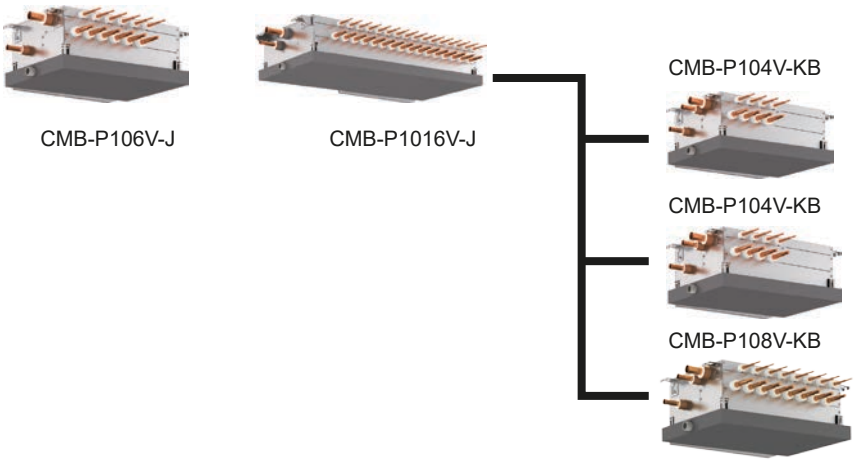
*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
pipe length : 7.5m(24-9/16ft) Height difference : 0m(0ft)

*2 The external static pressure is set to 20Pa at factory shipment.

*3 The sound pressure level in operation is measured at 1m apart from the front side and the bottom side of the unit in anechoic room.
(Noise meter A-scale value) Connect the duct of 1m in length to the air outlet.

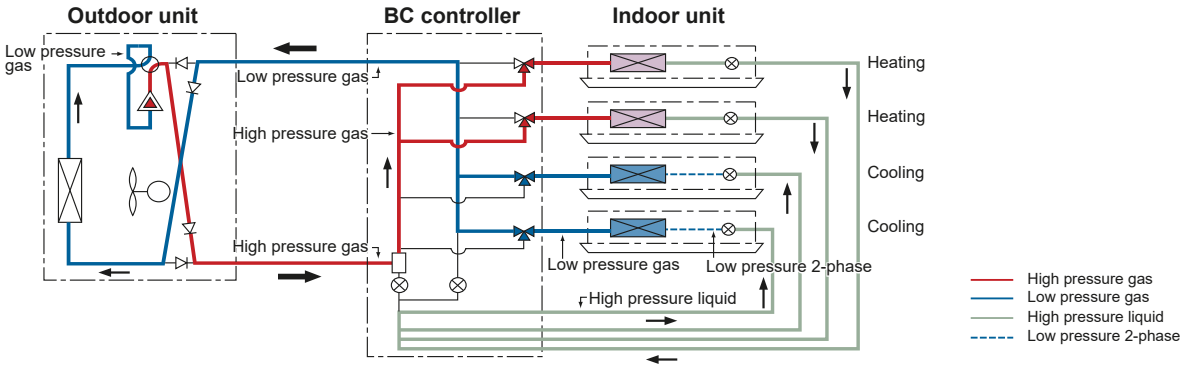
BC CONTROLLER

CMB-P-V-J
CMB-P-V-JA
CMB-P-V-KA
CMB-P-V-KB1



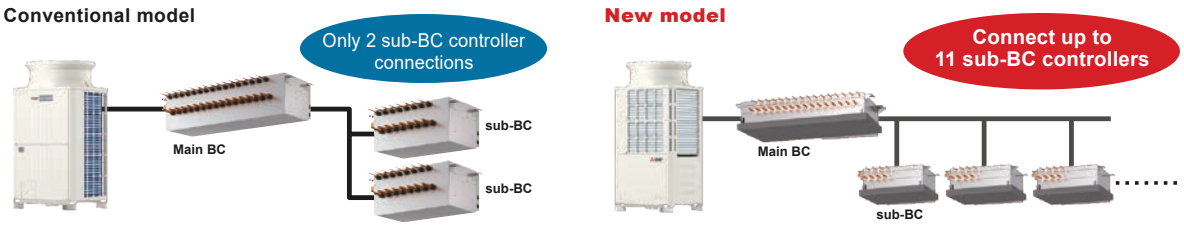
BC CONTROLLER

In many ways, the BC Controller is the technological heart of the CITY MULTI R2/WR2. It works in unison with the outdoor unit to provide simultaneous cooling and heating, something no other two-pipe system can do. The BC Controller is connected to the outdoor unit by two pipes and to each indoor unit by a series of two refrigerant pipes, depending on the indoor unit count. The BC Controller is required for all CITY MULTI R2-Series installations. It comes in 4, 6, 8, 12, and 16-branch options. The BC Controller you select depends on how many indoor units will be operated from each outdoor unit and your total capacity requirements.

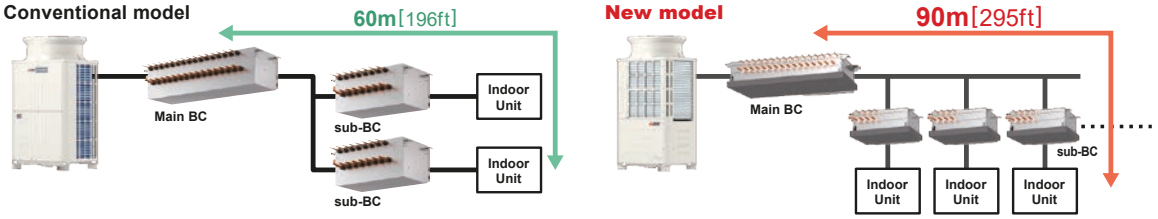


1 Sub-BC controller connections increased

Only two sub-BC controllers could be connected to a main BC controller in previous models. Up to 11 sub-BC controllers can now be connected to the new BC controller, allowing for more flexibility in system design.
The line-branching method enables the creation of system designs that use less refrigerant.



2 Greater flexibility in refrigerant piping design



The piping length from the main BC controller to indoor units has been increased from 60m[196ft] to 90m[295ft], providing greater flexibility in piping design.

*Sub-BC controllers should be used when piping length is 60m[196ft.] or more.

▸Specifications

Model				CMB-P104V-J	CMB-P106V-J	CMB-P108V-J	CMB-P1012V-J	CMB-P1016V-J
Number of branch				4	6	8	12	16
Power source				1-phase 220-230-240 V				
Power input	kW	50Hz	Cooling	0.067/0.076/0.085	0.097/0.110/0.123	0.127/0.144/0.161	0.186/0.211/0.236	0.246/0.279/0.312
			Heating	0.030/0.034/0.038	0.045/0.051/0.057	0.060/0.068/0.076	0.090/0.102/0.114	0.119/0.135/0.151
		60Hz	Cooling	0.054/0.061/0.067	0.078/0.088/0.097	0.102/0.115/0.127	0.150/0.168/0.186	0.198/0.222/0.246
			Heating	0.024/0.027/0.030	0.036/0.041/0.045	0.048/0.054/0.060	0.072/0.081/0.090	0.096/0.108/0.119
Current	A	50Hz	Cooling	0.31/0.34/0.36	0.45/0.48/0.52	0.58/0.63/0.68	0.85/0.92/0.99	1.12/1.22/1.30
			Heating	0.14/0.15/0.16	0.21/0.23/0.24	0.28/0.30/0.32	0.42/0.44/0.48	0.55/0.59/0.63
		60Hz	Cooling	0.25/0.27/0.28	0.36/0.39/0.41	0.47/0.50/0.53	0.69/0.74/0.78	0.90/0.97/1.03
			Heating	0.11/0.12/0.13	0.17/0.18/0.19	0.22/0.24/0.25	0.33/0.36/0.38	0.44/0.47/0.50
External finish				Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)				
Indoor unit capacity connectable to 1 branch *12				Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)				
Connectable outdoor/heat source unit capacity				P200 to P350				
Height	mm			246				
Width	mm			596			911	1,135
Depth	mm			495			639	
Refrigerant piping diameter	To outdoor/heat source unit			Connectable unit capacity				
				P200		P250/P300		P350 *13
		High press. pipe		15.88 (5/8) Brazed		19.05 (3/4) Brazed		19.05 (3/4) Brazed or 22.2 (7/8) Brazed
		Low press. pipe		19.05 (3/4) Brazed		22.2 (7/8) Brazed		28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed				
		Gas pipe		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2(7/8) with optional joint pipe used.)				
Drain pipe	mm (in.)			O.D. 32 (1-1/4)				
Net weight	kg (lbs)			23 (51)	27 (60)	31 (69)	46 (102)	56 (124)
Sound power level (measured in anechoic room)	dB <A>	Rated operation		56(When P200 Outdoor/Heat source unit is connected),57(P250),59(P350)				
		Defrost		71				
Sound pressure level (measured in anechoic room)	dB <A>	Rated operation		38(When P200 Outdoor/Heat source unit is connected),39(P250),40(P350)				
		Defrost		53				
Accessories				Drain Connection pipe, Washer, Tie band				

Model				CMB-P108V-JA	CMB-P1012V-JA	CMB-P1016V-JA
Number of branch				8	12	16
Power source				1-phase 220-230-240 V		
Power input	kW	50Hz	Cooling	0.127/0.144/0.161	0.186/0.211/0.236	0.246/0.279/0.312
			Heating	0.060/0.068/0.076	0.090/0.102/0.114	0.119/0.135/0.151
		60Hz	Cooling	0.102/0.115/0.127	0.150/0.168/0.186	0.198/0.222/0.246
			Heating	0.048/0.054/0.060	0.072/0.081/0.090	0.096/0.108/0.119
Current	A	50Hz	Cooling	0.58/0.63/0.68	0.85/0.92/0.99	1.12/1.22/1.30
			Heating	0.28/0.30/0.32	0.42/0.44/0.48	0.55/0.59/0.63
		60Hz	Cooling	0.47/0.50/0.53	0.69/0.74/0.78	0.90/0.97/1.03
			Heating	0.22/0.24/0.25	0.33/0.36/0.38	0.44/0.47/0.50
External finish				Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Indoor unit capacity connectable to 1 branch *12				Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
Connectable outdoor/heat source unit capacity				P200 to P900		
Height	mm			246		
Width	mm			911	1,135	
Depth	mm			639		
Refrigerant piping diameter	To outdoor/heat source unit			Connectable unit capacity		
				P200	P250/P300	P350 *13
		High press. pipe		15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed or 22.2 (7/8) Brazed
		Low press. pipe		19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		
		Gas pipe		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)		
	To other BC controller			Total down-stream Indoor unit capacity		
				to P200	P201 to P300	P301 to P350
		High press. pipe		15.88 (5/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		Low press. pipe		19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
		Liquid pipe		9.52 (3/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
Drain pipe	mm (in.)			O.D. 32 (1-1/4)		
Net weight	kg (lbs)			45 (100)	56 (124)	63 (139)
Sound power level (measured in anechoic room)	dB <A>	Rated operation		62(When P250 Outdoor/Heat source unit is connected),65(P450),68(P700),69(P900)		
		Defrost		74		
Sound pressure level (measured in anechoic room)	dB <A>	Rated operation		44(When P250 Outdoor/Heat source unit is connected),47(P450),50(P700),51(P900)		
		Defrost		56		
Accessories				Drain Connection pipe, Washer, Tie band		

Model				CMB-P108V-JA	CMB-P1012V-JA	CMB-P1016V-JA
				P400 to P500	P550 *13	P600 *13
		High press. pipe		22.2 (7/8) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
		Low press. pipe		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed
				P651 to P800	P801 to P1000	P1001 or above
		High press. pipe		28.58 (1-1/8) Brazed		34.93 (1-3/8) Brazed
		Low press. pipe		34.93 (1-3/8) Brazed	41.28 (1-5/8) Brazed	
		Liquid pipe		19.05 (3/4) Brazed		

				CMB-P1012V-JA	CMB-P1016V-JA
				P650	P700 to P800	P850 to P900
		High press. pipe		28.58 (1-1/8) Brazed		
		Low press. pipe		28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	41.28 (1-5/8) Brazed

★ Combination chart of BC Controller for R2 series (YNW)

	P200-P350	P400-P900	
CMB-P VJ	✓	N/A	N/A
CMB-P V-JA	✓	✓	N/A
CMB-P V-KA	✓	✓	✓
CMB-P V-KB (Sub)	CMB-P108/1012/1016V-JA, CMB-P1016V-KA		

Specifications

Model				CMB-P1016V-KA
Number of branch				16
Power source				1-phase 220-230-240 V
Power input	kW	50Hz	Cooling	0.246/0.279/0.312
			Heating	0.119/0.135/0.151
		60Hz	Cooling	0.198/0.222/0.246
			Heating	0.096/0.108/0.119
Current	A	50Hz	Cooling	1.12/1.22/1.30
			Heating	0.55/0.59/0.63
		60Hz	Cooling	0.90/0.97/1.03
			Heating	0.44/0.47/0.50
External finish				Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)
Indoor unit capacity connectable to 1 branch *12				Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)
The maximum number of connectable Sub BC controllers				-
The maximum connectable capacity of indoor units				-
Connectable outdoor/heat source unit capacity				P200 to P1100
Connectable Main BC controller				-
Height	mm			246
Width	mm			1,135
Depth	mm			639
Refrigerant piping diameter	To outdoor/heat source unit			Connectable unit capacity

		P200	P250/P300	P350 *13	P400 to P500	P550 *13	P600 *13	P650	P700 to P800	P850 to P1000	P1050 to P1100
High press. pipe		15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed			34.93 (1-3/8) Brazed
Low press. pipe		19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed			28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	41.28(1-5/8) Brazed	
To indoor unit	Liquid pipe	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed									
	Gas pipe	Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)									

To other BC controller		Total down-stream Indoor unit capacity								
		to P200	P201 to P300	P301 to P350	P351 to P400	P401 to P600	P601 to P650	P651 to P800	P801 to P1000	P1001 or above
	High press. pipe	15.88 (5/8) Brazed	19.05 (3/4) Brazed		22.2 (7/8) Brazed		28.58 (1-1/8) Brazed			34.93 (1-3/8) Brazed
	Low press. pipe	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed				34.93 (1-3/8) Brazed	41.28(1-5/8) Brazed	
	Liquid pipe	9.52 (3/8) Brazed		12.7 (1/2) Brazed		15.88 (5/8) Brazed		19.05 (3/4) Brazed		

Drain pipe	mm (in.)			O.D. 32 (1-1/4)
Net weight	kg (lbs)			65 (144)
Sound power level (measured in anechoic room)	dB <A>	Rated operation		56(When P300 Outdoor/Heat source unit is connected),61(P550),63(P800),66(P1100)
		Defrost		73
Sound pressure level (measured in anechoic room)	dB <A>	Rated operation		38(When P300 Outdoor/Heat source unit is connected),43(P550),45(P800),48(P1100)
		Defrost		55
Accessories				Drain Connection pipe, Washer, Tie band

Model				CMB-P104V-KB *14*15
Number of branch				4
Power source				1-phase 220-230-240 V
Power input	kW	50Hz	Cooling	0.060/0.068/0.076
			Heating	0.030/0.034/0.038
		60Hz	Cooling	0.048/0.054/0.060
			Heating	0.024/0.027/0.030
Current	A	50Hz	Cooling	0.28/0.30/0.32
			Heating	0.14/0.15/0.16
		60Hz	Cooling	0.22/0.24/0.25
			Heating	0.11/0.12/0.13
External finish				Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)
The maximum number of connectable Sub BC controllers				11
The maximum connectable capacity of indoor units				P350 for each
Connectable Main BC controller				CMB-P108/1012/1016V-JA, CMB-P1016V-KA
Height	mm			246
Width	mm			596
Depth	mm			495
Refrigerant piping diameter	To outdoor/heat source unit			-
				-
	High press. pipe			-
	Low press. pipe			-
	To indoor unit	Liquid pipe		Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed
		Gas pipe		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)

To other BC controller		Total down-stream Indoor unit capacity								
		to P200	P201 to P300	P301 to P350	P351 to P400	P401 to P600	P601 to P650	P651 to P800	P801 to P1000	P1001 or above
	High press. pipe	15.88 (5/8) Brazed	19.05 (3/4) Brazed		22.2 (7/8) Brazed		28.58 (1-1/8) Brazed			34.93 (1-3/8) Brazed
	Low press. pipe	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed				34.93 (1-3/8) Brazed	41.28(1-5/8) Brazed	
	Liquid pipe	9.52 (3/8) Brazed		12.7 (1/2) Brazed		15.88 (5/8) Brazed		19.05 (3/4) Brazed		

Drain pipe	mm (in.)			O.D. 32 (1-1/4)
Net weight	kg (lbs)			21 (47)
Sound power level (measured in anechoic room)	dB <A>	Rated operation		56(When P200 Outdoor/Heat source unit is connected),57(P250),59(P350)
		Defrost		71
Sound pressure level (measured in anechoic room)	dB <A>	Rated operation		38(When P200 Outdoor/Heat source unit is connected),39(P250),40(P350)
		Defrost		53
Accessories				Drain Connection pipe, Washer, Tie band

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.
   (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition.
   The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.

*12 Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
*13 For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
*14 When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
*15 Can't use singleness. (MAIN BC CONTROLLER is necessary)

Specifications

Model					CMB-P108V-KB
Number of branch					8
Power source					1-phase 220-230-240 V
Power input		kW	50Hz	Cooling	0.119/0.135/0.151
				Heating	0.060/0.068/0.076
			60Hz	Cooling	0.096/0.108/0.119
				Heating	0.048/0.054/0.060
Current		A	50Hz	Cooling	0.55/0.59/0.63
				Heating	0.28/0.30/0.32
			60Hz	Cooling	0.44/0.47/0.50
				Heating	0.22/0.24/0.25
External finish					Galvanised steel plate (lower part drain pan: Pre-coated galvanised sheets + powder coating)
The maximum number of connectable Sub BC controllers					11
The maximum connectable capacity of indoor units					P350 for each
Connectable Main BC controller					CMB-P108/1012/1016V-JA, CMB-P1016V-KA
Height		mm			246
Width		mm			596
Depth		mm			495
Refrigerant piping diameter	To outdoor/heat source unit				-
					-
		High press. pipe			-
		Low press. pipe			-
	To indoor unit	Liquid pipe			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed
		Gas pipe			Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
	To other BC controller				Total down-stream Indoor unit capacity
					to P200 / P201 to P300 / P301 to P350 / P351 to P400 / P401 to P600 / P601 to P650 / P651 to P800 / P801 to P1000 / P1001 or above
		High press. pipe			15.88 (5/8) Brazed / 19.05 (3/4) Brazed / 22.2 (7/8) Brazed / 28.58 (1-1/8) Brazed / 34.93 (1-3/8) Brazed
		Low press. pipe			19.05 (3/4) Brazed / 22.2 (7/8) Brazed / 28.58 (1-1/8) Brazed / 34.93 (1-3/8) Brazed / 41.28 (1-5/8) Brazed
		Liquid pipe			9.52 (3/8) Brazed / 12.7 (1/2) Brazed / 15.88 (5/8) Brazed / 19.05 (3/4) Brazed
Drain pipe		mm (in.)			O.D. 32 (1-1/4)
Net weight		kg (lbs)			28 (62)
Sound power level (measured in anechoic room)		dB <A>	Rated operation		56(When P200 Outdoor/Heat source unit connected),57(P250,59(P350)
			Defrost		71
Sound pressure level (measured in anechoic room)		dB <A>	Rated operation		38(When P200 Outdoor/Heat source unit connected),39(P250,40(P350)
			Defrost		53
Accessories					Drain Connection pipe, Washer, Tie band

Notes:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.
   (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition.
   The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB regardless of the unit model.
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.

*12 Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.

*13 For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

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

*15 Can't use singleness. (MAIN BC CONTROLLER is necessary)

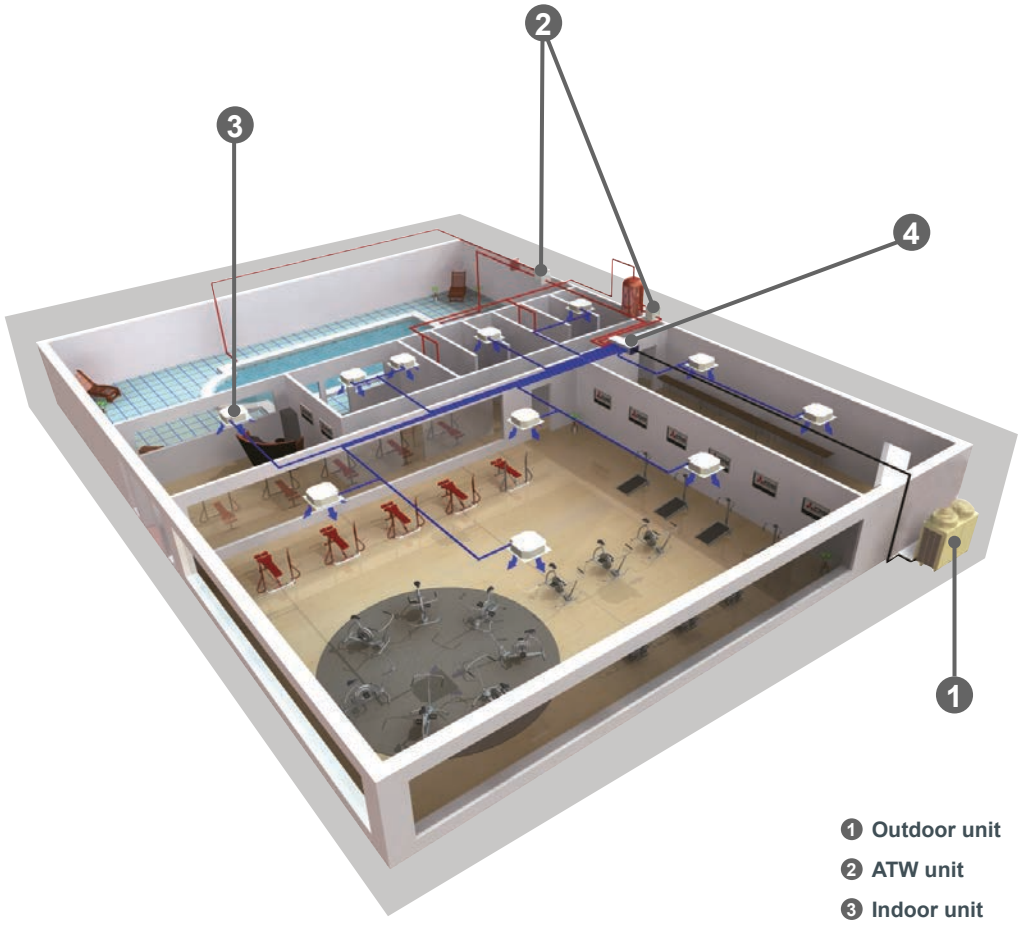
Air To Water series

PWFY-P100VM-E-BU
PWFY-EP100VM-E1-AU
PWFY-P200VM-E1-AU

Air To Water advanced system explained.

Air To Water (ATW) series offers the choice between two types of units; a Booster unit and a HEX (Heat Exchanger) unit. A Booster unit offers hot water to a maximum of 70°C and the HEX unit offers 40°C in heating and down to 10°C in cooling. Applying heat pump and heat recovery technology to provide hot water, the units are suitable for residences, office buildings, restaurants or hotels, providing an optimal environment while benefiting from reduced running costs and less impact on the environment.

An ATW system consists of an outdoor unit, a BC controller when connected with R2 series, ATW unit, indoor unit and a controller.



1. Outdoor unit
2. ATW unit
3. Indoor unit
4. BC controller

Line Up

① ATW UNIT

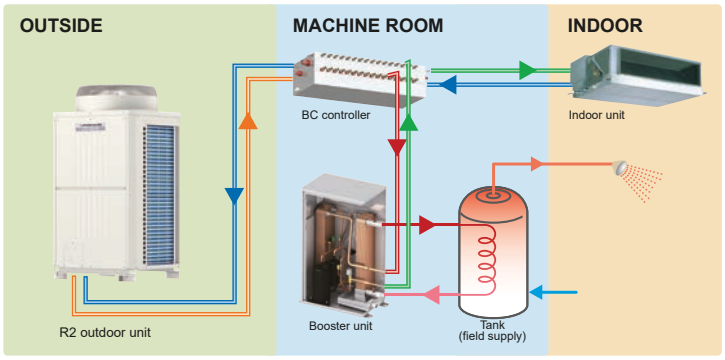
BOOSTER UNIT

Benefiting from the heat recovery operation of the CITY MULTI R2 system, the Booster unit converts energy from the air to higher temperatures suitable for supplying hot water, resulting in virtually no energy waste.

PWFY-P100VM-E-BU

Connectable to	Applications	Operation
CITY MULTI R2/WR2 series REPLACE MULTI R2 series	best for sanitary water, showers, etc.	up to 70°C

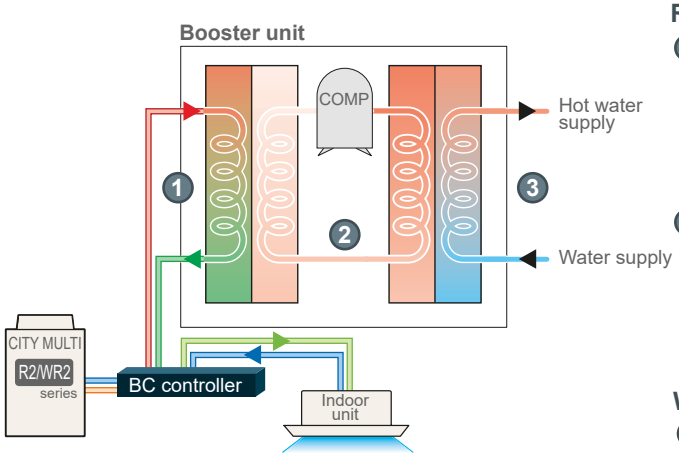
SYSTEM OUTLINE



The Booster unit is connected to a BC controller with refrigerant pipes, and to the water tank with water pipes. The waste heat from cooling operation is utilised for heating operation to provide hot water.

Red — High-pressure gas refrigerant
Orange — High-pressure 2-phase refrigerant
Green — High-pressure liquid refrigerant
Blue — Low-pressure gas refrigerant

What makes Booster unit unique?



Red — High-pressure gas refrigerant
Orange — High-pressure 2-phase refrigerant
Green — High-pressure liquid refrigerant
Blue — Low-pressure gas refrigerant

Refrigerant flow

① From the BC controller, high pressure R410A gas refrigerant is delivered to the Booster unit to exchange heat with the low pressure R134a liquid refrigerant circulating through ② and returns to the BC controller as a high pressure liquid refrigerant.

② Refrigerant R134a circulates inside the two plate heat exchangers inside the unit.
Temperature rises as low-pressure R134a gas refrigerant is compressed by the compressor and becomes high-pressure gas refrigerant.

Water supply

③ Water entering the Booster unit exchanges heat with high-pressure R134a gas refrigerant. The hot water circulates to heat the water inside the tank which will be used for showers, sanitary water, etc.

HEX UNIT

By utilising waste heat from the R2 outdoor unit for heating operation in the HEX unit, it is possible to supply hot water with high efficiency. Also, even when connected with a Y series system, it provides efficient operation compared to a conventional system.

PWFY-EP100VM-E1-AU
PWFY-P200VM-E1-AU

Connectable to

CITY MULTI
R2/WR2/
Y/WY/ZUBADAN series
S series
REPLACE MULTI
R2/Y series

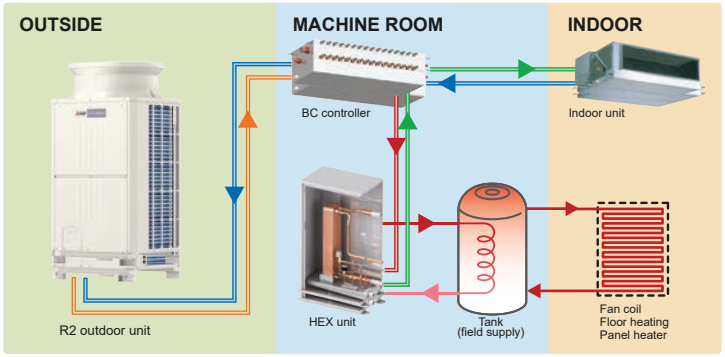
Applications

best for floor heating, panel heater, fan-coil unit(AHU), etc.

Operation

hot water up to 45°C
cold water down to 8°C

SYSTEM OUTLINE HEX unit with R2 series



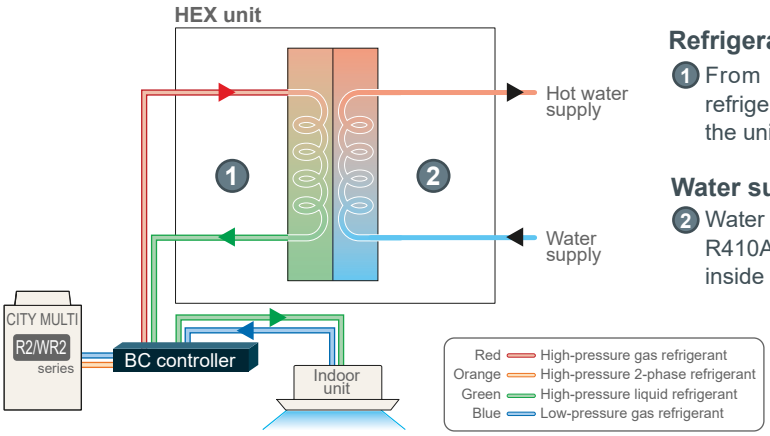
The HEX unit is connected to BC controller with refrigerant pipes, and to the water tank with water pipes. The HEX unit is not equipped with a compressor.

Red	High-pressure gas refrigerant
Orange	High-pressure 2-phase refrigerant
Green	High-pressure liquid refrigerant
Blue	Low-pressure gas refrigerant

*The image is a system example in case of heating mode.
*The necessity of the tank depends on the system configuration.

What makes HEX unit unique with R2/WR2 series?

Hot water supply



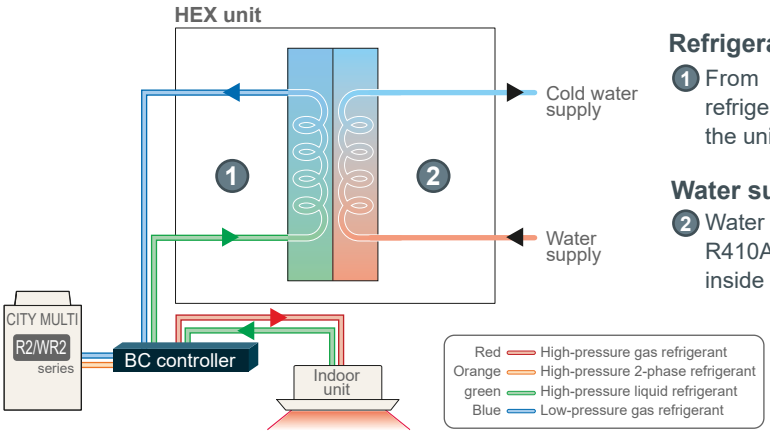
Refrigerant flow

1 From the BC controller, high-pressure R410A gas refrigerant is delivered to the HEX unit and returns to the unit as high-pressure liquid refrigerant.

Water supply

2 Water entering the HEX unit exchanges heat with the R410A refrigerant and water circulates to heat the water inside the tank.

Cold water supply



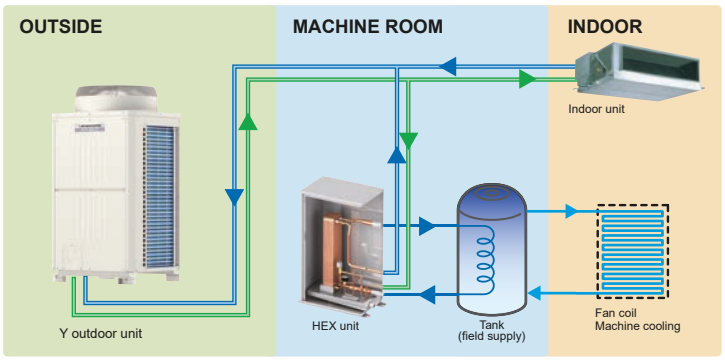
Refrigerant flow

1 From the BC controller, high-pressure R410A liquid refrigerant is delivered to the HEX unit and returns to the unit as low-pressure gas refrigerant.

Water supply

2 Water entering the HEX unit exchanges heat with the R410A refrigerant and water circulates to cool the water inside the tank.

SYSTEM OUTLINE HEX unit with Y series

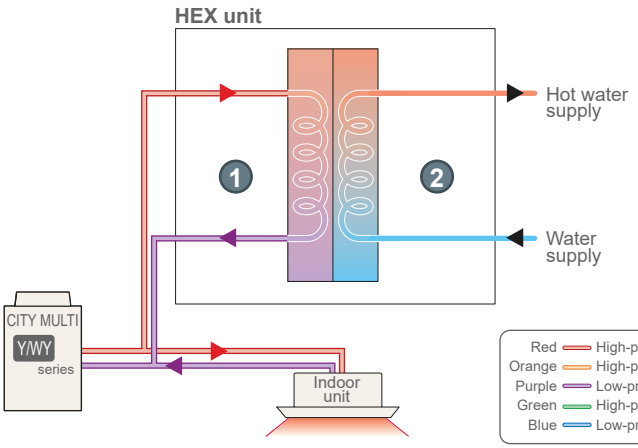


The HEX unit is connected to the Y series outdoor unit with refrigerant pipes, and to the water tank with water pipes. The HEX unit is not equipped with a compressor.

Red — High-pressure gas refrigerant
Orange — High-pressure 2-phase refrigerant
Green — High-pressure liquid refrigerant
Blue — Low-pressure gas refrigerant

What makes HEX unit unique with Y/WY series?

Hot water supply



Red — High-pressure gas refrigerant
Orange — High-pressure 2-phase refrigerant
Purple — Low-pressure 2-phase refrigerant
Green — High-pressure liquid refrigerant
Blue — Low-pressure gas refrigerant

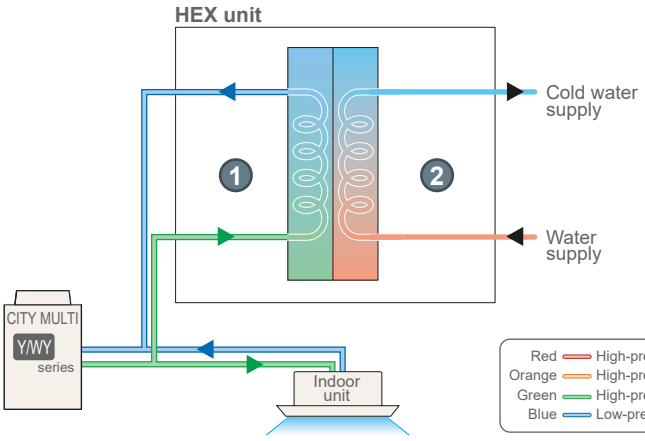
Refrigerant flow

1 From the outdoor unit, high-pressure R410A gas refrigerant is delivered to the HEX unit and returns to the unit as low-pressure 2-phase refrigerant.

Water supply

2 Water entering the HEX unit exchanges heat with the R410A refrigerant and water circulates to heat the water inside the tank.

Cold water supply



Red — High-pressure gas refrigerant
Orange — High-pressure 2-phase refrigerant
Green — High-pressure liquid refrigerant
Blue — Low-pressure gas refrigerant

Refrigerant flow

1 From the outdoor unit, high-pressure R410A liquid refrigerant is delivered to the HEX unit and returns to the unit as low-pressure gas refrigerant.

Water supply

2 Water entering the HEX unit exchanges heat with the R410A refrigerant and water circulates to cool the water inside the tank.

ATW UNIT
HEX Unit
PWFY-EP100VM-E1-AU

MAX 45°C HOT WATER

▸ Specifications

Model			PWFY-EP100VM-E1-AU
Power source			1 - phase 220 - 230 - 240V 50 / 60Hz
Heating capacity (Nominal)	*1	kW	12.5
	*1	kcal / h	10,800
	*1	BTU / h	42,700
	Power input	kW	0.015
	Current input	A	0.068 - 0.065 - 0.063
Temp. range of heating	Outdoor temp. for outdoor unit	W.B.	-20 ~ 32°C (-4 ~ 90°F) R2 - series
		W.B.	-20 ~ 15.5°C (-4 ~ 60°F) Y - series
		W.B.	-25 ~ 15.5°C (-13 ~ 60°F) HP (ZUBADAN) - series
	Circulating Water temp. for heat source unit	-	10 ~ 45°C (50 ~ 113°F) WR2 - series
		-	10 ~ 45°C (50 ~ 113°F) WY - series
	Inlet Water temp. for PWFY	-	10 ~ 40°C (50~104°F) R2/Y/HP (ZUBADAN) /WR2/WY -series
Cooling capacity (Nominal)	*2	kW	11.2
	*2	kcal / h	9,600
	*2	BTU / h	38,200
	Power input	kW	0.015
	Current input	A	0.068 - 0.065 - 0.063
Temp. range of cooling	Outdoor temp. for outdoor unit	D.B.	-5 ~ 46°C (23 ~ 115°F) R2 - series
		D.B.	-5 ~ 46°C (23 ~ 115°F) Y - series
		D.B.	-5 ~ 43°C (23 ~ 110°F) HP (ZUBADAN) - series
	Circulating Water temp. for heat source unit	-	10 ~ 45°C (50 ~ 113°F) WR2 - series
		-	10 ~ 45°C (50 ~ 113°F) WY - series
	Inlet Water temp. for PWFY	-	10 ~ 35°C (50 ~ 95°F)
Connectable outdoor unit/ heat source unit	Total capacity		50~100% of outdoor/heat source unit capacity
	Model / Quantity		PUHY-P•Y(S)KB-A1(-BS), PUHY-EP•Y(S)LM-A(-BS), PUHY-HP•Y(S)HM-A(-BS), PQHY-P•Y(S)HM-A, PURY-(E)P•Y(S)LM-A(1)(-BS), PQRY-P•Y(S)HM-A
Sound pressure level (measured in anechoic room)		dB <A>	29
Diameter of refrigerant pipe	Liquid	mm (in.)	ø9.52 (ø3/8") Brazed
	Gas	mm (in.)	ø15.88 (ø5/8") Brazed
Diameter of water pipe	Inlet	mm (in.)	PT1 Screw (PT3/4 Screw without Expansion joint)
	Outlet	mm (in.)	PT1 Screw (PT3/4 Screw without Expansion joint)
Field drain pipe size		mm (in.)	ø32 (1-1/4")
External finish			NO
External dimension H × W × D		mm	800 (785 without legs) × 450 × 300
		in.	31-1/2" (30-15/16" without legs) × 17-3/4" × 11-13/16"
Net weight		kg (lbs)	33 (73)
Circulating water	Operation Volume Range	m^3 / h	1.8 ~ 4.30
Design pressure	R410A	MPa	4.15
	Water	MPa	1.00
Drawing	External		WKJ94T340
	Wiring		WKE94C951
Standard attachment	Document		Installation Manual, Instruction Book
	Accessory		Strainer, Heat insulation material, Expansion joint, Flow switch × 1 set, Buffer material
Optional parts			Solenoid valve kit: PAC-SV01PW-E
Remark			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

Note: *1Nominal heating conditions (PWFY conditions are indicated in the parentheses.)

<Y/HP(ZUBADAN)/R2-series>
Outdoor Temp. : 7°CDB/6°CWB (45°FDB / 43°FWB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
(Inlet water Temp. 30°C, Water flow rate 4.30m^3/h)

<WY/WR2-series>
Circulating water Temp. : 20°C (68°F)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
(Inlet water Temp. for PWFY side 30°C, Water flow rate 4.30m^3/h)

*2Nominal cooling conditions (PWFY conditions are indicated in the parentheses.)

<Y/HP(ZUBADAN)/R2-series>
Outdoor Temp. : 35°CDB (95°FDB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
(Inlet water Temp. 23°C, Water flow rate 3.86m^3/h)

<WY/WR2-series>
Circulating water Temp. : 30°C (86°F)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
(Inlet water Temp. for PWFY side 23°C, Water flow rate 3.86m^3/h)

Unit converter

kcal / h =kW × 860
BTU / h =kW × 3,412
cfm =m^3 / min × 35.31
lbs =kg / 0.4536

* The specification data is subject to rounding variation.

* Due to continuing improvement, the above specifications may be subject to change without notice.
* The unit is not designed for outside installations.
* Please don't use the steel material for the water piping material.
* Please always make water circulate or add the brine to the circulation water when the ambient temperature becomes 0°C or less.
* Please always make water circulate or pull out the circulation water completely when not using it.
* Please do not use ground water and well water.
* Install the outdoor unit (R2-series) in an environment where the wet bulb Temp. will not exceed 32°C.
* The water circuit must use the closed circuit.
* Please do not use it as a drinking water.

ATW UNIT
HEX Unit
PWFY-P200VM-E1-AU

MAX 45°C
HOT WATER

Specifications

Model			PWFY-P200VM-E1-AU
Power source			1-phase 220-230-240V 50 / 60Hz
Heating capacity (Nominal)	*1	kW	25.0
	*1	kcal/h	21,500
	*1	BTU/h	85,300
	Power input	kW	0.015
	Current input	A	0.068-0.065-0.063
Temp. range of heating	Outdoor unit/ Heat source unit condition	W.B.	-
		W.B.	-20~15.5°C (-4~60°F) Y - series
		W.B.	-25~15.5°C (-13~60°F) HP(ZUBADAN) - series
		W.B.	-20~32°C (-4~90°F) R2 - series
		-	10~45°C (50~113°F) WY - series
		-	10~45°C (50~113°F) WR2 - series
	HEX unit inlet water temp.	-	10~40°C (50~104°F)
Cooling capacity (Nominal)	*2	kW	22.4
	*2	kcal/h	19,300
	*2	BTU/h	76,400
	Power input	kW	0.015
	Current input	A	0.068-0.065-0.063
Temp. range of cooling	Outdoor unit/ Heat source unit condition	D.B.	-5~46°C (23~115°F) Y - series
		D.B.	-5~43°C (23~110°F) HP(ZUBADAN) - series
		D.B.	-5~46°C (23~115°F) R2 - series
		-	10~45°C (50~113°F) WY - series
		-	10~45°C (50~113°F) WR2 - series
	HEX unit inlet water temp.	-	10~35°C (50~95°F)
Connectable outdoor unit/heat source unit	Total capacity		50~100% of outdoor unit/heat source unit capacity
	Model / Quantity		Y (Standard, Hi-COP), Replace Y, HP(ZUBADAN) series, R2 (Standard, Hi-COP), Replace R2, WY series, WR2 series
Sound pressure level (measured in anechoic room)		dB<A>	29
Diameter of refrigerant pipe	Liquid	mm(in.)	ø9.52 (ø3/8") Brazed
	Gas	mm(in.)	ø19.05 (ø3/4") Brazed
Diameter of water pipe	Inlet	mm(in.)	PT 1 Screw
	Outlet	mm(in.)	PT 1 Screw
Field drain pipe size		mm(in.)	ø32 (1-1/4")
External finish			NO
External dimension H × W × D		mm	800 (785 without legs) × 450 × 300
		in.	31-1/2" (30-15/16" without legs) × 17-3/4" × 11-13/16"
Net weight		kg(lbs)	38 (84)
Circulating water	Operation Volume Range	m^3/h	1.8~4.30
Design pressure	R410A	MPa	4.15
	Water	MPa	1.00
Drawing	External		KD94R274
	Wiring		WKE94C626
Standard attachment	Document		Installation Manual, Instruction Book
	Accessory		Strainer, Connecter, Heat insulation material, 2 × Connector sets, Expansion joint, Flow switch × 1 set, wire
Optional parts			Solenoid valve kit: PAC-SV01PW-E
Remark			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

Notes:

*1 Nominal heating conditions
<S/Y/HP(ZUBADAN)/R2-series>
Outdoor Temp. : 7°CDB/6°CWB (45°FDB / 43°FWB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
Inlet water Temp 30°C
Water flow rate 2.15m^3/h(P100), 4.30m^3/h(P200)

<WY/WR2-series>
Circulating water Temp. : 20°C (68°F)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
Inlet water Temp 30°C
Water flow rate 2.15m^3/h(P100), 4.30m^3/h(P200)

*2 Nominal cooling conditions
<Y/HP(ZUBADAN)/R2-series>
Outdoor Temp. : 35°CB (95°FDB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
Inlet water Temp 23°C
Water flow rate 1.93m^3/h(P100), 3.86m^3/h(P200)

<WY/WR2-series>
Circulating water Temp. : 30°C (86°F)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
Inlet water Temp 23°C
Water flow rate 1.93m^3/h(P100), 3.86m^3/h(P200)

* Due to continuing improvement, the above specifications may be subject to change without notice.
* The unit is not designed for outside installations.
* Please don't use the steel material for the water piping material.
* Please always make water circulate or add the brine to the circulation water when the ambient temperature becomes 0°C (32°F) or less.
* Please always make water circulate or pull out the circulation water completely when not using it.
* Please do not use groundwater and well water.
* Install the unit in an environment where the wet bulb Temp. will not exceed 32°C (90°F).
* The water circuit must use the closed circuit.
* Please do not use it as a drinking water.

ATW UNIT
Booster Unit
PWFY-P100VM-E-BU

MAX 70°C HOT WATER

▸ Specifications

Model			PWFY-P100VM-E-BU
Power source			1-phase 220-230-240V 50 / 60Hz
Heating capacity (Nominal)	*1	kW	12.5
	*1	kcal/h	10,800
	*1	BTU/h	42,700
	Power input	kW	2.48
	Current input	A	11.63-11.12-10.66
Temp. range of heating	Outdoor unit/Heat source unit condition	W.B.	-20~32°C (-4~90°F) R2-series
		-	10~45°C (50~113°F) WR2-series
	Booster unit inlet water temp.	-	10~70°C (50~158°F)
Connectable outdoor unit/heat source unit	Total capacity		50~100% of outdoor unit/heat source unit capacity
	Model / Quantity		R2 (Standard, Hi-COP), Replace R2, WR2 series only
Sound pressure level (measured in anechoic room)		dB<A>	44
Diameter of refrigerant pipe	Liquid	mm(in.)	ø9.52 (ø3/8") Brazed
	Gas	mm(in.)	ø15.88 (ø5/8") Brazed
Diameter of water pipe	Inlet	mm(in.)	PT3/4 Screw
	Outlet	mm(in.)	PT3/4 Screw
Field drain pipe size		mm(in.)	ø32 (1-1/4")
External finish			NO
External dimension H × W × D		mm	800 (785 without legs) × 450 × 300
		in.	31-1/2" (30-15/16" without legs) × 17-3/4" × 11-13/16"
Net weight		kg(lbs)	60 (133)
Compressor	Type		Inverter rotary hermetic compressor
	Maker		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	1.0
	Lubricant		NEO22
Circulating water	Operation volume Range	m^3/h	0.6~2.15
Protection on internal circuit (R134a)	High pressure protection		High pressure sensor, High pressure switch at 3.60 MPa (601 psi)
	Inverter circuit (COMP)		Over - heat protection, Over - current protection
	Compressor		Discharge thermo protection, Over - current protection
Refrigerant	Type × original charge *2		R134a × 1.1kg (0.50lb)
	Control		LEV
Design pressure	R410A	MPa	4.15
	R134a	MPa	3.60
	Water	MPa	1.00
Drawing	External		WKB94L762
	Wiring		WKE94C229
Standard attachment	Document		Installation Manual, Instruction Book
	Accessory		Strainer, Heat insulation material, 2 × Connector sets
Optional parts			NONE
Remark			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

Notes:

*1 Nominal heating conditions
<R2-series>
Outdoor Temp. : 7°CDB/6°CWB (45°FDB / 43°FWB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
Inlet water Temp 65°C Water flow rate 2.15m^3/h

<WR2-series>
Circulating water Temp. : 20°C (68°F)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0m (0ft)
Inlet water Temp 65°C Water flow rate 2.15m^3/h

*2 Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
- It may also be in violation of applicable laws.
- MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.

* Due to continuing improvement, the above specifications may be subject to change without notice.
* The unit is not designed for outside installations.
* Please don't use the steel material for the water piping material.
* Please always make water circulate or add the brine to the circulation water when the ambient temperature becomes 0°C (32°F) or less.
* Please always make water circulate or pull out the circulation water completely when not using it.
* Please do not use groundwater and well water.
* Install the unit in an environment where the wet bulb Temp. will not exceed 32°C (90°F).
* The water circuit must use the closed circuit.
* Please do not use it as a drinking water.

Controller
Remote Controller
PAR-W21MAA

▸ Specifications

○ : Each group　× : Not available

Item	Description	Operations	Display
ON / OFF	Runs and stops the operation of a group of units	○	○
Operation mode switching	Switches between Hot Water / Heating / Heating ECO / Anti - freeze / Cooling * Available operation modes vary depending on the unit to be connected. * Switching limit setting can be made via a remote controller.	○	○
Water temperature setting	Temperature can be set within the ranges below. (in increments of 1°C or 1°F) Heating 30°C ~ 50°C Heating ECO 30°C ~ 45°C Hot Water 30°C ~ 70°C Anti-freeze 10°C ~ 45°C Cooling 10°C ~ 30°C * The settable range varies depending on the unit to be connected.	○	○
Preset temperature range limit	Preset temperature range setting can be limited via a remote controller.	○	○
Water temperature display	10°C ~ 90°C (in increments of 1°C or 1°F) * The settable range varies depending on the unit to be connected.	×	○
Permit / Prohibit local operation	Individually prohibits operations of each local remote control function : ON / OFF, Operation modes, water temperature setting, Circulating water replacement warning reset. * Upper level controller may not be connected depending on the unit to be connected.	×	○
Schedule operation	ON / OFF / Water temperature setting can be done up to 6 times one day in the week. (in increments of a minute)	○	○
Error display	When an error is currently occurring on a unit, the afflicted unit and the error code are displayed.	×	○
Self check (Error history)	Searches the latest error history by pressing the CHECK button twice.	○	○
Test run	Enables the Test run mode by pressing the TEST button twice. * Test run mode is not available depending on the unit to be connected.	○	○
Circulating water replacement warning	Displays the circulating water replacement warning via the unit message. Clears the display by pressing the CIR.WATER button twice. * Circulating water replacement warning is not available depending on the unit to be connected.	○	○
Operation locking function	Remote controller operation can be locked or unlocked. · All-switch locking · Locking except ON / OFF switch	○	○

Optional Parts
Solenoid Valve Kit

Note:

If you intend to adopt PWFY-AU with below system configuration, you may need to use optional part (PAC-SV01PW-E).
Please contact your Mitsubishi Electric sales office for details.

Applicable System

System Configuration
Y, HP(ZUBADAN), Replace Y, or WY* + PWFY-AU + Indoor Unit

*Solenoid valve kit will be used only when operating the WY at the water temperature below 10°C.

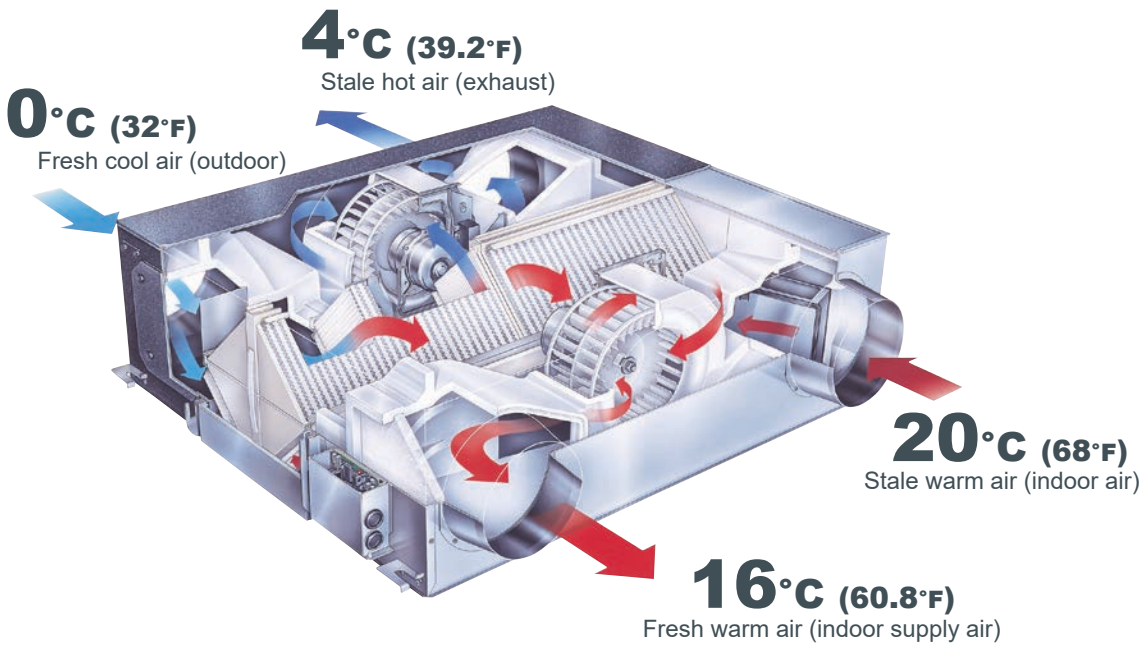
PAC-SV01PW-E

Item			Description	
Power source			1-phase 220-230-240V 50 / 60Hz	
Diameter of refrigerant pipe	Applicable models		PWFY-P100VM-E1-AU	PWFY-P200VM-E1-AU
	Liquid	mm (in.)	ø15.88	ø19.05
	Gas	mm (in.)	ø9.52	ø9.52
External dimension H × W × D		mm	462 × 320 × 207	
		in.	18-1/4" × 12-5/8" × 8-3/16"	
Net weight		kg (lbs)	8.5 (19)	
Drawing	External		WKD94T532	
Standard attachment	Document		Installation Manual	
	Accessory		Specification label, Refrigerant conn.pipe	

RVX SERIES
Energy Recovery Ventilators

The Ventilation System for Enhanced Air Quality - Lossnay

Combine with Lossnay Ventilation System for enhanced air quality.
Unified Control System allows for greater design freedom.



LGH-15RVX [150m^3/h Single phase 220-240V 50Hz]
LGH-25RVX [250m^3/h Single phase 220-240V 50Hz]
LGH-35RVX [350m^3/h Single phase 220-240V 50Hz]
LGH-50RVX [500m^3/h Single phase 220-240V 50Hz]
LGH-65RVX [650m^3/h Single phase 220-240V 50Hz]
LGH-80RVX [800m^3/h Single phase 220-240V 50Hz]
LGH-100RVX [1000m^3/h Single phase 220-240V 50Hz]
LGH-150RVX [1500m^3/h Single phase 220-240V 50Hz]
LGH-200RVX [2000m^3/h Single phase 220-240V 50Hz]

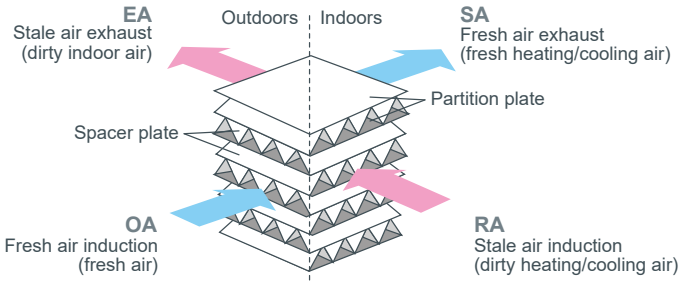
Heat-exchange efficiency obtainable only with Lossnay.

The secret to the unmatched comfort provided by Lossnay core is the cross-flow, plate-fin structure of the heat-exchange unit. A diaphragm made of a specially processed paper fully separates inducted and exhausted air supplies, ensuring that only fresh air is introduced to the indoor environment.
The superior heat-transfer and moisture permeability of the special paper assures highly effective total heat-exchange (temperature and humidity) when inducted and exhausted air supplies cross in the Lossnay core.

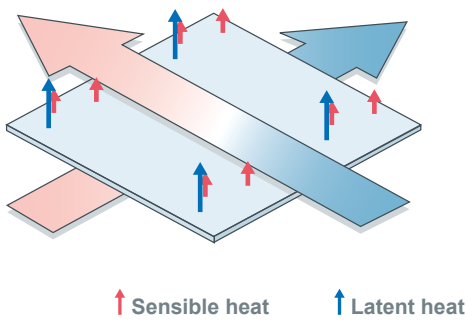
LOSSNAY Technology

- **Two paths ventilation**
  LOSSNAY simultaneously intakes Fresh Air and exhausts Dirty Air.
- **Total energy recovery**
  LOSSNAY returns BOTH sensible heat and latent heat.

A. Two paths ventilation

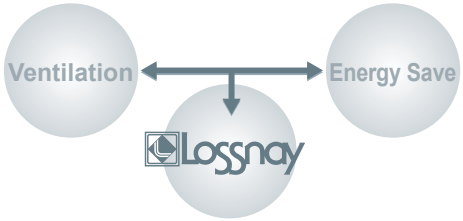


B. Total energy transfer



Why LOSSNAY is necessary

- A lack of ventilation makes people sick from stale indoor air including CO_2, dust and bacteria
- Opening windows eliminates the stale air, but wastes air-con energy
- **So we recommend LOSSNAY**
  LOSSNAY simultaneously acheives ventilation and energy saving

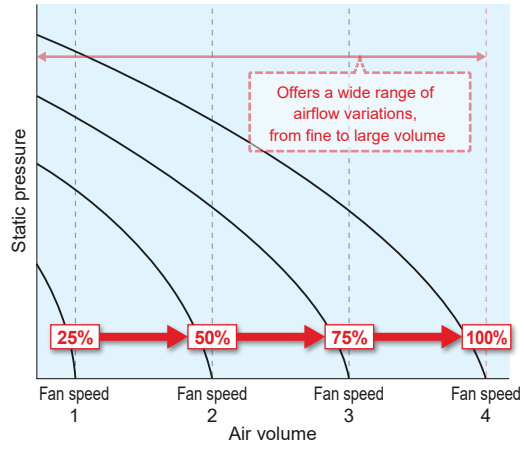


Wide range air volume

The new RVX Lossnay is equipped with four fan speeds. In addition, each speed has a range setting of 25, 50, 75 and 100%, allowing much finer air volume control.

When used in combination with the CO_2 sensor or timer function, the air volume can be controlled according to conditions that realise better performance and reduce power consumption.

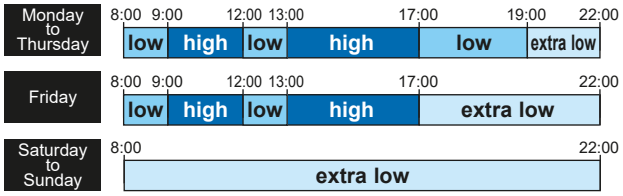
RVX characteristic curves



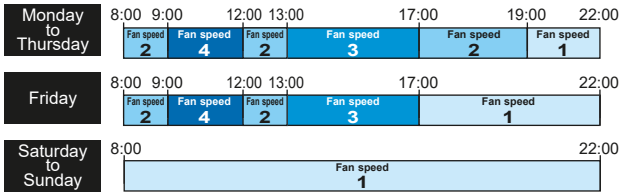
Weekly timer

The operation pattern for each day of the week, ON / OFF and air volume can be set using the weekly timer function (up to eight zones per day). Compared to previous models, much finer operation control contributes to enhanced energy saving operation. With a wider range of air volumes the Lossnay RVX units enable optimised ventilation not just at different times of the day, but for different days of the week as well, enabling further energy savings.

Previous model

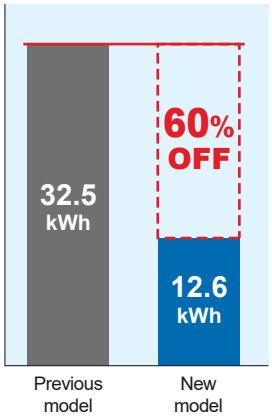


New model



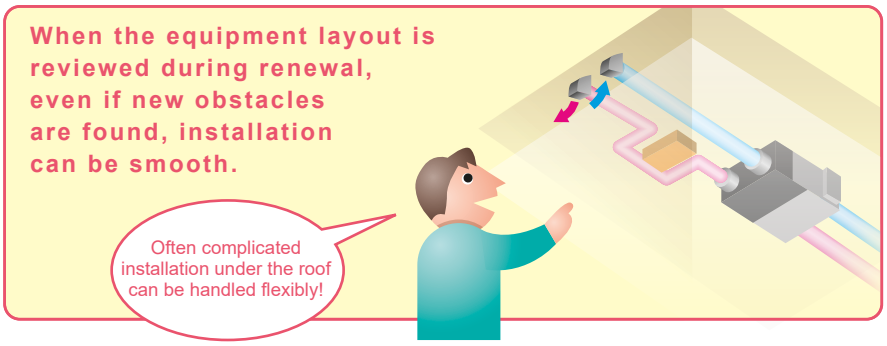
* Comparison of LGH-100R and LGH-100RVX

Total power consumption in a week



Improved external static pressure

External static pressure has been improved in the new RVX models. By increasing the external static pressure, highly flexible duct work becomes possible, thus renewal from existing equipment is easy.

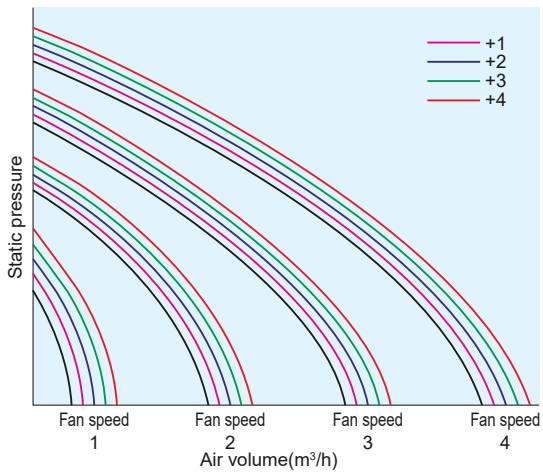


Fan speed adjustment function

The default fan speed value can be adjusted slightly. Using the PZ-61DR-E remote controller to reset the speed.

1) Considering the total hours of Lossnay operation (filter clogging), the fan power can be adjusted automatically after a given period of time.
2) After the unit is installed, if the air volume is slightly lower than the desired airflow, it is possible to make fine adjustments.

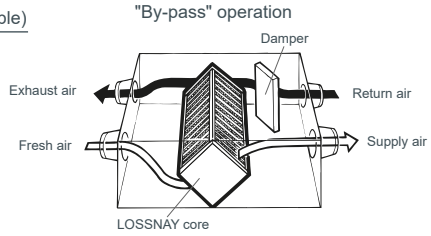
P-Q curve image



"By-pass" Ventilation External Control Setting

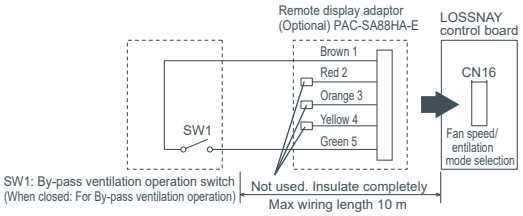
In addition to the automatic damper open/close function, open/close control via external devices is possible, delivering a “By-pass” ventilation system that is suitable to the installed environment.

Control devices (example)
- Temperature sensor
- Humidity sensor
- Timers



Establish the wire connection by inserting the optional remote display adaptor (PAC-SA88HA-E) in the connector CN16 (Ventilation mode selector).

When SW1 is “ON”, the ventilation mode of LOSSNAY is changed to the By-pass ventilation regardless of the setting on the remote controller.



•Automatic ventilation setting

The automatic damper mode automatically provides the correct ventilation for the conditions in the room. The following shows the effect “By-pass” ventilation will have under various conditions.

1. Reduces cooling load

If the air outside is cooler than the air inside the building during the cooling season (such as early morning or at night), “By-pass” ventilation will draw in the cooler outside air and reduce the cooling load on the system.

2. Night purge

“By-pass” ventilation can be used to release hot air from inside the building that accumulates in buildings during the hot summer season.

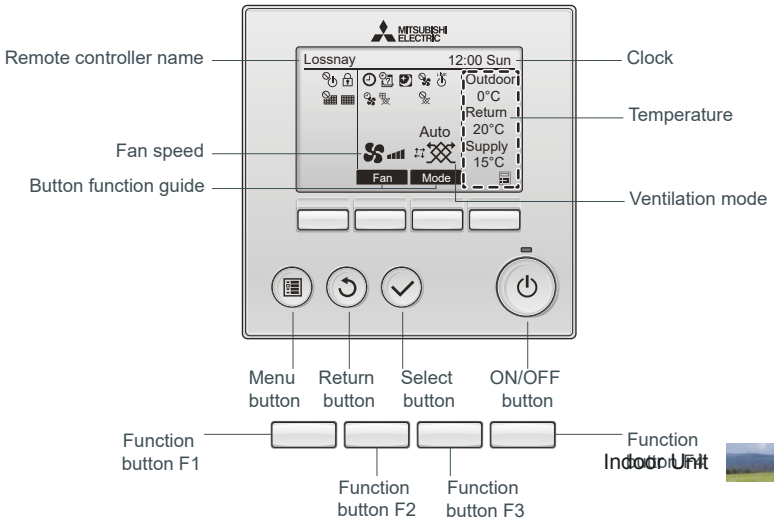
3. Office equipment room cooling

During the cold season, fresh air can be drawn in and used to cool rooms where the temperature has risen due to the use of office equipment.

* When the outdoor air tempereture drops lower than 8°C it changes to the heat exchange ventilation. (Display of the remote controller does not change.)
* In the case of “By-pass” ventilation, the supply air temperature slightly rises more than the outside air temperature because of the heat effect around the ducts or the unit motors.

Controller PZ-61DR-E

In addition to boosting the energy conservation performance of the main unit, the remote controller features a variety of functions which also allows for additional energy conservation.
The appearance of the remote controller conforms to the latest Mitsubishi Electric air conditioner interface design standards.
Functions that were set using Dip-Switch on the LOSSNAY main unit can be configured as needed using the new remote controller. This eliminates the need to crawl under the eaves to change operation settings.
Also, a newly adopted LCD backlit display provides much more information, making it easy to check maintenance indications, operation status display, and explanations required when configuring settings.



Specifications

Model line-up

LGH-15~100RVX-E

Model		LGH-15RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		0.40	0.24	0.15	0.10	0.41	0.25	0.15	0.10
Input power (W)		49	28	14	7	52	28	14	8
Air volume	(m^3/h)	150	113	75	38	150	113	75	38
	(L/s)	42	31	21	10	42	31	21	10
External static pressure (Pa)		95	54	24	6	95	54	24	6
Temperature exchange efficiency (%)		80.0	81.0	83.0	84.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	73.0	75.5	78.0	79.0	—	—	—	—
	Cooling	71.0	74.5	78.0	79.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		28.0	24.0	19.0	17.0	29.0	24.0	19.0	18.0
Weight (kg)		20							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 13dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.

Model		LGH-25RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		0.48	0.28	0.16	0.10	0.48	0.29	0.16	0.11
Input power (W)		62	33	16	7.5	63	35	17	9
Air volume	(m^3/h)	250	188	125	63	250	188	125	63
	(L/s)	69	52	35	17	69	52	35	17
External static pressure (Pa)		85	48	21	5	85	48	21	5
Temperature exchange efficiency (%)		79.0	80.0	82.0	86.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	69.5	72.0	76.0	83.0	—	—	—	—
	Cooling	68.0	70.0	74.5	83.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		27.0	22.0	20.0	17.0	27.5	23.0	20.0	17.0
Weight (kg)		23							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 15dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.

Model		LGH-35RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		0.98	0.54	0.26	0.12	0.98	0.56	0.28	0.13
Input power (W)		140	70	31	11	145	72	35	13
Air volume	(m^3/h)	350	263	175	88	350	263	175	88
	(L/s)	97	73	49	24	97	73	49	24
External static pressure (Pa)		160	90	40	10	160	90	40	10
Temperature exchange efficiency (%)		80.0	82.5	86.0	88.5	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	71.5	74.0	78.5	83.5	—	—	—	—
	Cooling	71.0	73.0	78.0	82.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		32.0	28.0	20.0	17.0	32.5	28.0	20.0	18.0
Weight (kg)		30							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 12dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.

LGH-15~100RVX-E

Model		LGH-50RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		1.15	0.59	0.26	0.13	1.15	0.59	0.27	0.13
Input power (W)		165	78	32	12	173	81	35	14
Air volume	(m^3/h)	500	375	250	125	500	375	250	125
	(L/s)	139	104	69	35	139	104	69	35
External static pressure (Pa)		120	68	30	8	120	68	30	8
Temperature exchange efficiency (%)		78.0	81.0	83.5	87.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	69.0	71.0	75.0	82.5	—	—	—	—
	Cooling	66.5	68.0	72.5	82.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		34.0	28.0	19.0	18.0	35.0	29.0	20.0	18.0
Weight (kg)		33							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 18dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.

Model		LGH-65RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		1.65	0.90	0.39	0.15	1.72	0.86	0.38	0.16
Input power (W)		252	131	49	15	262	131	47	17
Air volume	(m^3/h)	650	488	325	163	650	488	325	163
	(L/s)	181	135	90	45	181	135	90	45
External static pressure (Pa)		120	68	30	8	120	68	30	8
Temperature exchange efficiency (%)		77.0	81.0	84.0	86.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	68.5	71.0	76.0	82.0	—	—	—	—
	Cooling	66.0	69.5	74.0	81.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		34.5	29.0	22.0	18.0	35.5	29.0	22.0	18.0
Weight (kg)		38							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 16dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.

Model		LGH-80RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		1.82	0.83	0.36	0.15	1.97	0.86	0.40	0.15
Input power (W)		335	151	60	18	340	151	64	20
Air volume	(m^3/h)	800	600	400	200	800	600	400	200
	(L/s)	222	167	111	56	222	167	111	56
External static pressure (Pa)		150	85	38	10	150	85	38	10
Temperature exchange efficiency (%)		79.0	82.5	84.0	85.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	71.0	73.5	78.0	81.0	—	—	—	—
	Cooling	70.0	72.5	78.0	81.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		34.5	30.0	23.0	18.0	36.0	30.0	23.0	18.0
Weight (kg)		48							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 24dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.
*Use this unit with static pressure 240Pa or less at Fan speed 4. Otherwise the noise level might be larger.

LGH-15~100RVX-E

LGH-150/200RVX-E

Model		LGH-100RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		2.50	1.20	0.50	0.17	2.50	1.20	0.51	0.19
Input power (W)		420	200	75	21	420	200	75	23
Air volume	(m^3/h)	1000	750	500	250	1000	750	500	250
	(L/s)	278	208	139	69	278	208	139	69
External static pressure (Pa)		170	96	43	11	170	96	43	11
Temperature exchange efficiency (%)		80.0	83.0	86.5	89.5	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.5	74.0	78.0	87.0	—	—	—	—
	Cooling	71.0	73.0	77.0	85.5	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		37.0	31.0	23.0	18.0	38.0	32.0	24.0	18.0
Weight (kg)		54							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 21dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.
*Use this unit between static pressure 60Pa and 240Pa at Fan speed 4. Otherwise the motor protection may work and reduce its output or the noise level might be larger.

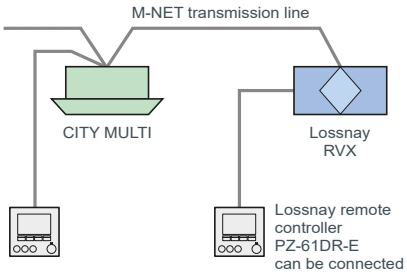
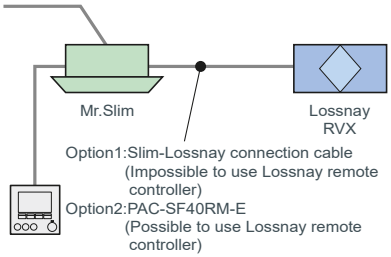
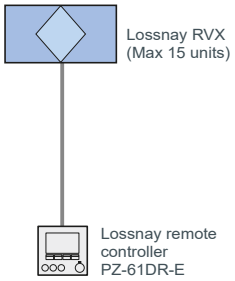
Model		LGH-150RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		3.71	1.75	0.70	0.29	3.85	1.78	0.78	0.30
Input power (W)		670	311	123	38	698	311	124	44
Air volume	(m^3/h)	1500	1125	750	375	1500	1125	750	375
	(L/s)	417	313	208	104	417	313	208	104
External static pressure (Pa)		175	98	44	11	175	98	44	11
Temperature exchange efficiency (%)		80.0	82.5	84.0	85.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.0	73.5	78.0	81.0	—	—	—	—
	Cooling	70.5	72.5	78.0	81.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		39.0	32.0	24.0	18.0	40.5	33.0	26.0	18.0
Weight (kg)		98							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 22dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.
*Use this unit with static pressure 250Pa or less at Fan speed 4. Otherwise the noise level might be larger.

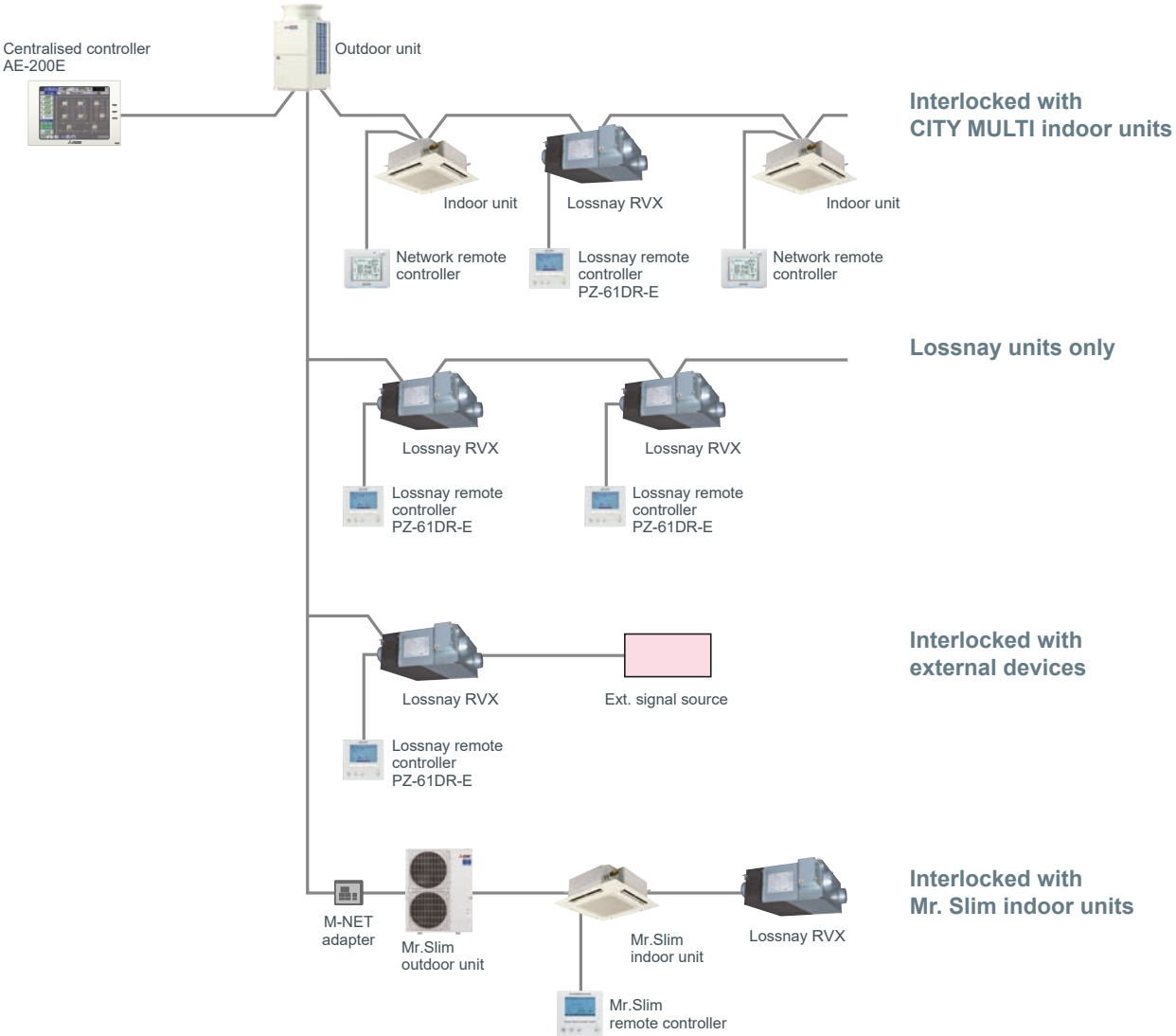
Model		LGH-200RVX-E							
Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		4.88	2.20	0.88	0.33	4.54	2.06	0.87	0.35
Input power (W)		850	400	153	42	853	372	150	49
Air volume	(m^3/h)	2000	1500	1000	500	2000	1500	1000	500
	(L/s)	556	417	278	139	556	417	278	139
External static pressure (Pa)		150	84	38	10	150	84	38	10
Temperature exchange efficiency (%)		80.0	83.0	86.5	89.5	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.5	74.0	78.0	87.0	—	—	—	—
	Cooling	71.0	73.0	77.0	85.5	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of unit in an anechoeic chamber)		40.0	36.0	28.0	18.0	41.0	36.0	27.0	19.0
Weight (kg)		110							

*The Air outlets noise (45 angle, 1.5meters in front of the unit) is about 21dB greater than the indicated value. (at Fan speed 4)
*The running current, the input power, the efficiency and the noise are based on the rating air volume, and 230V/50Hz.
*For the specification at the other frequency contact your dealer.
*Use this unit between static pressure 50Pa and 220Pa at Fan speed 4. Otherwise the motor protection may work and reduce its output or the noise level might be larger.

The Remote Controller PZ-61DR-E enables simple control setting

Interlocked with Air conditioners		LOSSNAY independent
Interlocked with CITY MULTI	Interlocked with Mr.Slim	
 (PZ-43SMF-E can be connected however function is limited.)		 (PZ-43SMF-E can be connected however function is limited.)

Centralised Controller System



VL-100EU5-E Wall switch type

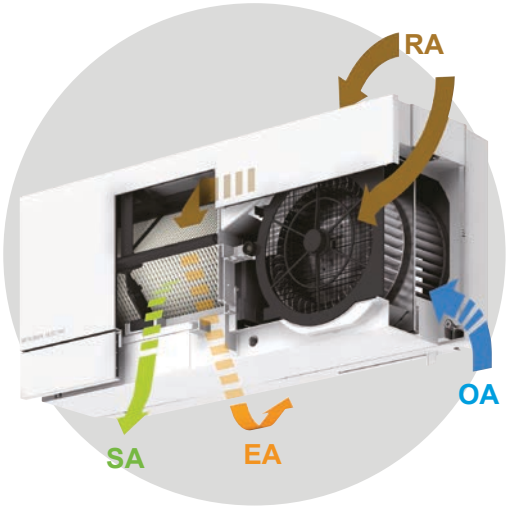
NEW

Energy Recovery Ventilator

Enjoy the benefits of Lossnay Heat Recovery Ventilation in a wall mounted unit.

Energy Saving
Reduced heat loss contributes to lower air conditioning costs.

Fresh Air
Simultaneous air supply/exhaust function ensures efficient ventilation.

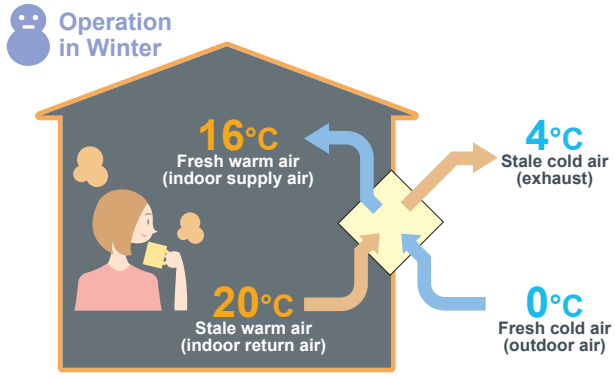


Quiet Operation
Equipped with sound insulation for even quieter operation.

Simple Installation
Easy installation through boring of 2 installation holes.

Stylish Design
Designed to match any interior decor.

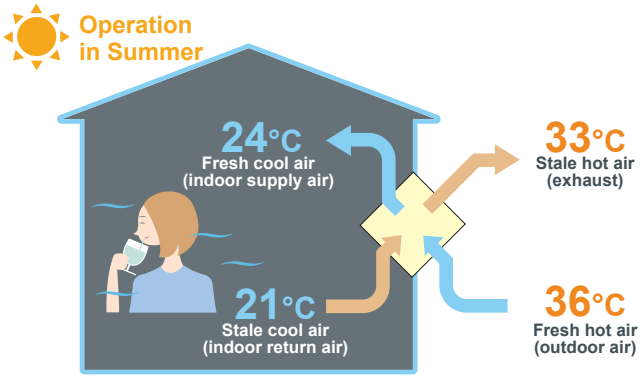
Total-Heat-Exchange Concept



•Heat-exchange Temp. equation

Indoor supply-air temperature(°C) = {Indoor temperature(°C) - Outdoor temperature(°C)} x Temp exchange efficiency(%) + Outdoor temperature(°C)

Calculation example : 16°C = (20°C - 0°C) x 80% + 0°C (Low fan speed)



•Heat-exchange Temp. equation

Indoor supply-air temperature(°C) = Outdoor temperature(°C) - {Outdoor temperature(°C) - Indoor temperature(°C)} x Temp exchange efficiency(%)

Calculation example : 24°C = 36°C - (36°C - 21°C) x80% (Low fan speed)

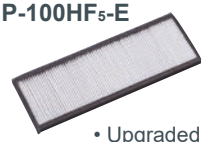
Specification

- •Simple installation through boring of 2 installation holes.
- •Low-noise (Less than 30dB at low fan speed).
- •1-motor 2-fan system. •Air-volume:low/high fan speeds.
- •Air-supply/exhaust pipes and a plastic weather cover are included.
- •Equipped with an outdoor-air shutter.
- •Wall-switch (VL-100EU5-E)

Supply voltage (V)	Power line frequency (Hz)	Fan speed	Air volume (m^3/h)	Power consumption (W)	Temp.exchange efficiency (%)	Noise (dB)	Weight (kg)
230	50	HI	105	31	73	37	7.5
		LO	60	15	80	25	

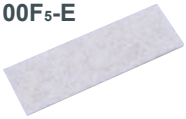
Optional Parts

High-performance filter
P-100HF5-E



• Upgraded high-performance filter.

Replacement filter
P-100F5-E



• Standard grade replacement filter.

VD Series – High Efficiency Low Noise Ducted Exhaust Fans

Mitsubishi Electric Ducted Exhaust Fans are specifically designed to quickly and efficiently remove moisture and odours in the quietest way possible. They are ideal for areas that are typically exposed to higher levels of moisture such as laundries, bathrooms and toilets.

From 30dBA
VD-15Z

Key Features

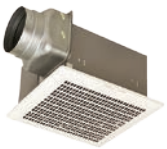
- Quiet, low vibration operation (from 30dBA*)
- Centrifugal fan with long-life ball bearing motor
- Energy efficient for increased power savings
- Stylish design that blends well with surroundings
- Dual airtight shutters block external noise and outside air

*VD-15Z

Plastic Grille
VD-10Z

Plastic Grille
VD-15Z

Plastic Grille
VD-15ZP



Metal Grille
VD-18Z/20Z

Specification Table

Model	Current (A)	Power (W)	Frequency (Hz)	RPM	Air Volume (l/s) / (m^3/h)	Noise (dBA)	Weight (kg)
VD-10Z	0.05	10	50	950	29 / 105	32	2.2
VD-15Z	0.06	13	50	725	47 / 169	30	3.4
VD-15ZP	0.08	18	50	900	62 / 223	36	3.4
VD-18Z	0.16	34	50	620	98 / 353	37	5.8
VD-20Z	0.21	46	50	730	122 / 439	41	6.5

Air volume at ØPa.

Dimension Table

Model	Fan (excluding spigot)			Grille Type				Duct
	W (mm)	D (mm)	H (mm)	Type	W (mm)	D (mm)	H (mm)	Dia (mm)
VD-10Z	171	171	172	Plastic	250	250	20	100
VD-15Z	251	251	200	Plastic	330	330	20	100
VD-15ZP	251	251	200	Plastic	330	330	20	100
VD-18Z	270	270	243	Metal	334	334	15	150
VD-20Z	307	307	243	Metal	380	380	15	150

Mitsubishi Electric Ducted In-Line Fans

Sturdy, quiet and reliable, the Mitsubishi Electric range of In-Line Fans are the ideal ventilation solution for a wide range of commercial and domestic applications including living rooms, toilets, changing rooms, offices, and as a heat transfer system. Low operation noise, high volume air extraction and energy efficient air displacement are the result of an enhanced air duct design developed by engineers for the In-Line Fan range.

Quietest In-line Fan Range in NZ![†] - High Airflow with Low Noise

The centrifugal In-Line Fan features an advanced air duct design, allowing air to be distributed evenly either side of the fan. This innovative design feature reduces the noise level of the unit, ensuring that even whilst maintaining a high air flow rate, the In-Line Fan is able to operate at a super-quiet 18.5 dBA*. Sitting between ductwork, the In-Line Fan can be installed away from the extraction point, further decreasing noise heard by the occupant; ideal for areas with limited space above the extraction point and for noise-sensitive environments such as meetings rooms, libraries and living rooms.

Versatile and Sturdy Design

Equipped with adjustable mounting brackets and removable duct spigots, installations are both convenient and versatile. The sturdy design of the unit provides options for both roof cavity and ceiling exposed mounting.

Key Features

- High airflow, quiet operation
- Adjustable/removable mounting brackets
- Two speed selectable
- Galvanised steel casing
- Removable cover for easy maintenance
- All models are less than 260mm in height
- Quick connect power terminal
- Removable duct spigots
- Wool glass noise absorption pads*
- Low power consumption

*V-18ZMWP-E only

Model	Rated Voltage (V)	Frequency Notch (Hz)		Rated Current (A)	Power Consumption (W)	Airflow Rate (l/s / m³/h)	Noise (dBA)	Vane Diameter (mm)	Connecting Duct (mm)	Weight (kg)
V-15ZMW-E	230	50	High	0.11	26	58 / 212	22	Ø 150	Ø 100	6
			Low	0.10	18	44 / 160	18.5			
V-15ZMWP-E	230	50	High	0.21	47	94 / 340	28	Ø 150	Ø 150	6
			Low	0.18	33	79 / 285	25			
V-18ZMW-E	230	50	High	0.28	64	143 / 515	32	Ø 180	Ø 150	8.5
			Low	0.24	36	105 / 380	27			
V-18ZMWP-E	230	50	High	0.47	105	215 / 775	33	Ø 180	Ø 200	9.5
			Low	0.46	84	184 / 665	31			

Airflow rates exclude ducting. Please refer to the static pressure fan curve.

*V-15ZMW-E
†Measured at 1.5m from the side of the unit: Ducting attached

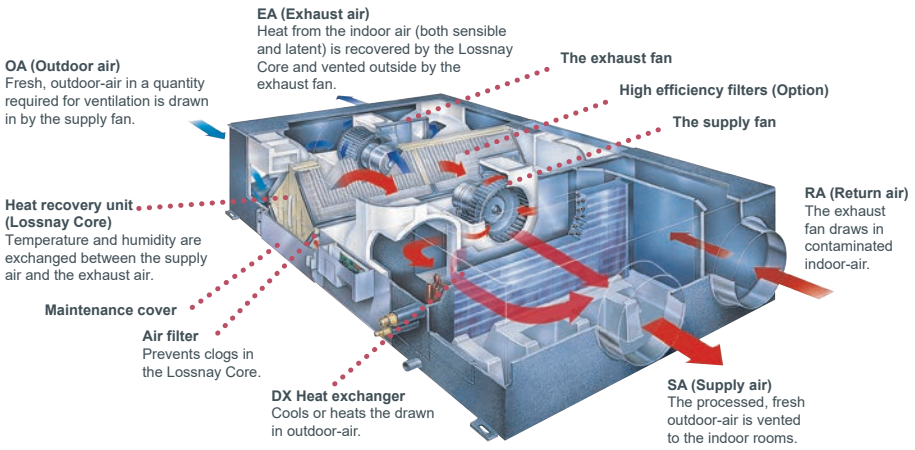
OA Processing Units

RD4 Series

A Total Air Conditioning Package for Remarkable Power

Lossnay Ventilation and Air Conditioning
1. When the load is light ⇒ Main air conditioning
2. When the load is heavy ⇒ Supplemental air conditioning

The OA (Outdoor-Air) Processing Unit creates an optimum environment while providing substantial energy savings. The OA Processing Unit comprises forced air ventilation, heat recovery, heating and cooling, and air purification. This total air conditioning system keeps indoor air fresh and comfortable all year round and keeps it free of contaminants, preventing ailments such as sick building syndrome. Inside the OA Processing Unit is the Lossnay Core, a heat-exchange unit that transfers heat efficiently, cutting ventilation load by as much as 70%. A remarkable product found nowhere else, this special combination of functionality and performance contained within a single unit ensures users ample comfort, good health, and energy savings.

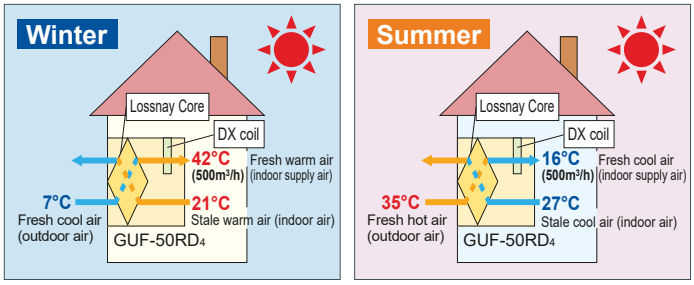


The Air Conditioning Function

Two Units in One

Along with Lossnay ventilation, the OA Processing Unit is really two units in one, functioning as the main air conditioner when the load is light and adding supplemental air conditioning when the load is heavy. Also, with ventilation and air conditioning integrated, space is saved and installation expense kept to a minimum. What's more, the air temperature in any room can be perfectly adjusted to the desired temperature of the occupants via the OA Processing Unit, which can be used as the indoor unit of the CITY MULTI air conditioning system. The heat recovery function maximises efficiency and saves energy, benefiting the environment and helping companies cut costs. It also reduces the refrigerant load and lowers the amount of horsepower required by the outdoor unit.

Temperature simulation (Example : GUF-50RD4)



Specification NEW

Model			GUF-50RD4	GUF-100RD4
Power source			1-phase 220-240V 50Hz	
Cooling capacity *1		kW	5.57 <1.94>	11.44 <4.12>
Figure in < > is the recovery *1		kcal / h	4,800 <1,650>	9,800 <3,500>
capacity by LOSSNAY core. *1		BTU / h	19,000 <6,600>	39,000 <14,000>
*3	Power input	kW	235-265	480-505
*3	Current input	A	1.15	2.20
Heating capacity *2		kW	6.21 <2.04>	12.56 <4.26>
Figure in < > is the recovery *2		kcal / h	5,340 <1,750>	10,800 <3,650>
capacity by LOSSNAY core. *2		BTU / h	21,200 <7,000>	42,850 <14,450>
*3	Power input	kW	235-265	480-505
*3	Current input	A	1.15	2.20
Capacity equivalent to indoor unit			P32	P63
Humidifying capacity		kg / h	—	—
		lbs / h	—	—
	Humidifier		Permeable film humidifier	—
External finish			Galvanized, with grey insulation sheet	
External dimension H x W x D		mm	317 x 1,016 x 1,288	398 x 1,231 x 1,580
		in.	12-1/2 x 40 x 50-3/4	15-11/16 x 48-1/2 x 62-1/4
Net weight		kg (lbs)	48 (106)	82 (181)
Heat exchanger	LOSSNAY core		Partition, Cross-flow structure, Special preserved paper-plate.	
	Refrigerant coil		Cross fin (Aluminum fin and copper tube)	
FAN	Type x Quantity		SA: Centrifugal fan (Sirocco fan) x 1	
			EA: Centrifugal fan (Sirocco fan) x 1	
	External static press. *4	Pa	140	140
		mmH_2O	14.3	14.3
	Motor type		Totally enclosed capacitor permanent split-phase induction motor, 4 poles, 2units	
	Motor output	kW	—	—
	Driving mechanism		Direct-driven by motor	
	Airflow rate (High value)	m^3 / h	500	1,000
		L / s	139	278
		cfm	294	589
Sound pressure level (Low-High) (measured in anechoic room) *3		dB <A>	33.5-34.5	38-39
Insulation material			Polyester sheet	
Air filter	Supplying air		Non-woven fabrics filter (Gravitational method 82%) & Optional part: High efficiency filter (Colorimetric method 65%)	
	Exhausting air		Non-woven fabrics filter (Gravitational method 82%)	
Protection device			Fuse	
Refrigerant control device			LEV	
Connectable outdoor unit			R410A CITY MULTI	
Diameter of refrigerant pipe	Liquid	mm (in.)	ø6.35 (ø1/4) Flare	ø9.52 (ø3/8) Flare
	Gas	mm (in.)	ø12.7 (ø1/2) Flare	ø15.88 (ø5/8) Flare
Field drain pipe size		mm (in.)	Socket (I.D. 32mm (1-1/4))+O.D. 32mm (1-1/4)	

Notes:

*1 Nominal cooling conditions
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB)
Outdoor : 35°CDB (95°FDB)

*2 Nominal heating conditions
Indoor : 20°CDB (68°FDB)
Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)

*3 The values are measured at the rated external static pressure.

*4 The figure in < > indicates the value when external static pressure is changed.

Air Handling Unit Controller

PAC-AH-M-J

The Air Handling Unit Controller is an interface to allow connection to third party manufacturers equipment.

Mitsubishi Electric City Multi outdoor units are used with this interface box, creating an ideal solution when a unique air handling unit is required. The Air Handling Unit Controllers are supplied with LEV expansion device(s).

- Discharge or return air temperature control
- Temperature set point by control 0-10VDC
- Auto mode available for ease of application
- Error input
- IP2x rated (only for internal use)

R410A

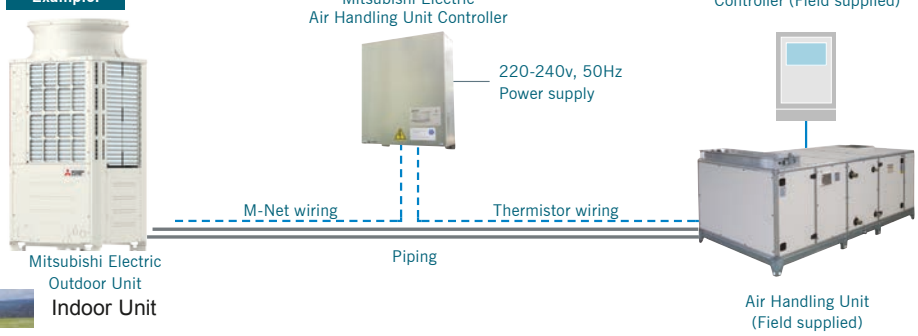
PAC-AH-M-J - AHU Controller

MODEL REFERENCE		PAC-AH125M-J	PAC-AH125M-J	PAC-AH140M-J	PAC-AH250M-J	PAC-AH250M-J	PAC-AH500M-J	PAC-AH500M-J
AIR HANDLING UNIT SIZE		P100	P125	P140	P200	P250	P400*2	P500*2
ALLOWED HEAT EXCHANGER CAPACITY (KW) - HEATING (MIN/MAX)		10.0 - 12.5	12.5 - 16.0	16.0 - 18.0	18.0 - 25.0	25.0 - 31.5	40.0 - 50.0	50.0 - 63.0
ALLOWED HEAT EXCHANGER CAPACITY (KW) - COOLING (MIN/MAX)		9.0 - 11.2	11.2 - 14.0	14.0 - 16.0	16.0 - 22.4	22.4 - 28.0	36.0 - 45.0	45.0 - 56.0
ALLOWED HEAT EXCHANGER VOLUME (CM^3)		1500 - 2850	1900 - 3550	2150 - 4050	3000 - 5700	3750 - 7100	6000 - 11400	7500 - 14200
REFERENCE AIR FLOW RATE (M3/H)*3		2000	2500	3000	4000	5000	8000	10000
STANDARD EVAPORATOR PATH NUMBER*1		4 - 5	4 - 5	5 - 6	6 - 10	8 - 10	16 - 20	16 - 20
DIMENSIONS (MM)	WIDTH	328	328	328	328	328	328	328
( ) = INC MOUNTINGS	DEPTH	104 (122)	104 (122)	104 (122)	104 (122)	104 (122)	104 (122)	104 (122)
	HEIGHT	378 (420)	378 (420)	378 (420)	378 (420)	378 (420)	378 (420)	378 (420)
WEIGHT (KG)		5	5	5	5	5	5	5
PIPE SIZE (MM)	GAS	15.88	15.88	15.88	19.05	22.22	28.58	28.58
	LIQUID	9.52	9.52	9.52	9.52	9.52	12.7	15.88

Note: One air handling unit controller is required per air handling unit. Saturated refrigerant temperature at exit of evaporator = 8.5ºC, SH = 5K, liquid temperature = 25ºC, air = 27ºCDB/19ºCWB.
*1 When the diameter of the heat exchanger tube is ø9.52.
*2 P400 and P500 are not compatible with PURY and PQRY.
*3 If using in combination with standard indoor units, then these figures do not apply.

APPLICABLE OUTDOOR UNITS	
PUHY-P Y(S)NW-A	PURY-P Y(S)NW-A
PUHY-EP Y(S)NW-A	PURY-EP Y(S)NW-A
PUHY-HP Y(S)HM-A	PQRY-P Y(S)LM-A
PQHY-P Y(S)LM-A	

Example:



Remote Controller

- Individual Remote Controller
- Centralised Remote Controller

The Importance of Control

The need for control is paramount in order to optimise the performance of any air conditioning system and minimise its running costs. Mitsubishi Electric offers a wide range of control options designed to meet such needs.

Operating an air conditioning system without the right control can prove costly. It's therefore important to ensure that every system is correctly specified to the degree of control it requires. Mitsubishi Electric have a wide range of controls available 'off-the-shelf' and individual control systems can be specifically designed to match.

Good controls will benefit any application, large or small. Air conditioning products need to react to a variety of factors: different room sizes, usage and staff levels; changes in the climate; electronic equipment and lighting...the list goes on. So whatever the application, optimum control of air conditioning systems is essential and will result in a constant, comfortable environment, which in turn is both energy and cost efficient.

A Degree of Difference

When an air conditioning system is not properly controlled, it will not run as efficiently as it should. For every degree that the system deviates from the required temperature, energy costs can rise by up to 5%. Specify one of the many control options from Mitsubishi Electric to ensure air conditioning works as intended, whilst giving the optimum amount of control.

The Simpler, The Better

With the array of comprehensive control systems available from Mitsubishi Electric, it becomes simple to design and install air conditioning systems. From a simple hand-held controller to an AE-200E system - you are in control.

System Controller

MITSUBISHI ELECTRIC's Air conditioner Network System (MELANS) leads air conditioner management in a PC browser and Network era.

MELANS

Use of our MELANS products enhances EFFICIENCY and QUALITY of air conditioning, contributing to ENERGY SAVING and reduction in running cost. We offer a wide variety of MELANS products to meet all requirements - from the smallest and simplest to the largest and most complex.
We have individual remote controllers, various centralised controllers, and centralised integrated software, as well as BMS interface hardware and software etc. Above all, with AE-200E, PC browser and long distance remote control (monitoring and operating) via communication Network is possible and easy.

M-NET

Individual Remote Controller

All of the local remote controllers feature liquid crystal and LED displays and are easy to operate.

Remote Controller
- PAR-32MAA
- PAR-U02MEDA

Simple Remote Controller
- PAC-YT52CRA
- NEW PAC-CT01MAA

Wireless Remote Controller
- PAR-FL32MA
- PAR-FA32MA
- PAR-SA9FA-E
- PAR-SL94B-E

Centralized Remote Controller

Advanced Touch Controller
- AT-50B

ON/OFF Remote Controller
- PAC-YT40ANRA

AE-200E/AE-50E

EW-50E

AHC ADAPTER
- PAC-IF01AHC-J *1

PI Controller
- PAC-YG60MCA

DIDO Controller
- PAC-YG66DCA

AI Controller
- PAC-YG63MCA

*1. Advanced HVAC CONTROLLER

CITY MULTI

OUTDOOR UNIT
- S : PUMY
- Y : PUHY
- R2 : PURY
- WY : PQHY
- WR2 : PQRY

INDOOR UNIT
- PEFY
- PMFY
- PLFY
- PCFY
- PKFY
- PFFY

Interface
- LMAP04-E

Interface
- BAC-HD150

- MelcoBEMS

Air Conditioning Control System

This is a specialised air conditioning management system, in which up to 2000 indoor units can be centrally controlled.

Integrated centralized control software TG-2000A

Integrated centralised control software TG-2000A

LONWORKS® transmission line

BACnet® transmission line (Ethernet)

MITSUBISHI ELECTRIC's CITY MULTI can be easily connected to the building management system through BACnet®.

BUILDING MANAGEMENT SYSTEM

Ethernet

BACnet® MS/TP MODBUS

*Some controllers cannot be used in combination with certain models of devices.

Integrated Communications Control with Mitsubishi Electric's Unique Transmission Network (M-NET)

Model	Local remote controller *9				System controller *9													
	PAR-31/32MAA	PAR-U02MEDA	PAC-YT52CRA	PAR-FL32MA	PAC-YT40ANRA	AT-50B	AE-200E		AE-200E + AE-50E / EW-50E		EW-50E		AG-150A		AG-150A + PAC-YG50ECA		TG-2000A *4 *5
Controllable Groups / Indoors (Group / Indoor) *8	1 / 16	1 / 16	1 / 16	1 / 16	16 / 50	50 / 50	50 / 50		200 / 200		50 / 50		50 / 50		150 / 150		2000 / 2000
							AE-200E	Browser*4	AE-200E	Browser*4	EW-50E	Browser*4	AG-150A	Browser*4	AG-150A	Browser*4	
■Operating																		
ON / OFF	○	○	○	○	◎	◎	◎■	◎■	◎■	◎■	▲	◎■	◎■	◎■	◎■	◎■	◎■	
Mode (cool / heat / dry / fan)	○	○	○	○	N	◎	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Temperature-set	○	○	○	○	N	◎	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Dual set point *10	○	○	○	N	○*11	◎	◎■	◎■	◎■	◎■	N	◎■	N	N	N	N	◎■	
Local Permit / Prohibit	N	N	N	N	N	◎	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Fan speed	○	○	○	○	N	◎	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Air-flow direction	○	○	○	○	N	◎	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
■Status monitoring																		
ON / OFF	○	○	○	○	◎	◎	◎	○	◎	○	▲	○	◎	○	◎	○	○■	
Mode (cool / heat / dry / fan)	○	○	○	○	N	○	○	○	○	○	N	○	○	○	○	○	○	
Temperature-set	○	○	○	○	N	○	○	○	○	○	N	○	○	○	○	○	○	
Local Permit / Prohibit	○	○	○	○	○	○	○	○	○	○	N	○	○	○	○	○	○	
Fan speed	○	○	○	○	N	○	○	○	○	○	N	○	○	○	○	○	○	
Air-flow direction	○	○	○	○	N	○	○	○	○	○	N	○	○	○	○	○	○	
Indoor temperature	○	○	○	N	N	○	○	○	○	○	N	○	○	○	○	○	○	
Filter sign	○	○	N	N	N	◎	○	○	○	○	N	○	○	○	○	○	○	
Error flashing	○	○	○	○	○	◎	○	○	○	○	▲	○	○	○	○	○	○■	
Error code	○	○	○	N	○	○	○	○	○	○	N	○	○	○	○	○	○	
Operation hour	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	●	
■Scheduling																		
One-day	○	○	N	N	N	○	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Times of ON / OFF per day	1	1	N	1	N	16	24	24	24	24	N	24	24	24	24	24	24	
Weekly	○	○	N	N	N	○	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Times of ON / OFF per week	8 x 7	8 x 7	N	N	N	16 x 7	24 x 7	24 x 7	24 x 7	24 x 7	N	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	
Annual	N	N	N	N	N	N	◎■	◎■	◎■	◎■	N	◎■	◎■	◎■	◎■	◎■	◎■	
Optimized start-up	N	N	N	N	N	N	○	○	○	○	N	○	○	○	○	○	○	
Auto-off timer	○	○	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Min. timer setting unit (minute)	5	5	N	10	N	5	1	1	1	1	N	1	1	1	1	1	1	
■Recording																		
Error record	○	N	N	N	N	○	○	○	○	○	N	○	○	○	○	○	○	
Daily / monthly report	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	◎	
Electricity charge	N	N	N	N	N	N	N	N	●	N	N	N	N	N	N	N	●	
Energy management data	N	N	N	N	N	N	●	●	●	●	N	●	N	N	N	N	N	
■Other																		
Temp-set limitation by Local R / C	○	○	○	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Temp-set limitation by System controller *4	○ *6	○	○ *6	N	N	○*6	N	○*2 *6	N	○*2 *6	N	○*2 *6	N	○*2 *6	N	○*2 *6	◎ *6	
Operation-lock	○	○	○	N	N	◎	N	N	N	N	N	N	N	N	N	N	N	
Night setback	○	○	N	N	N	◎	○	○*2	○	○*2	N	○*2	○	○*2	○	○*2	○	
Sliding temperature control	N	N	N	N	N	N	○	○*2	○	○*2	N	○*2	○	○*2	○	○*2	○	
BACnet® connection	N	N	N	N	N	N	●	●	●	●	●	●	N	N	N	N	N	
■Management (Group / Interlocked)																		
Ventilation interlock	N /○	N /○	N /○	N	○	○	○	○/○ *2	○	○/○ *2	N	○/○ *2	○	○/○ *2	○	○/○ *2	○/○	
Group setting	○ *1	○	○ *1	N	○	○	○	○*2	○	○*2	N	○*2	○	○*2	○	○*2	○	
Block setting	N	N	N	N	N	N	○	○*2	○	○*2	N	○*2	○	○*2	○	○*2	○	
Revision of electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	□●	
■Operating on LOSSNAY interlocked (Group / Interlocked)																		
ON / OFF	N /○	N /○	N /○	N /○*7	◎/◎*3	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	▲/▲	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	
Fan speed	N /○	N /○	N	N	N	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	N / N	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	
Ventilation mode	N / N	N	N	N	N	◎/ N	◎/ N	◎/ N	◎/ N	◎/ N	N / N	◎/ N	◎/ N	◎/ N	◎/ N	◎/ N	○/ N	
■Status monitoring on LOSSNAY interlocked (Group / Interlocked)																		
ON / OFF	N /○	N /○	N /○	N	N	○/○	◎/◎	◎/◎	◎/◎	◎/◎	▲/▲	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	
Fan speed	N /○	N /○	N	N	N	○/○	○/○	○/○	○/○	○/○	N / N	○/○	○/○	○/○	○/○	○/○	○/○	
Ventilation mode	N	N	N	N	N	○/ N	○/ N	○/ N	○/ N	○/ N	N / N	○/ N	○/ N	○/ N	○/ N	○/ N	○/ N	

◎: Each group / Batched ; ○: Each group ; □: Block (for CITY MULTI Indoor unit, not for all Mr.SLIM) ; ●: AE-200E/AE-50E/EW-50E/AG-150A license registration possible.
(●) : License registration for the optional functions required N : Not Available (Not Used.) △: Batched only ; ▲: Batched handling (for maintenance) ■: Block

*1. Group setting via wiring between Indoor units with cross-over cable;
*2. Installation possible at Initial setting web browser;
*3. Inter-lock is set at Local remote controller.
*4. AG-150A license registration to AG-150A is required to monitor and operate the units by browser and TG-2000A.
AE-200, AE-50, and EW-50 are standard equipped with the Web Browser. No license registration is required.
5. AG-150A connected with PAC-YG50ECA is compatible with TG-2000A Ver.6.10 or later.
AE-200E/AE-50E is compatible with TG-2000A Ver. 6.50A or later.
EW-50E is compatible with TG-2000A Ver.6.60 or later.
*6. This function can be set only on the ME remote controller.
This function cannot be used with the MA/Simple MA remote controller.
(But, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and there are possibilities that this function can be used with them.)
*7. Inter-lock is set from system controllers (Except PAC-YT40ANRA) or local remote controllers.
*8. The maximum number of controllable units decreases depending on the indoor unit model.
*9. For indoor use only.
*10. This function is supported only when all the indoor units, remote controllers, and system controllers that are connected to a given group features the function.
*11. For the availability of the function, please contact your local distributor.
*12. BAC-HD150 ver. 2.10 and later supports the dual set point function.

Air conditioner control system interface

LMAP04-E : LonWorks® Interface
Controls up to 50 Groups/ 50 units, for details, refer to its description.

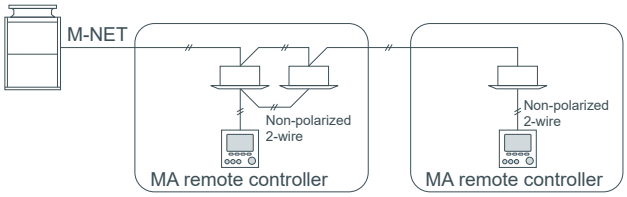
BAC-HD150: BACnet® Interface
Controls up to 50 Groups/ 50 units, up to 150 Groups/ 150 units with three expansion controllers, for details, refer to its description. *12

Individual Remote Controller

Wired MA remote controller PAR-31/32MAAE

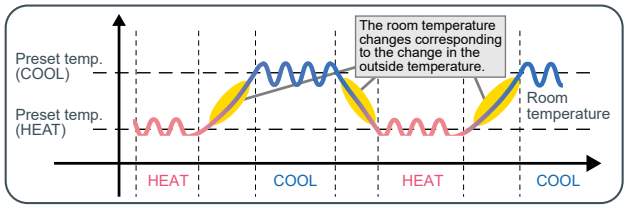
Dimensions: 120(W) x 120(H) x 19(D) mm
: 4-3/4(W) x 4-3/4(H) x 3/4(D) in.

Example of system configuration



*When a PAR-31MAAE is connected to a group, no other MA remote controllers can be connected to the same group.

Operation pattern during Auto (dual set point) mode



- **Temperature will be displayed either in Centigrade in 0.5- or 1-degree increments, or in Fahrenheit, depending on the indoor unit model and the display mode setting on the remote controller.**
- **Dual set point**
  When the operation mode is set to the Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.
  *Please contact your Mitsubishi Electric sales office for details.
- **Backlit LCD (Liquid Crystal Display)**
  Large, easy-to-see display
  Full-dot LCD display with large characters for easy viewing
  Contrast also adjustable
- **Night Setback**
  To prevent indoor dew or excessive temperature rise, this control starts heating operation when the control object group is stopped and the room temperature drops below the preset lower limit temperature. Also, this control starts cooling operation when the control object group is stopped and the room temperature rises above the preset upper limit temperature.
- **Language selection**
  Language to be displayed on the screen can be selected from eight languages: English, French, German, Spanish, Italian, Portuguese, Swedish, and Russian.

  For advanced i-See Sensor functions for the PLFY-VFM, PAR-32 is required.

Functions

○: Each group ×: Not available

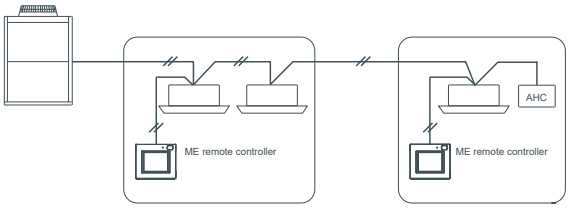
Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches among Cool/Dry/Fan/Auto/Heat.	○	○
Room temp. setting	The temperature can be set within the following range. Cool/Dry : 19°C - 30°C / 67°F - 87°F Heat : 17°C - 28°C / 63°F - 83°F Auto : 19°C - 28°C / 67°F - 83°F * Set temperature range varies depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Louver setting	Switches between louver ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with the CITY MULTI LOSSNAY units can be made. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Error information	When an error occurs, an error code and the unit address appear. Air conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The information above needs to be entered in advance.) * An error code may not appear depending on the error.	–	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Allows/disallows local operation	The following operation can be prohibited by making certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, fan speed, air direction, and filter sign reset. * While an operation is prohibited, the operation icon lights up (only on the Main display in the "Full" mode).	×	○
Operation lock	The following operation can be prohibited respectively: ON/OFF, operation mode setting, temperature setting, and airflow direction setting.	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○

Individual Remote Controller

ME remote controller PAR-U02MEDA

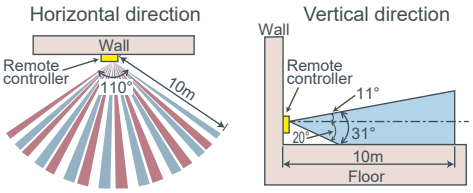
Dimensions : 140(W) x 120(H) x 25(D) mm
: 5-9/16(W) x 4-3/4(H) x 1(D) in.

Example of system configuration



- **Occupancy Sensor**
  The occupancy sensor detects vacancy for energy-save control.
- **Touch Panel & Backlit LCD**
  The touch panel shows the operation settings screen.
  When the backlight is off, touching the panel turns the backlight on, and it will stay lit for a predetermined period of time.
- **LED Indicator**
  The LED indicator indicates the operation status in different colors.
  The LED indicator lights up during normal operation, turns off when units are stopped, and blinks when an error occurs.
- **Brightness Sensor**
  The brightness sensor detects the brightness of the room for energy-save control.
- **Temperature & Humidity Sensor**
  The sensor detects the room temperature and the relative humidity.
- **Device control via AHC (Advanced HVAC Controller)**
  Allows for control of other manufacturer's products connected via AHC.
- **Auto (Dual Set Point) Modes**
  Two set temperatures (one each for cooling and heating) can be set.

Occupancy Sensor detection zone



Functions

○:Each group ×:Not available

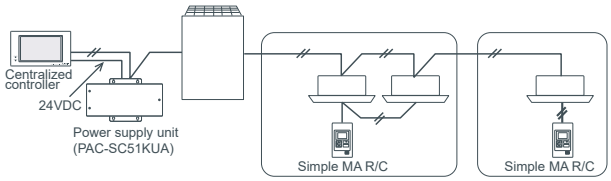
Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Drying / Fan / Heat / Auto. Operation modes vary depending on the indoor unit model. Auto mode is for CITY MULTI R2, and WR2 series only.	○	○
Temperature setting	The temperature can be set within the following range. Cool / Drying : 19°C - 35°C / 67°F - 95°F Heat : 4.5°C - 28°C / 40°F - 83°F Auto : (single set point) : 19°C - 28°C / 67°F - 83°F Auto : (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * The settable temperature ranges vary depending on the indoor unit model.	○	○
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Allows/disallows local operation	The following operation can be prohibited by making certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, fan speed, air direction, and filter sign reset. * While an operation is prohibited, the operation icon lights up.	×	○
Error information	When an error occurs, an error code and the unit address appear. Contact number can be set to appear when an error occurs. (The information above needs to be entered on the Service menu.)	—	○
Schedule (Weekly timer)	Weekly ON/OFF times, operation mode, and set temperatures can be set. • Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 in 10-minute increments.	○	○
Energy-save control during vacancy	When vacancy is detected by the occupancy sensor, the energy-save control assist function is activated. Four control types are available for selection: ON/OFF/Set temperature/Fan speed/Thermo-off. The brightness sensor can be used in conjunction with the occupancy sensor to detect the occupancy/vacancy status more accurately.	○	○

Individual Remote Controller

Simple remote controller PAC-YT52CRA (MA)

Dimensions: 70(W) x 120(H) x 14.5(D) mm
: 2-3/4(W) x 4-23/32(H) x 9/16(D) in.

Example of system configuration



- **Dual Set Point**
  When the operation mode is set to the Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.
  *Please contact your Mitsubishi Electric sales office for details.
- **Backlit LCD**
  Backlight for operation in dark places
- **Flat Back**
  Slim, flat design - install without creating a hole in the wall
  Thickness is less than 14.5mm [0.6(in)]
- **Vane Button (standard)**
  The Vane button has been added to allow the user to change airflow direction (ceiling-cassette and wall-mounted types).

Pressing the button will switch the vane directions.

*The settable vane direction varies depending on the indoor unit model to be connected.
* If the unit has no vane function, the vane direction cannot be set.
In this case, the vane icon blinks when the button is pressed.

- **The only wiring required is cross-over wiring based on two-wire signal lines**
- **Room temperature sensors are built-in**
- **Can operate all types of indoor units**
  *Since this controller has limited functions, it should always be used in conjunction with standard controller or centralized controller.
- **LCD temperature setting and display in 1°C /1°F increments**

Functions

□: Each unit ○: Each group ×: Not available

Item	Description	Operations	Display
ON/OFF	Changes between ON and OFF.	○	○
Operation mode switching	Select from COOL, DRYING, FAN, AUTO, and HEAT. * AUTO mode is settable only when those functions are available on the indoor unit.	○	○
Temperature setting	The temperature can be set within the following range. Cool/Drying : 19°C - 35°C/67°F - 95°F Heat : 4.5°C - 28°C/40°F - 83°F Auto (single set point) : 19°C - 28°C/67°F - 83°F Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * Set temperature range varies depending on the model.	○	○
Fan speed setting	Changes the fan speed. * The settable fan speed varies depending on the indoor unit model to be connected.	○	○
Permit / Prohibit local operation	By setting a centralized controller, the following local operations are prohibited: ON/OFF; operation mode; preset temperature; * The CENTRAL icon appears while the local operations are prohibited.	×	○
Error	Displays the current error status with the address. * The address may not be displayed depending on the error status.	×	□
Ventilation equipment	When the CITY MULTI indoor unit is connected, interlocked setting of the CITY MULTI LOSSNAY unit is possible. When the Mr. SLIM indoor unit (A-control) is connected, interlocked operation of the microcomputer-type LOSSNAY unit is possible.	○	○
Set temperature range limit	The preset temperature range can be restricted for each operation mode (COOL/HEAT/AUTO).	○	○

MA Touch Remote *PAR-CT01MAA*

NEW release

Full Colour Touch Panel 3.5” Display

Featuring a 3.5” HVGA Full Colour LCD screen

Customisable Colour Options

180 different colour patterns can be selected for control parameters or background. A wide variety of colours are available to suit the décor of any room.

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.

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.

PAR-CT01MAA

■ Functions

1. Operation/Display

○:Each group ×:Not available

Item	Description	Setting	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches among Cool/Dry/Fan/Auto/Heat.	○	○
Room temp. setting *3	The temperature can be set within the following range. Cool/Dry: 19°C - 35°C/67°F - 95°F Heat: 4.5°C - 28°C/40°F - 83°F Auto (single set point): 19°C - 28°C/67°F - 83°F Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * Set temperature range varies depending on the model.	○	○
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Louver setting	Switches between louver ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with the City Multi Lossnay units can be made. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Auto descending panel *1	Raises and lowers the automatic elevating panel.	○	○
Touch panel & Backlit full color LCD	Pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen. The color of the backlight can be changed.	○	○
Main display mode setting	The Main display can be displayed in two different modes: "Full" and "Basic." The icon explanation setting can be enabled or disabled.	○	○
Clock *2	Date (year/month/day) and time (hour/minute) can be set. The set time as well as the day of the week will be displayed on the Main display. It is also possible to set not to display the time on the Main display.	○	○
Daylight saving time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the setting contents.	○	○
Clock display	The clock can be displayed in 12-hour format (AM/PM before or after the time) and 24-hour format.	○	○
Room temp. display *3	The room temperature display can be enabled or disabled.	—	○
Error information	When an error occurs, an error code and the unit address appear. Air conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The information above needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Filter information	A filter sign will appear when it is time to clean the filter.	—	○
Touch panel	The touch panel can be cleaned and calibrated.	—	○
Bluetooth connection, Bluetooth, Screen update	The Bluetooth connection information can be acquired. Using an Application, a logo image as well as settings data can be sent to the remote controller.	○	○
Remote controller information	The version of the remote controller can be checked.	—	○

● Backlit LCD ● Can be set and shown by 0.5°C degree.

2. Schedule and timer setting

○: Each group ×: Not available

Item	Description	Setting	Display
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Weekly timer	Weekly ON/OFF times and set temperatures can be set. • Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Night setback	The temperature range and the start/stop times can be set.	○	○

3. Restriction settings

○: Each group ×: Not available

Item	Description	Setting	Display
Allows/disallows local operation	The following operation can be prohibited by making certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, and filter sign reset. * While an operation is prohibited, the operation icon lights up (only on the Main display in the "Full" mode).	×	○
Operation lock	The following operation can be prohibited respectively: "Location," "On/Off," "Mode," "Set temp.," "Menu," "Fan," "Louver," or "Vane."	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 in 10-minute increments.) * Not valid when the temperature setting range is restricted.	○	×
password	Administrator password (required for schedule setting etc.) and Maintenance password (required for test run and function setting etc.) can be set.	○	×

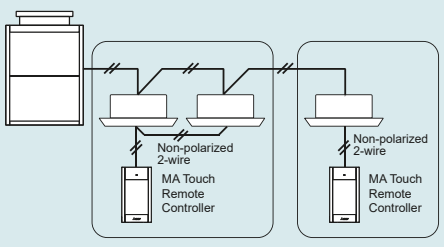
4. Miscellaneous items

○: Each group ×: Not available

Item	Description	Setting	Display
Language Selection	English, French, Spanish, Italian, Portuguese, Greek, Turkish, Swedish, German, Dutch, Russian, Czech, Hungarian, Polish	○	○
Brightness	The brightness of the LCD can be adjusted. The "Stay lit" setting can be enabled or disabled.	○	○
Manual vane Angle *1	Fixes the vane position for each air outlet.	○	×
Service *1	Contains Test run, Function setting, Refrigerant volume check, Refrigerant leak check, Smooth maintenance, Request code, and Error history.	○	○
3D i-See sensor	Settings for 3D i-See sensor can be made.	○	○
Design	The color of the screen can be changed.	○	○

*1 This function is active only for the units that support the function.
*2 The clock is accurate within 50 seconds per month (at the temperature of 25ºC [77°F]). The clock is backed up for 7 days.
*3 Temperature will be displayed either in Centigrade in 0.5- or 1-degree increments, or in Fahrenheit, depending on the indoor unit model and the display mode setting on the remote controller.

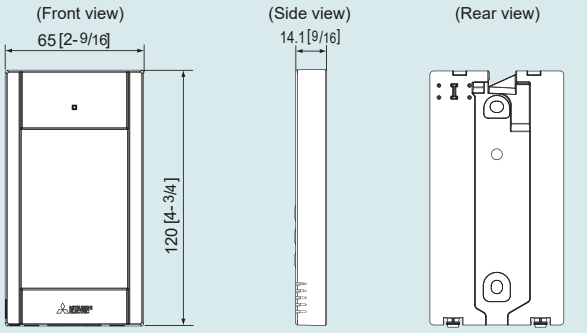
■System example



*When a PAR-CT01MAA is connected to a group, no other MA remote controllers can be connected to the same group.

■External dimension

Unit: mm[in.]



Wireless remote controller PAR-FL32MA / PAR-SL100A-E / PAR-FA32MA / PAR-SA9FA-E / PAR-SF9FA-E / PAR-SL94B-E

PAR-FL32MA

Dimensions: 58(W) x 159(H) x 19(D) mm
: 2-5/16(W) x 6-5/16(H) x 3/4(D) in.

PAR-FA32MA

Dimensions: 70(W) x 120(H) x 22.5(D) mm
: 2-3/4(W) x 4-3/4(H) x 7/8(D) in.

PAR-SA9FA-E
(4-way Cassette signal receiver)

Dimensions: 256(H) x 19(D) mm

NEW

PAR-SF9FA-E
(2x2 Cassette signal receiver)

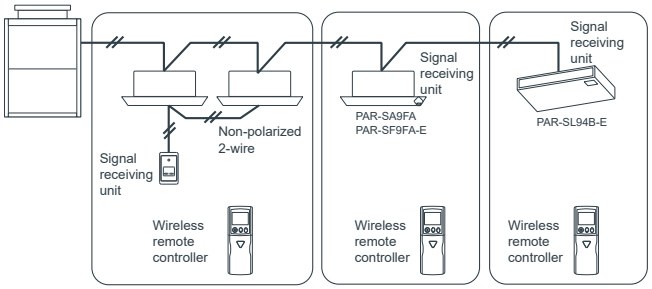
Dimensions: 214(H) x 25.5(D) mm

PAR-SL94B-E
(Wireless remote controller kit for ceiling suspended)

Dimensions: 182(W) x 57(H) x 31(D) mm

- **No need to configure addresses for group operation.**
- **Lit LED keeps you informed of operation - blinking even gives you the error code via the number of blinks.**
- **Can be used with the MA remote controller.**
  *When used in group configurations, wiring between indoor units is required.
  *Combining ME remote controller and/or LOSSNAY remote controller in a group is not possible.
- **Multiple indoor units cannot be controlled from PAR-SL100A-E.**
  Only one indoor unit can be used in each group.
- **LCD temperature setting and display in 1°C /1°F increments.**

Example of system configuration



Correspondence table

	receiver	transmitter
PMFY-P*VBM PLFY-P*VLMD PFFY-P*VKM PEFY-P*VMR-E/R/VMH PFFY-P*VLEM/VKM/VLRM/VLRMM PEFY-P*VMS1(L) PEFY-P*VMA(L)	PAR-FA32MA	PAR-FL32MA

	receiver	transmitter
PCFY-P*VKM	PAR-FA32MA PAR-SL94B-E	PAR-FL32MA
PLFY-P*VBM-E	PAR-SA9FA-E	
PKFY-P*VBM-E PKFY-P*VHM-E/VKM	Built-in	
PLFY-P*VFM-E1	PAR-SF9FA-E NEW	

Functions

○: Each group ×: Not available

Item	Description	Operations	Display
ON/OFF	ON and OFF operation for a single group	○	○
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry : 19°C - 30°C (14°C - 30°C) / 67°F - 87°F (57°F - 87°F) Heat : 17°C - 28°C (17°C - 28°C) / 63°F - 83°F (63°F - 83°F) Auto : 19°C - 28°C (17°C - 28°C) / 67°F - 83°F (63°F - 83°F) ( ) For PEFY/PFFY by setting DipSW 7-1 to ON and limits to HIGH fan speed only. * Set to PAR-FL32MA according to its Installation Manual 4 "Model setting".	○	○
Air flow direction setting	Air flow direction angles (4-angle, Swing) Auto Louver ON/OFF. Air flow direction settings vary depending on the model.	✳	✳
Timer operation	One ON/OFF setting can be set for one day.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (ON/OFF, Change operation mode, Set temperature, Reset filter). *1 If operation is performed when the local remote controller inactivation command is received from the main system controller, a buzzer will ring and an LED will flash.	×	○*1
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one LOSSNAY. The LOSSNAY will run in interlock with the operation of indoor unit. *2 The fan rate and mode cannot be changed.	×*2	×

*Some models will have different display for the air flowdirection and fan speed. Set the air flow direction and fan speed when performing initial setting.

Centralised Remote Controller

With our new Advanced Touch Controller AT-50B, easy and simple operation on the touch panel offers an optimal air environment for individual unit.

Advanced Touch controller AT-50B

Dimensions: 180(W) x 120(H) x 30(D) mm
: 7-2/16(W) x 4-12/16(H) x 1-3/16(D) in.

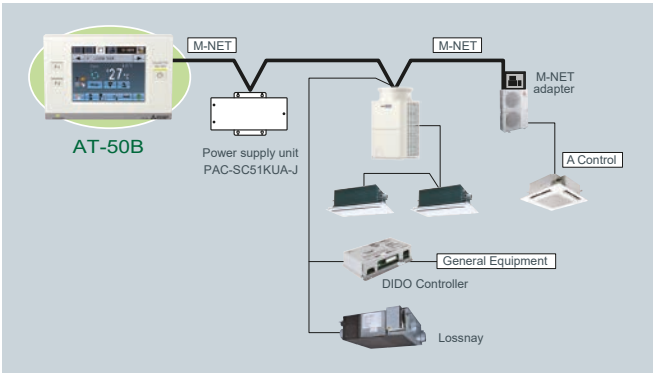
Dual Set Point

- **Temperature will be displayed either in Centigrade in 0.5- or 1-degree increments, or in Fahrenheit, depending on the indoor unit model and the display mode setting on the remote controller**
- **Dual set point**

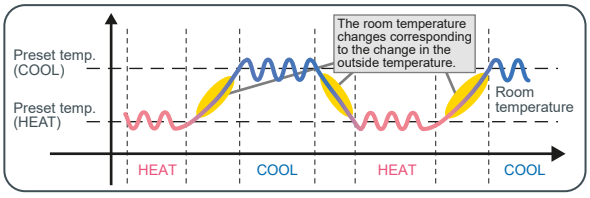
  When the operation mode is set to the Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.

  *Please contact your Mitsubishi Electric sales office for details.

System structure



Operation pattern during Auto (dual set point) mode



Design

Backlit LCD (Liquid Crystal Display) Touch Panel

5-inch color LCD touch panel enables easy and simple operation.
The backlight lights up when the panel is touched, and lights off after certain period of time.
The touch panel displays the operation status of the units in GRID, LIST or in GROUP.

GRID (zoom-out) screen
Displays the operation status of all groups.

GRID (zoom-in) screen
Displays the detailed operation status of each group.

LIST screen
Displays the detailed operation status of each group with group name.

GROUP screen
Displays the detailed operation status of each group.
Sets group operations.

Functions

Three in one
The following three features are integrated into AT-50B.
- Control up to 50 indoor units from one location
- A weekly programmable timer, being able to control up to 50 indoor units
- Control up to 50 units/50 groups of air conditioners

Weekly and daily schedule
5 patterns of one day and 12 patterns of weekly schedule (16 settings max. per pattern).
Two types of weekly schedule can be set.

System changeover
Operation mode can be switched depending on indoor temperature setting and target temperature of each group or a representative indoor unit.

Night setback function
This function allows having a two-temperature setting to keep the desired room temperature when the units are not in operation and during the time this function is effective. The unit automatically starts heating (cooling) operation when the temperature drops below (rises above) the preset lower (upper) limit temperature. This is not only for comfort environment, but also for saving energy.

Main system controller/Sub system controller
AT-50B can be set to Sub System controller.
When connecting multiple system controllers, designate the system controller with many functions as the "Main", and set the system controllers with few functions as the "Sub".

Simple button arrangement
The F1 (Function 1) and the F2 (Function 2) button can be set as a run button of the following collective operation. (Setback/Schedule/Operation Mode/Temperature Correction/Remote Controller Prohibition)

Functions
[Basic Functions]
- ON/OFF
- Operation mode switching
- Temperature setting
- Fan speed setting
- Airflow direction setting
- Louver setting

Advanced Functions

□: Each unit ○: Each group ◎: Group or collective ×: Not available

Item	Description	Operations	Display
Permit / Prohibit	The ON/OFF, operation mode, setting temperature, fan speed, air direction, filter sign reset operations, and timer using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the LOSSNAY group. *The settable items vary depending on the models.	◎	◎
Operation lock	The operation lock can be set to the input operation of AT-50B. Each button can be set. (Function Button 1, Function Button 2, Collective ON/OFF, Touch Panel) Each function can be set. (Operation mode, Setting temperature, Fan speed, Menu button) The password for the lock release can be set.	◎	◎
Error display	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed. * When an error occurs, the "ON/OFF" LED flashes. The operation monitor screen show abnormal icon over the unit. The error monitor screen shows the abnormal unit address and error code. The error log monitor screen shows the time and date, the abnormal unit address, error code and source of detection.	×	□◎
Ventilation (independent)	Switches the mode "Bypass/Heat recovery/Auto" for LOSSNAY groups.	◎	◎
Ventilation (interlocked)	The LOSSNAY will run in interlock with the operation of indoor unit. The mode cannot be changed. The LED will turn ON during operation after interlocking.	◎	◎
Temperature-set limitation	Batch-setting to temperature range limit at cooling, heating, and auto mode. This function cannot be used with the MA remote controller. (Depends on the indoor unit model.)	◎	◎
Specific mode operation prohibit (Cooling prohibit, heating prohibit, cooling/heating prohibit)	When set as the main controller, operation of the following modes with the local remote controllers can be prohibited. When cooling is prohibited: Cooling, dry, automatic can not be chosen. When heating is prohibited: Heating, automatic can not be chosen. When cooling/heating is prohibited: Cooling, dry, heating, automatic can not be chosen.	◎	◎
External input (Emergency stop input, etc.)	The following input with level signals or pulse signals are available. Level signal: "Emergency stop input" or "Collective ON/OFF" Pulse signal: "Collective ON/OFF" or "Local remote controller prohibit/permit" One input can be selected from those above. * An external input/output adapter (PAC-YT51HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	◎	◎
External output (Error output, operation output)	"ON/OFF" and "error/normal" are output with the level signal. * An external input/output adapter (PAC-YT51HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	◎	◎
Checking the Gas Amount	Use this function to check for refrigerant leak from the outdoor unit. * When this function is used, the gas amount checking function of the outdoor unit cannot be used. This function is for CITY MULTI R2 and Y (PUMY is excluded.) series only.	□	□
Schedule operation	Weekly schedule setting up to 12 pattern is available. In one pattern, up to 16 setting of "ON/OFF", "Operation mode", "Set Temperature", "Fan speed", "Air flow direction" and "Permit / Prohibit local operation" can be scheduled. Two types of weekly schedule(Summer/Winter) can be set. Today's schedule setting up to 5 pattern in available.	○	○

* Depending on the installation conditions, power supply unit (PAC-SC51KUA) is required. Please contact your local distributor or MITSUBISHI ELECTRIC branch office for further information.

Centralised Remote Controller

Centralised controller AE-200E/AE-50E

NEW

Dual Set Point

Dimensions: 284(W) x 200(H) x 65(D) mm
: 11-5/32(W) x 7-27/32(H) x 2-9/16(D) in.

- **Comprehensively showing the energy consumption of air conditioning equipment, assisting in energy saving**
  - Energy consumption of air-conditioning equipment by individual area is displayed using graphs for easier viewing
  - Enables comparisons with the previous year's power consumption as well as with the target electric power, thus allowing users to check the operating state at a glance
  - Floor layout is displayed on the 10.4-inch LCD touch panel, facilitating easier operation of air-conditioning equipment
- **In an easy and flexible manner, an optimum system can be established according to the scale of facilities**
  - Implements control on up to 50 indoor units of air-conditioning equipment
  - By using three units of expansion controller "AE-50E", the centralised control is implemented for the maximum of 200 indoor units
  - Connection with PC allows implementation of control on more than 200 indoor units via Web browser*1

  *1. Please contact your local distributor for when the feature is supported.
- **Features for operating and monitoring the hot water heat pump are also available on CAHV, PWFY, and CRHV*2**
  - Centralised batch control on CAHV, PWFY, and CRHV *2 is possible in addition to that on air-conditioning unit

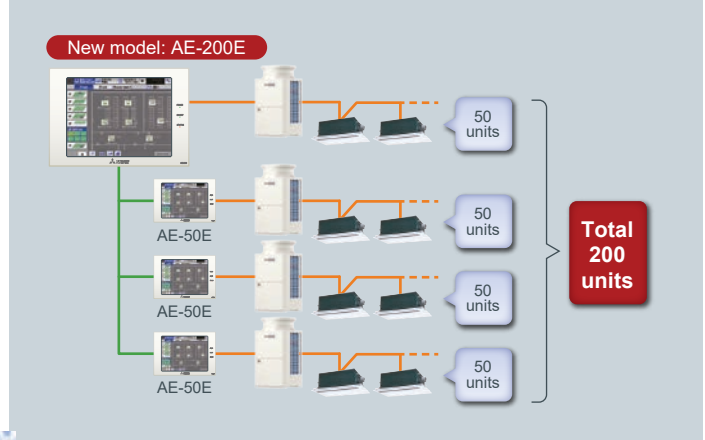
  *2. Please contact your local distributor for when these features are supported on CRHV.

Control Screen for Power Consumption

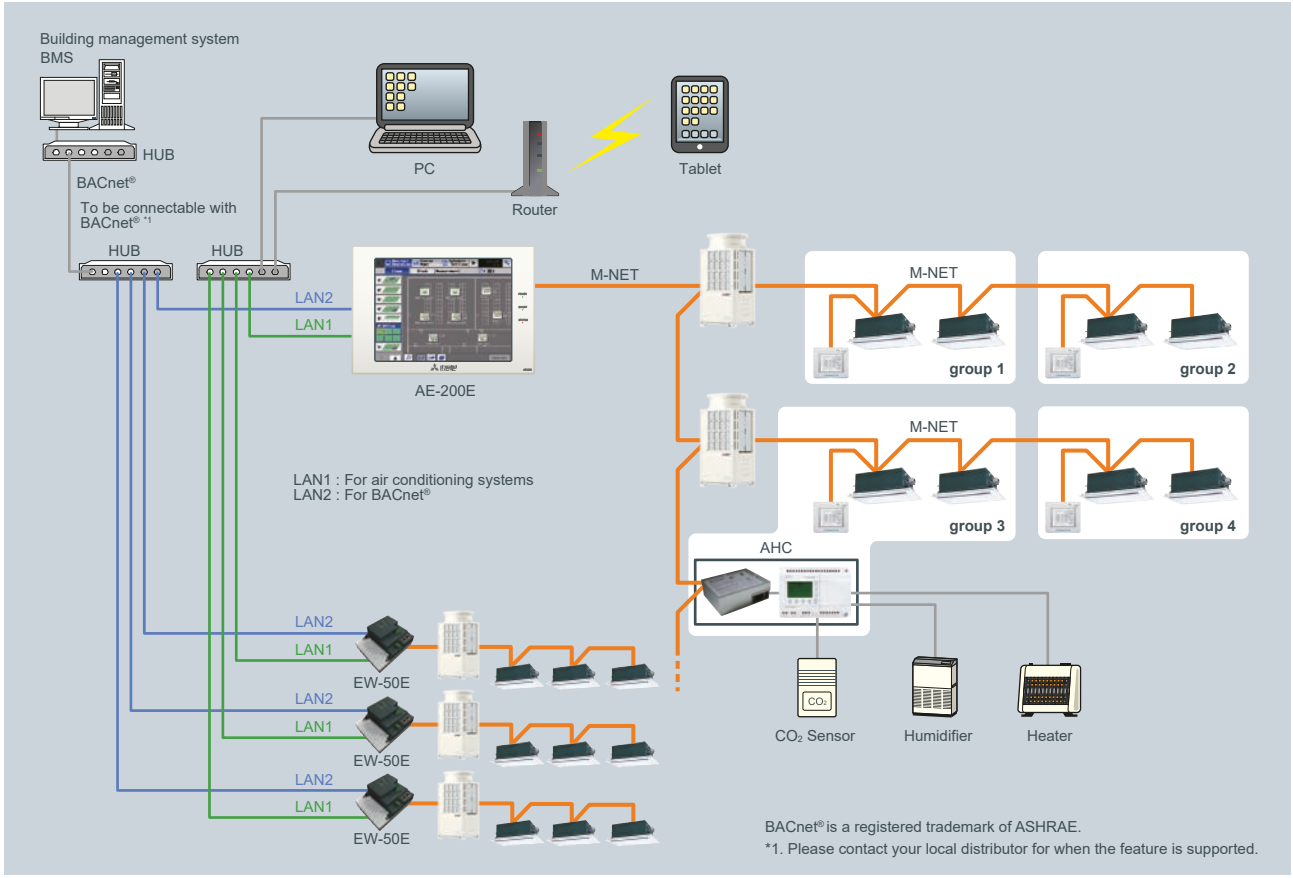
Energy consumption of applicable area is displayed by the month, day, and hour.
Energy consumption of two different units, groups and blocks can be compared.
Fan operation time as well as energy consumption can be displayed.

Energy consumptions of air-conditioning equipment are ranked and displayed by individual air-conditioning equipment and by area, thus visualising high-load components. Also, comparison of energy consumption with target electric energy is possible.

Number of connectable units



System Structure



Functions

□ : Each unit ○ : Each group ● : Each block △ : Each floor ◎ : Collective × : Not available

Item	Description	Operations	Display
Controllable number of unit	Up to 50 units/50 groups		
ON/OFF	ON and OFF operation for the air conditioning units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	○ ◎ △ ●	○ ◎
Operation mode	Switches between several operation modes depending on the air conditioning unit. Air conditioning unit : Cool/Dry/Auto(*)/Fan/Heat LOSSNAY unit : Heat Recovery/Bypass/Auto CAHV, CRHV, Air To Water (PWFY) units : Heating, Heating ECO, Hot Water, Anti-freeze, Cooling(**) * Auto mode is for CITY MULTI R2 and WR2 series only. ** Only PWFY	○ ◎ △ ●	○
Temperature setting	Cool/Dry : 19°C (67°F) -35°C (95°F) [14°C (57°F) -30°C (87°F)] Heat : 4.5°C (40°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] Auto : 19°C (67°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] The range of temperature depends on the air conditioning unit. [ ] in case of using middle-temperature on PDFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	○ ◎ △ ●	○
Fan speed setting	Models with 4 air flow speed settings : Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings : Hi/Mid/Low Models with 2 air flow speed settings : Hi/Low Fan speed setting (including Auto) varies depending on the model.	○ ◎ △ ●	○
Air flow direction setting	Air flow direction angles, 4-angles or 5-angles Swing, Auto (Louver cannot be set)	○ ◎ △ ●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○ ◎ △ ●	○
Permit/prohibit local operation	Individually prohibits operation of each local remote controller function. (ON/OFF, Operation mode, Set temperature, Filter sign reset, Air Direction*, Fan Speed*, Timer*) * This function depends on the model.	○ ◎ △ ●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	○
Error	When an error is currently occuring on an air conditioning unit, the afflicated unit and the error code are displayed.	×	□ ◎
Test run	This operates air conditioning units in test run mode.	○ ◎ △ ●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○ ◎ △ ●	○
External input/output	By using optional external input/output adapter (PAC-YG10HA-E) you can set and monitor the following. Input : By level signal : "Batch ON/OFF", "Batch emergency stop" By pulse signal : "Batch ON/OFF", "Enable/disable local remote controller" Output : "ON/OFF", "Error/Normal"	◎	◎
Energy Management	Bar Graph : Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily and monthly. Line Graph : Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA and temp. from AHC.	×	□ ○ ●
Advanced HVAC Controller (AHC)	The status of AHC can only be monitored.	×	○
New Smart ME contoroller	The status of sensor on this controller can be monitored.	×	○
Smartphone/Tablet	The specified Web browser on iOS and Android OS can monitor and operate AE-200E. *1	○	○
New Web design	The web screen design is renewed for user friendly interface. *1	○ ◎ △ ●	○
Initial setting software	The initial setting can be configured without the connection of AE-200E. *1	×	×
Apportionment of power consumption	Apportionment of power consumption can be calculated on AE-200 without TG-2000A. *1	●	□ ●
BACnet® communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL. *1	○	×

*1. Please contact your local distributor for when the feature is supported.

Centralised Remote Controller or Expansion Module for AE200

Centralised controller EW-50E

Dimensions: 209(W) x 172(H) x 92(D) mm
: 8-1/4(W) x 6-25/32(H) x 3-5/8(D) in.

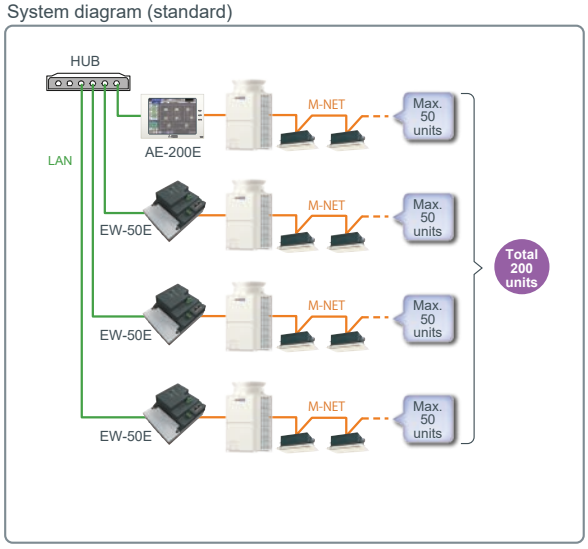
Main Features

- **Available as the expansion controller for AE-200E**
  Connecting three EW-50E units to an AE-200E makes it possible to operate and monitor a maximum of 200 indoor units.
- **Apportioned electricity charge function**
  The amount of power consumed by the air conditioners is calculated with the use of AE-200E. The calculated data can be output to the PC via USB memory or LAN, and the charge report can be created with the use of the designated charge calculation tool.

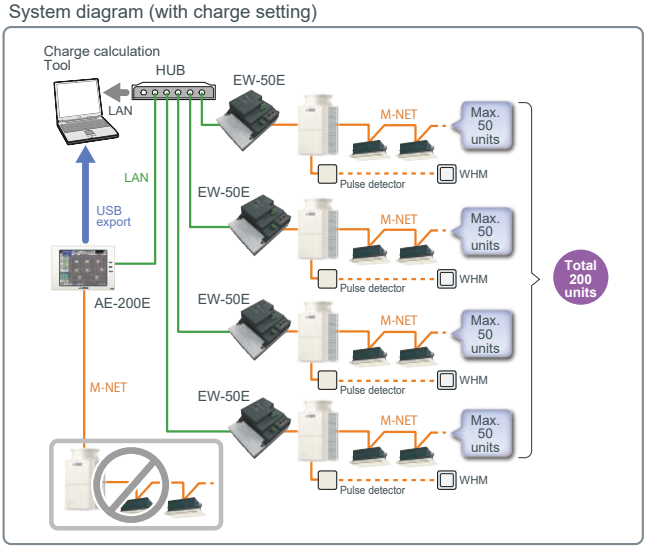
*The apportioned electricity charge function on AE-200E and TG-2000A cannot be used together.
*To use the apportioned electricity charge function on AE-200E, check that the version of TG-2000A is 6.60 or later, even if the apportioned electricity charge function on TG-2000A is not used.
*For other restrictions, refer to the Installation Manual and Instruction Book.

System Structure

System diagram (standard)



System diagram (with charge setting)

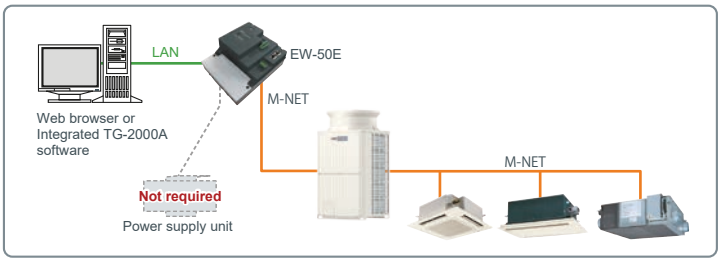


* When M-NET of AE-200E is not used, a maximum of four EW-50E units can be connected.

- **Enabled to operate and monitor air conditioners independently by using a PC**
  Even without an AE-200E, EW-50E is possible to monitor and operate air conditioners using a browser software*1. Via the Internet, air conditioners can be monitored and operated from a remote location. In addition, air conditioners in multiple buildings can be operated collectively.*2

* 1. The operation of this product has been confirmed on Internet Explorer 8, IE9, IE10, and IE11, and on Oracle® Java Ver8.
Microsoft® Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.
Oracle® and Java® are trademarks or registered trademarks of Oracle Corporation, its subsidiaries, and related companies in the United States or other countries.
Company names and product names in this brochure may be trademarks or registered trademarks of the respective rights holder.

* 2. When connecting an EW-50E via the Internet, do not directly connect the EW-50E to the Internet.
Instead, always connect via a router via a VPN function that can ensure security.
To monitor the indoor units connected to EW-50E, use TG-2000A of Ver. 6.60 or later.



• **Manage air conditioner usage conditions**
It is possible to use a web browser to display the energy consumption of air conditioners in an easy-to-understand manner.



• **Operable without the transmission line power supply unit**
Because the EW-50E unit is equipped with a power supply function, power supply from a transmission line power supply unit is not necessary.
Since power supply from an outdoor unit is also not necessary, self-sustained operation is possible even when the outdoor unit system goes down. (If the power consumption factor exceeds 1.5, a power supply unit is required.)

• **Energy-saving control**
By adding an energy-saving control license (optional product), the set temperature can be changed automatically*1 based on the room temperature surrounding each air conditioner. Therefore, energy-saving control is possible without affecting comfort greatly.

* 1. This function changes the set temperature in units of +2°C for cooling and -2°C for heating by the specified time interval.
If the difference between the suction temperature and the set temperature is significant, it is possible to exclude it from the energy-saving subject.

Functions

* The functions and specifications are subject to change.

◎: By group or multiple groups ○: By group □: Batch only

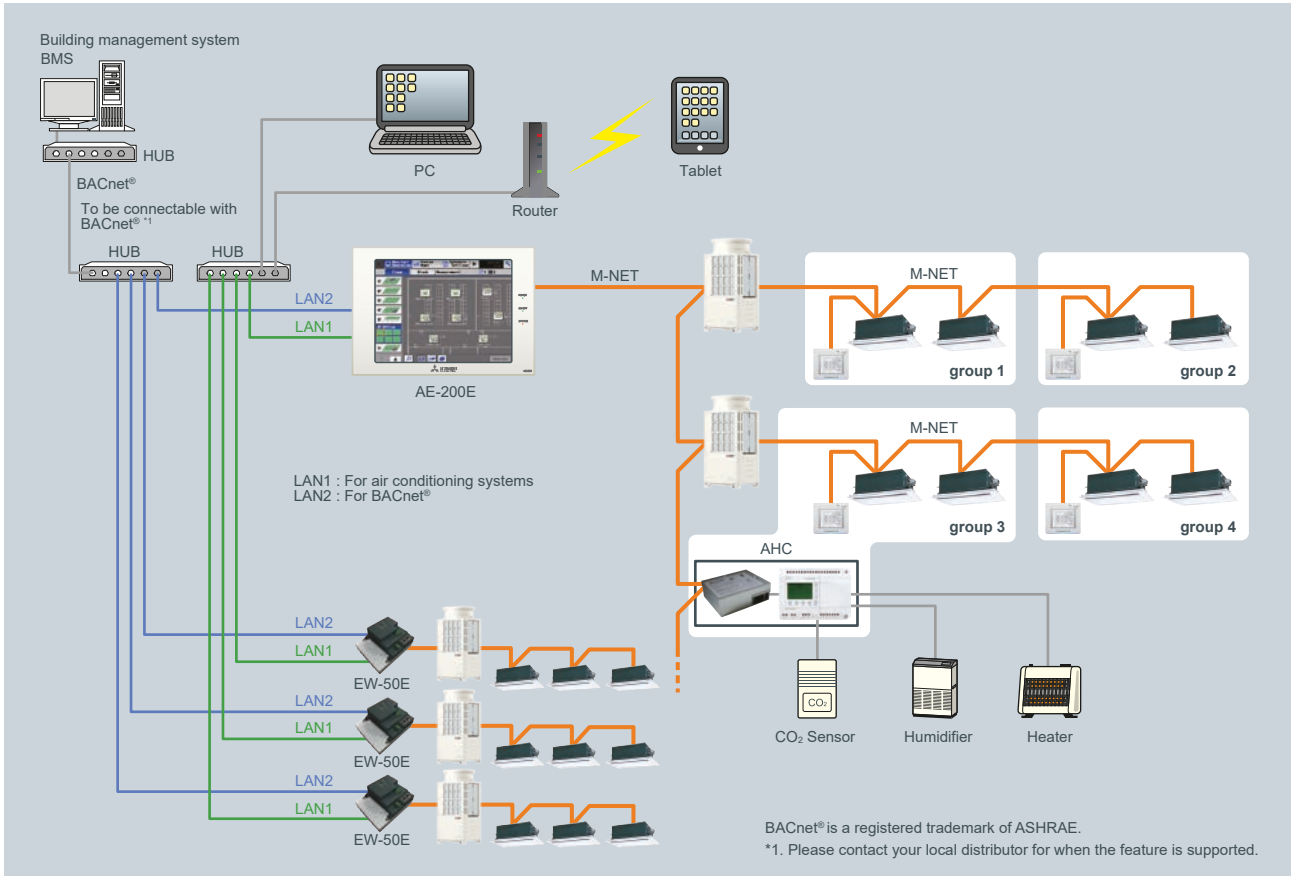
Item	Remarks	Setting	Display
ON/OFF	Switches to ON or OFF air conditioners and general equipment.	◎	◎
Operation mode switching	Switches to cool, dry, auto, fan, or heat operation. * Depending on the unit, some modes are not available.	◎	○
Room temperature setting	The temperature can be set within the following range. Cool/Dry: 19°C - 35°C/67°F - 95°F Heat: 4.5°C - 28°C/40°F - 83°F Auto (single set point): 19°C - 28°C/67°F - 83°F Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. * Set temperature range varies depending on the model.	◎	○
Set temperature 0.5°C increments	The temperature can be set and displayed in 0.5°C increments. * With some unit combinations, the temperature is set in 1°C increments.	◎	○
Fan speed setting	The fan speed can be set to 4 levels, 3 levels, 2 levels or automatic. * Available fan speeds differ depending on the unit.	◎	○
Air direction setting	Fixed swing in five levels or auto air direction can be set. * Available air directions differ depending on the unit.	◎	○
Prohibition of local remote controller operation	It is possible to disable the ability to use to local remote controller to run or stop, the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation. * In the Lossnay group, only ON/OFF and filter reset can be disabled. * Disabling of the fan speed, air direction, and timer operation can be set for the PAC-SF50AT, PAR-36MA, PAR-F30ME, and PAC-YT52CR models.	◎	○
Room temperature display	Displays the suction temperature of the indoor unit.	—	○
Error display	Displays the current error content together with the address.	—	◎
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	◎	○
Energy management	Displays the power consumption* or operating hours. * Requires an optional part.	—	◎
Ventilator operation (solo)	Group operation can be possible for free plan Lossnay units only. * The above group operation mode includes auto ventilation, heat exchange, and normal ventilation.	◎	○
Ventilator operation (interlocked)	Free plan Lossnay units and indoor units can be interlocked and operated together. * At this point, air volume can be operated but the ventilation mode cannot be selected.	◎	○
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following. Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input. Pulse signal: Batch ON/OFF or Operation Disable/Enable * Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA). Of the above inputs, only one input can be selected.	□	—
External output (error output, operation output)	Using the level signal, ON/OFF and Error/Normal are output. *Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA).	—	□
Web browser	Monitor/operation, failure, filter sign monitoring, schedule setting, interlocked control setting (option), energy saving control setting (option), energy saving peak cut setting (option), set temperature range restrictions, other	◎ *1	◎ *1
Filter reset	Filter sign reset	○	○
Connectable location	Centralized system transmission line: Connectable Recommended Indoor and outdoor transmission line: Connectable	—	—

* The functions and specifications differ depending on the connected equipment and model.
* Electric energy can be proportionally divided using the EW-50E alone.
But the apportioned electricity charge function requires an AE-200E or TG-2000A.

■Connectable equipment: Free plan direct expansion system air conditioner
Inverter air conditioner for facility
Package air conditioner for facility (the AW control model can be connected using an M control compatible indoor unit)
A Control Mr. Slim (Can be connected using an M-NET adapter or special outdoor unit)
Kirigamine room air conditioner (Requires a system control interface or M-NET control interface)
Free plan Lossnay/Lossnay with heating and humidification
Independent humidification unit *2
Environmental measuring controller, metering measurement controller, general interface

■Notes
* 1. Some items do not support the multi group setting and display.
* 2. Use only items for which the unit has the function.

System Structure



Functions

□ : Each unit ○ : Each group ● : Each block △ : Each floor ◎ : Collective × : Not available

Item	Description	Operations	Display
Controllable number of unit	Up to 50 units/50 groups		
ON/OFF	ON and OFF operation for the air conditioning units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	○ ◎ △ ●	○ ◎
Operation mode	Switches between several operation modes depending on the air conditioning unit. Air conditioning unit : Cool/Dry/Auto(*)/Fan/Heat LOSSNAY unit : Heat Recovery/Bypass/Auto CAHV, CRHV, Air To Water (PWFY) units : Heating, Heating ECO, Hot Water, Anti-freeze, Cooling(**) * Auto mode is for CITY MULTI R2 and WR2 series only. ** Only PWFY	○ ◎ △ ●	○
Temperature setting	Cool/Dry : 19°C (67°F) -35°C (95°F) [14°C (57°F) -30°C (87°F)] Heat : 4.5°C (40°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] Auto : 19°C (67°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] The range of temperature depends on the air conditioning unit. [ ] in case of using middle-temperature on PDFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	○ ◎ △ ●	○
Fan speed setting	Models with 4 air flow speed settings : Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings : Hi/Mid/Low Models with 2 air flow speed settings : Hi/Low Fan speed setting (including Auto) varies depending on the model.	○ ◎ △ ●	○
Air flow direction setting	Air flow direction angles, 4-angles or 5-angles Swing, Auto (Louver cannot be set)	○ ◎ △ ●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○ ◎ △ ●	○
Permit/prohibit local operation	Individually prohibits operation of each local remote controller function. (ON/OFF, Operation mode, Set temperature, Filter sign reset, Air Direction*, Fan Speed*, Timer*) * This function depends on the model.	○ ◎ △ ●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	○
Error	When an error is currently occuring on an air conditioning unit, the afflicated unit and the error code are displayed.	×	□ ◎
Test run	This operates air conditioning units in test run mode.	○ ◎ △ ●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○ ◎ △ ●	○
External input/output	By using optional external input/output adapter (PAC-YG10HA-E) you can set and monitor the following. Input : By level signal : "Batch ON/OFF", "Batch emergency stop" By pulse signal : "Batch ON/OFF", "Enable/disable local remote controller" Output : "ON/OFF", "Error/Normal"	◎	◎
Energy Management	Bar Graph : Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily and monthly. Line Graph : Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA and temp. from AHC.	×	□ ○ ●
Advanced HVAC Controller (AHC)	The status of AHC can only be monitored.	×	○
New Smart ME contoroller	The status of sensor on this controller can be monitored.	×	○
Smartphone/Tablet	The specified Web browser on iOS and Android OS can monitor and operate AE-200E. *1	○	○
New Web design	The web screen design is renewed for user friendly interface. *1	○ ◎ △ ●	○
Initial setting software	The initial setting can be configured without the connection of AE-200E. *1	×	×
Apportionment of power consumption	Apportionment of power consumption can be calculated on AE-200 without TG-2000A. *1	●	□ ●
BACnet® communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL. *1	○	×

*1. Please contact your local distributor for when the feature is supported.

New Centralised Remote Controller

Flexible management ranging from tenant management to centralized management of small scale buildings

►MAIN FEATURES

Available as the expansion controller for AE-200E

Connecting three EW-50E units to an AE-200E makes it possible to operate and monitor a maximum of 200 indoor units.

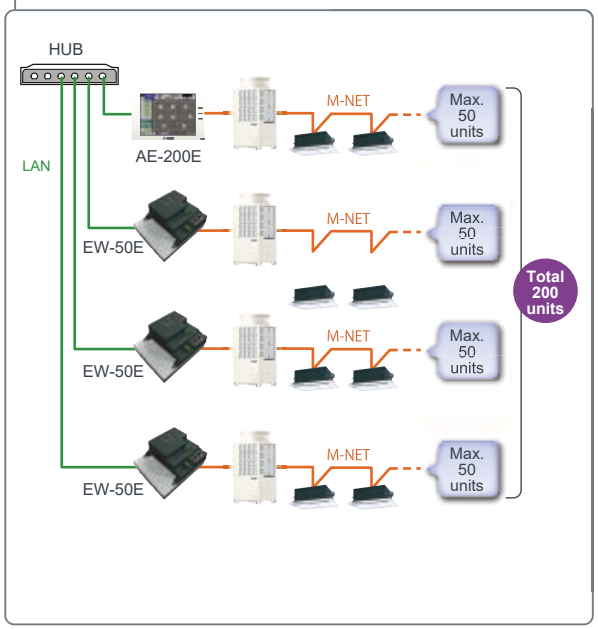
Apportioned electricity charge function

The amount of power consumed by the air conditioners is calculated with the use of AE-200E. The calculated data can be output to the PC via USB memory or LAN, and the charge report can be created with the use of the designated charge calculation tool.

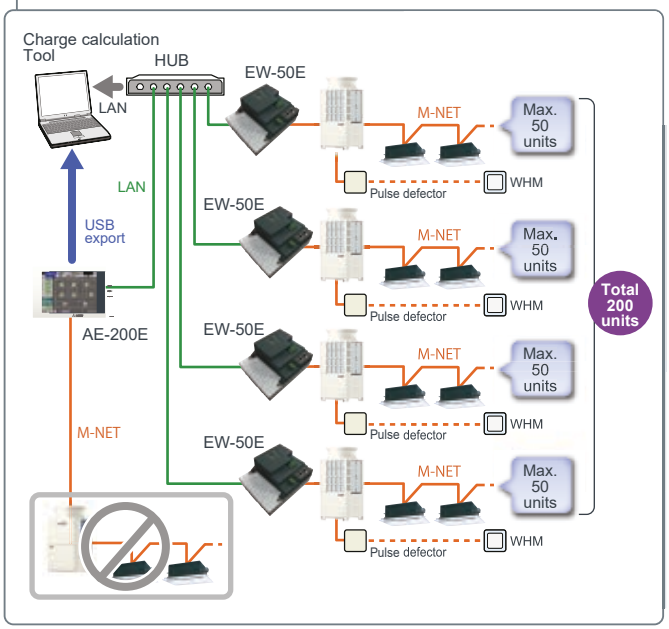
*The apportioned electricity charge function on AE-200E and TG-2000A cannot be used together.
*To use the apportioned electricity charge function on AE-200E, check that the version of TG-2000A is 6.60 or later, even if the electricity charge function on TG-2000A is not used.
*For other restrictions, refer to the Installation Manual and Instruction Book.

[System Structure]

System diagram (standard)



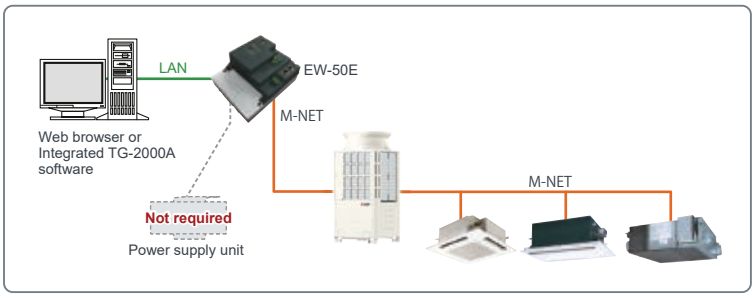
System diagram (with charge setting)



* When M-NET of AE-200E is not used, a maximum of four EW-50E units can be connected.

Enabled to operate and monitor air conditioners independently by using a PC

Even without an AE-200E, EW-50E is possible to monitor and operate air conditioners using a browser software*1. Via the Internet, air conditioners can be monitored and operated from a remote location. In addition, air conditioners in multiple buildings can be operated collectively.*2



* 1. The operation of this product has been confirmed on Internet Explorer 8, IE9, IE10, and IE11, and on Oracle® Java Ver8.
Microsoft® Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.
Oracle® and Java® are trademarks or registered trademarks of Oracle Corporation, its subsidiaries, and related companies in the United States or other countries.
Company names and product names in this brochure may be trademarks or registered trademarks of the respective rights holder.
* 2. When connecting an EW-50E via the Internet, do not directly connect the EW-50E to the Internet.
Instead, always connect via a router via a VPN function that can ensure security.
To monitor the indoor units connected to EW-50E, use TG-2000A of Ver. 6.60 or later.

Manage air conditioner usage conditions

It is possible to use a web browser to display the energy consumption of air conditioners in an easy-to-understand manner.

Operable without the transmission line power supply unit

Because the EW-50E unit is equipped with a power supply function, power supply from a transmission line power supply unit is not necessary.
Since power supply from an outdoor unit is also not necessary, self-sustained operation is possible even when the outdoor unit system goes down. (If the power consumption factor exceeds 1.5, a power supply unit is required.)

Energy-saving control

By adding an energy-saving control license (optional product), the set temperature can be changed automatically*1 based on the room temperature surrounding each air conditioner. Therefore, energy-saving control is possible without affecting comfort greatly.

* 1. This function changes the set temperature in units of +2°C for cooling and -2°C for heating by the specified time interval.
If the difference between the suction temperature and the set temperature is significant, it is possible to exclude it from the energy-saving subject.

►FUNCTIONS

* The functions and specifications are subject to change.

: By group or multiple groups : By group □: Batch only

Item	Remarks	Setting	Display
ON/OFF	Switches to ON or OFF air conditioners and general equipment.	◎	◎
Operation mode switching	Switches to cool, dry, auto, fan, or heat operation. * Depending on the unit, some modes are not available.	◎	○
Room temperature setting	The temperature can be set in the following range. The values inside the parenthesis are for indoor units for medium temperature. * Depending on the model, the setting temperature range differs. · Cooling/dry : 19°C to 35°C (4.5°C to 30°C) · Heating : 17°C to 28°C (17°C to 28°C) · Auto : 19°C to 28°C (17°C to 28°C)	◎	○
Set temperature 0.5°C increments	The temperature can be set and displayed in 0.5°C increments. * With some unit combinations, the temperature is set in 1°C increments.	◎	○
Fan speed setting	The fan speed can be set to 4 levels, 3 levels, 2 levels or automatic. * Available fan speeds differ depending on the unit.	◎	○
Air direction setting	Fixed swing in five levels or auto air direction can be set. * Available air directions differ depending on the unit.	◎	○
Prohibition of local remote controller operation	It is possible to disable the ability to use to local remote controller to run or stop, the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation. * In the Lossnay group, only ON/OFF and filter reset can be disabled. * Disabling of the fan speed, air direction, and timer operation can be set for the PAC-SF50AT, PAR-36MA, PAR-F30ME, and PAC-YT52CR models.	◎	○
Room temperature display	Displays the suction temperature of the indoor unit.	—	○
Error display	Displays the current error content together with the address.	—	◎
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	◎	○
Energy management	Displays the power consumption* or operating hours. * Requires an optional part.	—	◎
Ventilator operation (solo)	Group operation can be possible for free plan Lossnay units only. * The above group operation mode includes auto ventilation, heat exchange, and normal ventilation.	◎	○
Ventilator operation (interlocked)	Free plan Lossnay units and indoor units can be interlocked and operated together. * At this point, air volume can be operated but the ventilation mode cannot be selected.	◎	○
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following. Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input. Pulse signal: Batch ON/OFF or Operation Disable/Enable * Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA). Of the above inputs, only one input can be selected.	□	—
External output (error output, operation output)	Using the level signal, ON/OFF and Error/Normal are output. *Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA).	—	□
Web browser	Monitor/operation, failure, filter sign monitoring, schedule setting, interlocked control setting (option), energy saving control setting (option), energy saving peak cut setting (option), set temperature range restrictions, other	◎ *1	◎ *1
Filter reset	Filter sign reset	○	○
Connectable location	Centralized system transmission line: Connectable Recommended Indoor and outdoor transmission line: Connectable	—	—

* The functions and specifications differ depending on the connected equipment and model.
* Electric energy can be proportionally divided using the EW-50E alone.
But the apportioned electricity charge function requires an AE-200E or TG-2000A.

■Connectable equipment: Free plan direct expansion system air conditioner
Inverter air conditioner for facility
Package air conditioner for facility (the AW control model can be connected using an M control compatible indoor unit)
A Control Mr. Slim (Can be connected using an M-NET adapter or special outdoor unit)
Kirigamine room air conditioner (Requires a system control interface or M-NET control interface)
Free plan Lossnay/Lossnay with heating and humidification
Independent humidification unit *2
Environmental measuring controller, metering measurement controller, general interface

■Notes
* 1. Some items do not support the multi group setting and display.
* 2. Use only items for which the unit has the function.

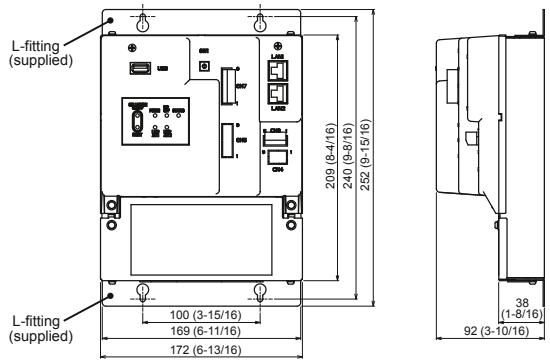
SPECIFICATIONS

Item	Description		
No. of indoor units that can be connected and controlled	Up to 50 units*1 per EW-50E		
Monitoring/operation	Web-based monitoring and operation, or monitoring and operation through the AE-200E LCD display		
Product dimensions	209 mm (H) ×172 mm (W) × 92 mm (D)		
Power supply	AC100 to AC240V (50/60Hz)		
Power feeding coefficient	1.5		
Communication I/F	Power supply from the main unit (power supply switching connector: CN40)		
	M-NET/LAN (100BASE-TX)		
Operating environment	Temperature	-10 to 55°C	
	Humidity	30 to 90% RH (Non-condensing)	
Installation conditions	Only in a metal control box Note: For indoor installation only*2		
Housing material	Electro-galvanized steel sheet		
Applicable wire size	Power supply, ground	Recommended type: VCT, VVF, VVR or its equivalent Wire size: 2mm² or more (Ø1.6mm or more)	
	M-NET	2-core cable with shielded wire CPEVS: Ø1.2mm to Ø1.6mm CVVS: 1.25mm² to 2mm²	

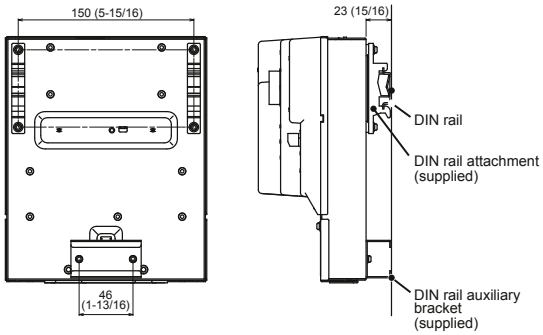
*1. Depending on the indoor unit model used, the maximum number of units that can be managed may be less. If the DIDO controller (PAC-YG66DCA) is used, the number of units is less due to the number of channels provided. (1ch corresponds to one managed unit.)
*2. The product should be used in a business office environment, or the equivalent.

EXTERNAL DIMENSIONS

■ When using L-fittings



■ When using DIN rail



Advanced HVAC Controller

PAC-IF01AHC-J + PLC

Dimensions: 116(W) x 90(H) x 40(D) mm
: 4-9/16(W) x 3-1/2(H) x 1-9/16(D) in.

Advanced HVAC Controller (hereafter referred to as AHC) comprises of Mitsubishi Electric's AHC Adapter (PAC-IF01AHC-J) and α2 Simple Application Controller* (hereafter referred to as ALPHA2).

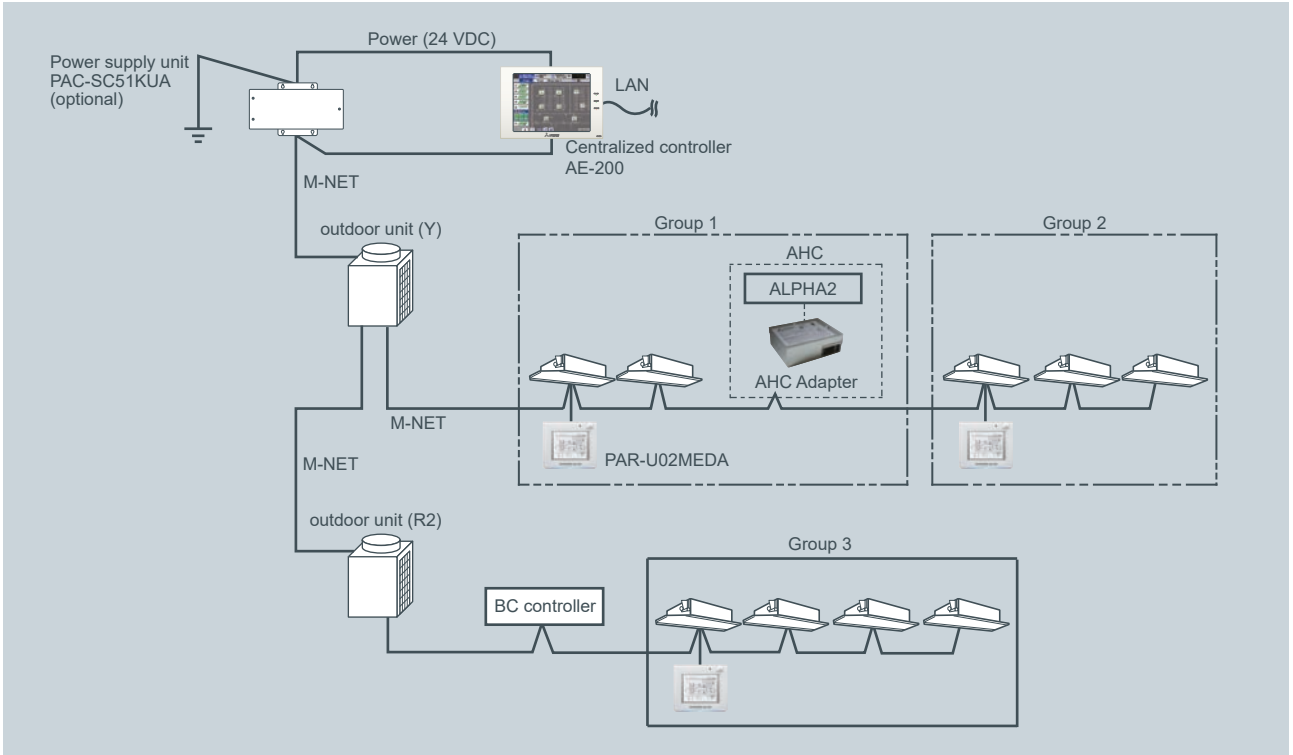
*α2 Simple Application Controller is one of the Programming Logic Controllers that are manufactured by Mitsubishi Electric Corporation.

AHC allows for the connection of Mitsubishi Electric's air conditioning network system (hereafter referred to as M-NET) to other systems, which was not possible with the use of ALPHA2 alone. AHC provides the following functions.

① Controls external devices using the sensor data of the air conditioning units connected to M-NET.
② Interlocks the operation of air conditioning units and external devices that are connected to ALPHA2.
③ Controls air conditioning units that are connected to M-NET.
④ Allows for the combined use of the items ①-③ above.
⑤ Monitors the input/output status of ALPHA2 via a remote controller or a centralised controller.

* Refer to the manual that came with ALPHA2 for information about ALPHA2.
* The use of AHC ADAPTER requires either a remote controller or a centralised controller.

System Structure



Energy Monitoring Control

PI Controller PAC-YG60MCA

Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

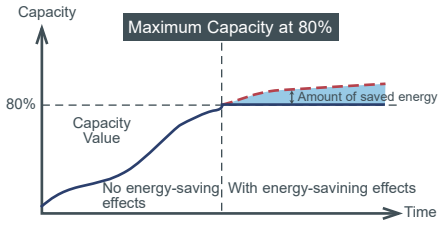
No more PLCs are needed!
Our new PI controller makes it possible to perform energy saving without PLC, which is cost saving.
Maximum of 4 measurement meter (WHM, gas meter, water meter, calorie meter) can be connected to the PI controller and can be used also for charge calculation.
*24 VDC power needs to be provided on site.

Energy Saving Control (Peak Cut)

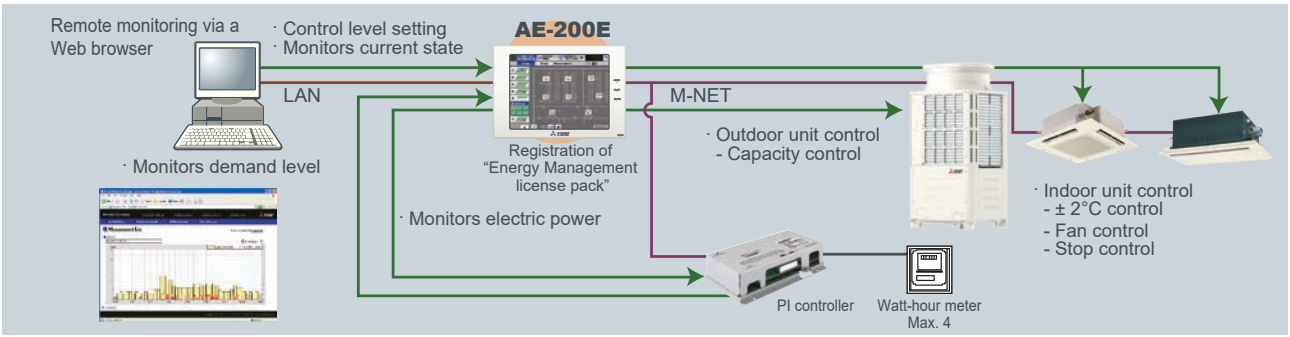
Enables Energy Saving Control with the use of our new PI controller. (Registration of "Energy Management license pack" is required.)

To perform energy saving, the capacity of the outdoor unit is controlled.

*Please note that when using an energy saving control, there are no warranties to failures such as usage over the contracted electricity.



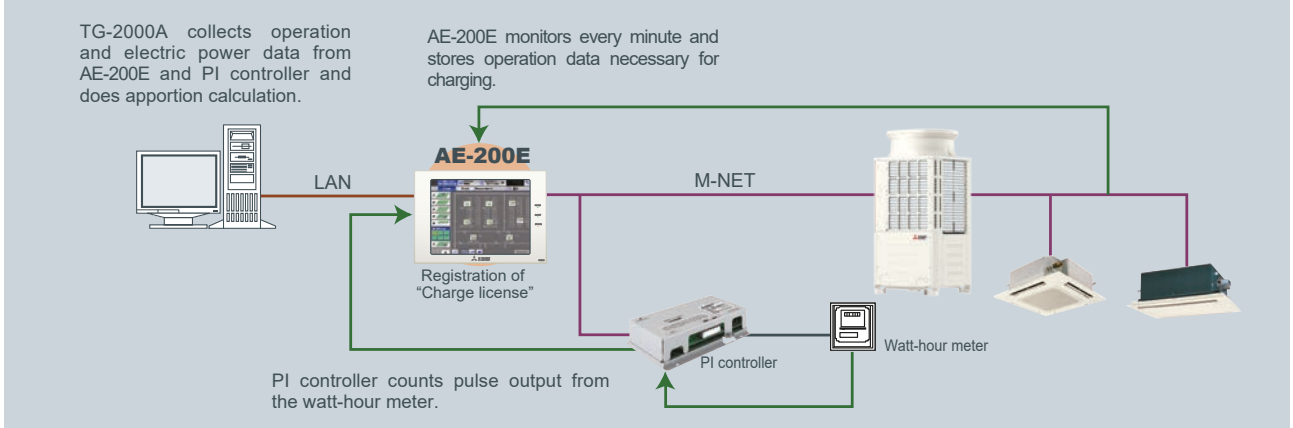
System Structure



Charge Calculation

Enables charge calculation for each tenant and output as CSV file

System Structure



General
Equipment Control

DIDO Controller PAC-YG66DCA

Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

No more PLCs are needed!
Our new DIDO controller makes it possible to control general-purpose equipment without PLC, saving costs.
Up to 6 general-purpose equipment can be connected to the DIDO controller.
*24 VDC power needs to be provided on site.

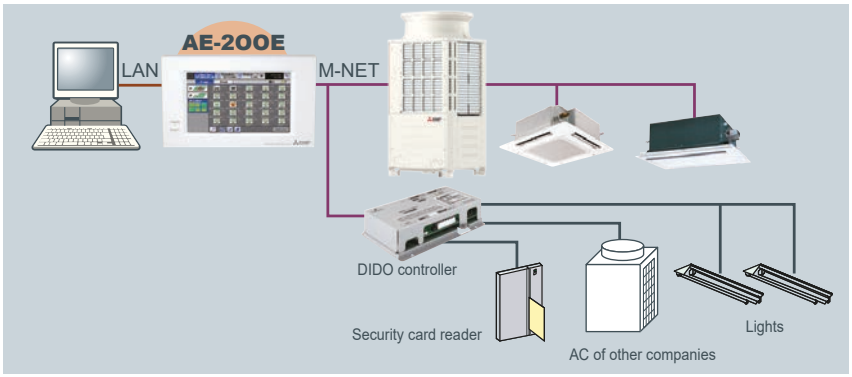
General-purpose equipment control

Enables control and monitoring of equipment other than air conditioners (air conditioners of other companies, lights, ventilators, etc.)

- In addition to above, the air conditioners can be interlocked with general-purpose equipment
  E.g. Interlock between indoor units and security system
- The indoor units can be turned ON/OFF when the security system is activated/deactivated

Icon display (Lights)

System Structure



AI Controller PAC-YG63MCA

Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

Our new AI controller makes it possible to monitor the values measured by the temperature/humidity sensor connected to the AI controller.
The AI controller has two input and two output channels.
*24 VDC power needs to be provided on site.

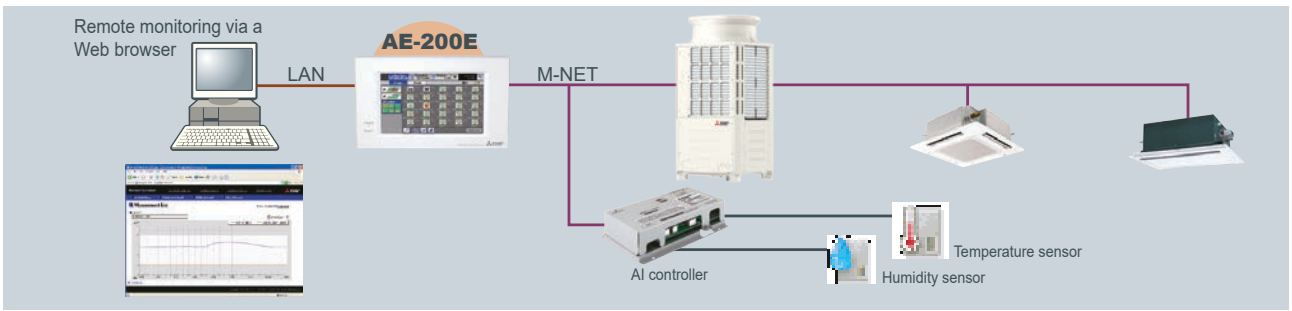
Temperature/Humidity Monitoring

Monitors the values measured by the temperature/humidity sensor connected to the AI controller

Temperature : Pt100, 4 to 20mA DC, 1 to 5 VDC, 0 to 10 VDC
Humidity : 4 to 20mA DC, 1 to 5 VDC, 0 to 10 VDC

- Trend displays of measurement data can be shown on a Web browser
- An alarm can be output by e-mail when measurement data exceeds a preset upper or lower limit

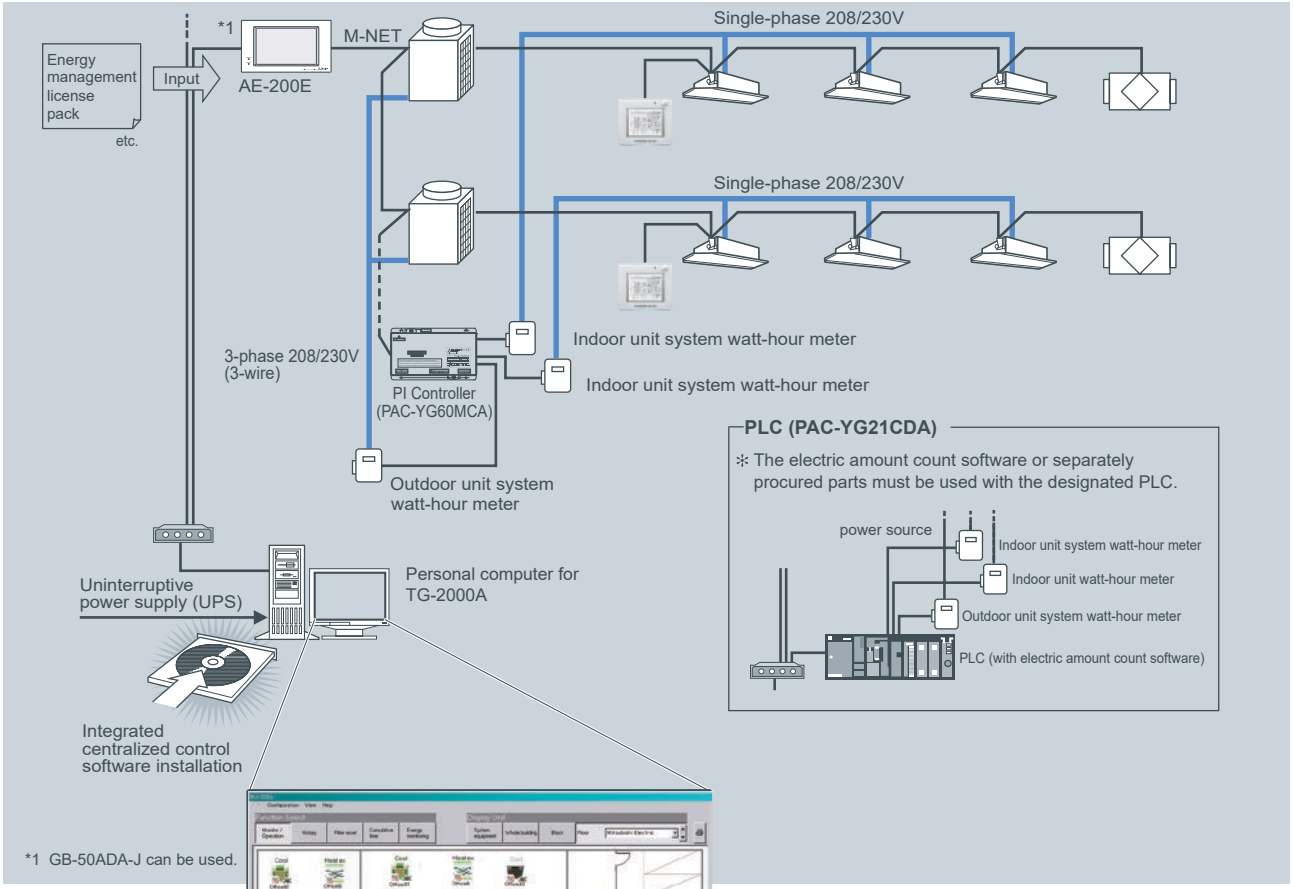
System Structure

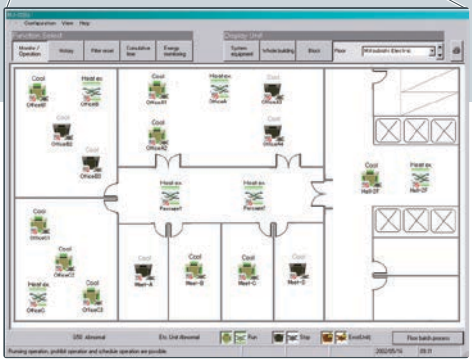


TG-2000 Computer

Integrated centralised control software TG-2000A

Example of Basic System Configuration





The air conditioning layout can be displayed on the screen, making control and operation easier.

Effective use of TG-2000A

Multiple air conditioning charges in multiple buildings can be calculated. The power apportionment percentage data and apportioned power rate can be calculated for each unit, and can be output as a CSV file.

For example, installing TG-2000A to the system in the headquarters makes it possible to control AG-150A/GB-50ADA-J units that are used in branch offices.

BMS Interface Modules

LonWorks® (LMAP04)

CITY MULTI can easily combine into a Building Management System (BMS) via the LonWorks® and M-NET adapter LMAP04. LonWorks® is an opened transmission protocol widely used at BMS, and related equipment control.
CITY MULTI is therefore compatible with large-scaled BMS management via LonWorks®.

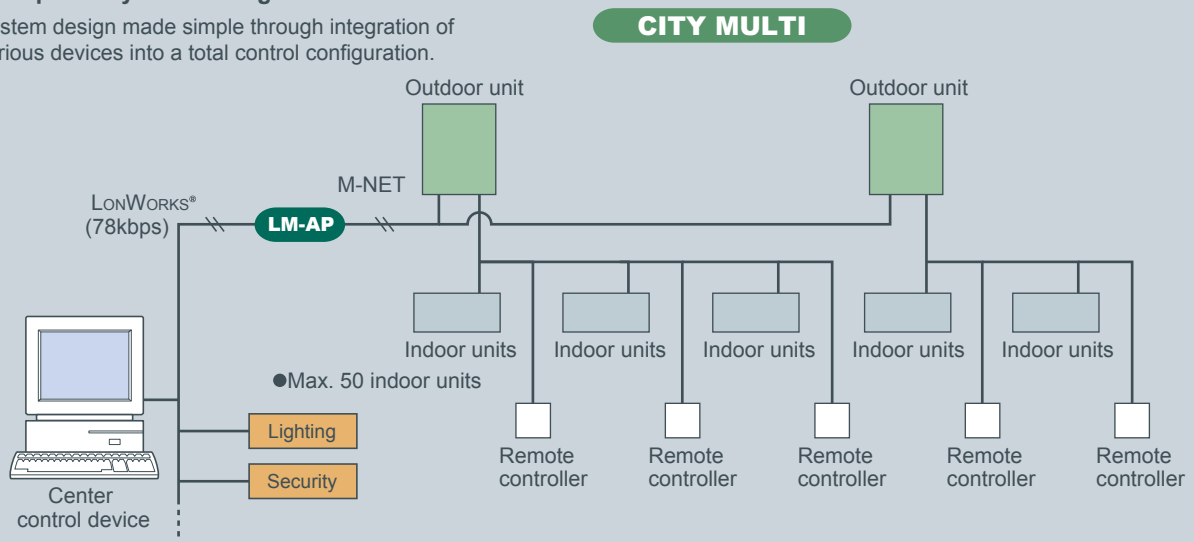
One LM ADAPTER unit can connect up to 50 Groups/50 indoor units.
Using a single LonWorks® adapter (LM-AP), you can connect up to a maximum of 50 indoor units.

LM-AP
LMAP04

Protocol converter between LonWorks® and M-NET

Example of System Configuration

System design made simple through integration of various devices into a total control configuration.



LonWorks®
The building management system is connected to the CITY MULTI air conditioning system using LonWorks®, which is widely used on field networks, allowing for an open network and savings in construction to face.

LonWorks® INTERFACE

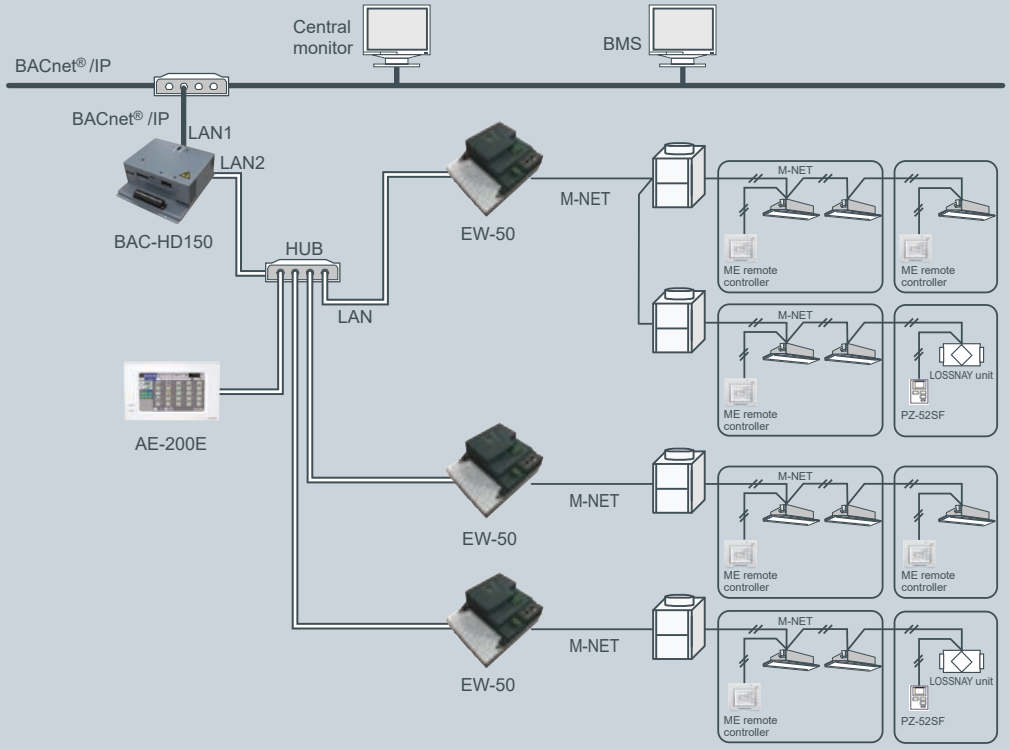
FUNCTION	CONTENT
Control	
ON/OFF	Run/Stop
Mode Operation	Cooling/Drying/Heating/Auto/Fan/Setback
Setpoint Adjustment	Cooling 19-35°C, Heating 4.5-28°C, Auto 19-28°C
Fan Speed Control	Lo-Mi1-Mi2-Hi
Permit/Prohibit	ON/OFF, Mode, Setpoint
Emergency Stop	-
Monitoring	
ON/OFF	Run/Stop
Mode	Cooling/Drying/Heating/Auto/Fan/Setback
Setpoint	Cooling 19-35°C, Heating 4.5-28°C, Auto 19-28°C
Fan Speed	Lo-Mi1-Mi2-Hi
Permit/Prohibit	ON/OFF, Mode, Setpoint
Alarm State	Normal/Abnormal
Room Temperature	-10°C~50°C
Thermo ON/OFF	ON/OFF

BACnet® (BAC-HD150)

CITY MULTI can easily combine into a Building Management System (BMS) via the BACnet® and M-NET adapter BAC-HD150. BACnet® is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS management via BACnet®.

BAC-HD150 can control up to 50 units/groups (including LOSSNAY).
Up to 150 units/groups (including LOSSNAY) can be controlled from one BAC-HD150 with three expansion controllers. (50 units/EW-50)
When the dual-set-point function is used, no expansion controllers can be connected, and only up to 50 units/groups can be controlled from each BAC-HD150.

System example (Connection of 150 units / groups with EW-50)



BACnet® and M-NET adapter

FUNCTION	CONTENT
Operation	
ON/OFF	Run/Stop
Mode	Cool/Dry/Heat/Auto/Fan/Setback
Fan Speed	Low-Mid1-Mid2-Hi
Airflow Direction	Horizontal- 60°-80°-100°swing
Set Temperature	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]
Filter Sign Reset	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.
Forced OFF	Release/Effective
Monitoring	
ON/OFF	Run/Stop
Mode	Cool/Dry/Heat/Fan/Setback
Fan Speed	Low-Mid1-Mid2-Hi
Air Direction	Horizontal- 60°-80°-100°swing
Set Temperature	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]
Filter Sign	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.
Indoor Temperature	-
Alarm Signal	Normal/Abnormal
Error Code	2 Character code- Indicates all unit alarms
Communication State	Normal/Abnormal

Product Information

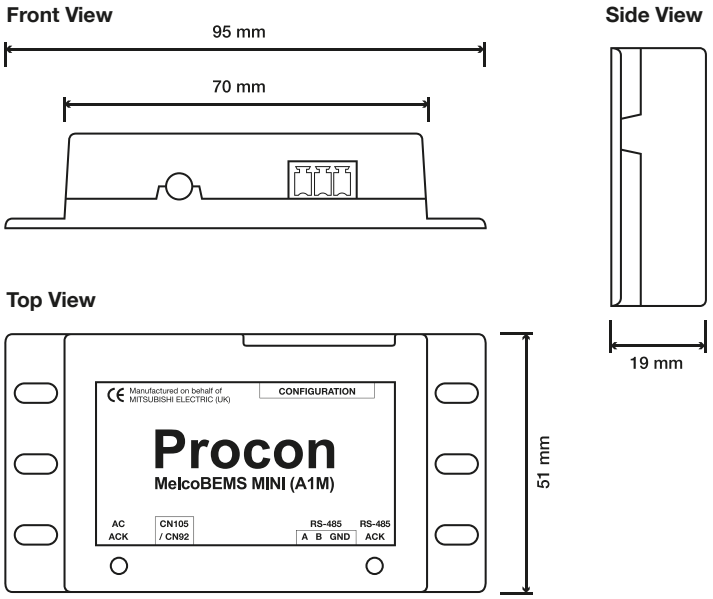
MELCOBEMS MINI
BEMS Interface

Making a World of Difference

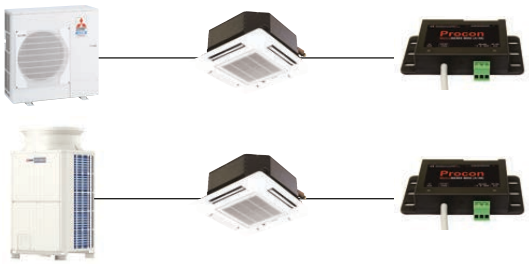
BEMS INTERFACES		MELCOBEMS MINI	
Description		Air to Air Splits Modbus/BACnet Interface. Air (Water) to Water Modbus Interface	
Connect to		Indoor	
Max Number of Units		1	
Compatibility		M Series, Mr Slim, Ecodan FTC4/5, CAHV, CRHV	
Power Supply		-	
Dimensions (mm) (WxDxH)		70 x 19 x 50	
Network		Modbus / BACnet RS485	
BEMS Compatibility		Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, RDM	
Control		Air to Air Splits	Air (Water) to Water
	On/Off	DI	AI
	Mode	AI	AI
	Setpoint	AI	AI
	Fan Speed	AI	-
	Air Direction	AI	-
	Permit/Prohibit	x	AI
	Filter Sign	DI	-
Monitor	On/Off	DO	DO
	Mode	AO	AO
	Setpoint	AO	AO
	Fan Speed	AO	-
	Air Direction	AO	-
	Permit/Prohibit	x	AO
	Filter Sign	DO	-
	Fault Codes	AO	AO
	Room Temperature	AO	AO
	Daily kW Energy	-	AO
	Monthly kW Energy	-	AO

Key: DI = Digital Input. DO = Digital Output. AI = Analogue Input. AO = Analogue Output.

DIMENSIONS



SYSTEM DIAGRAM



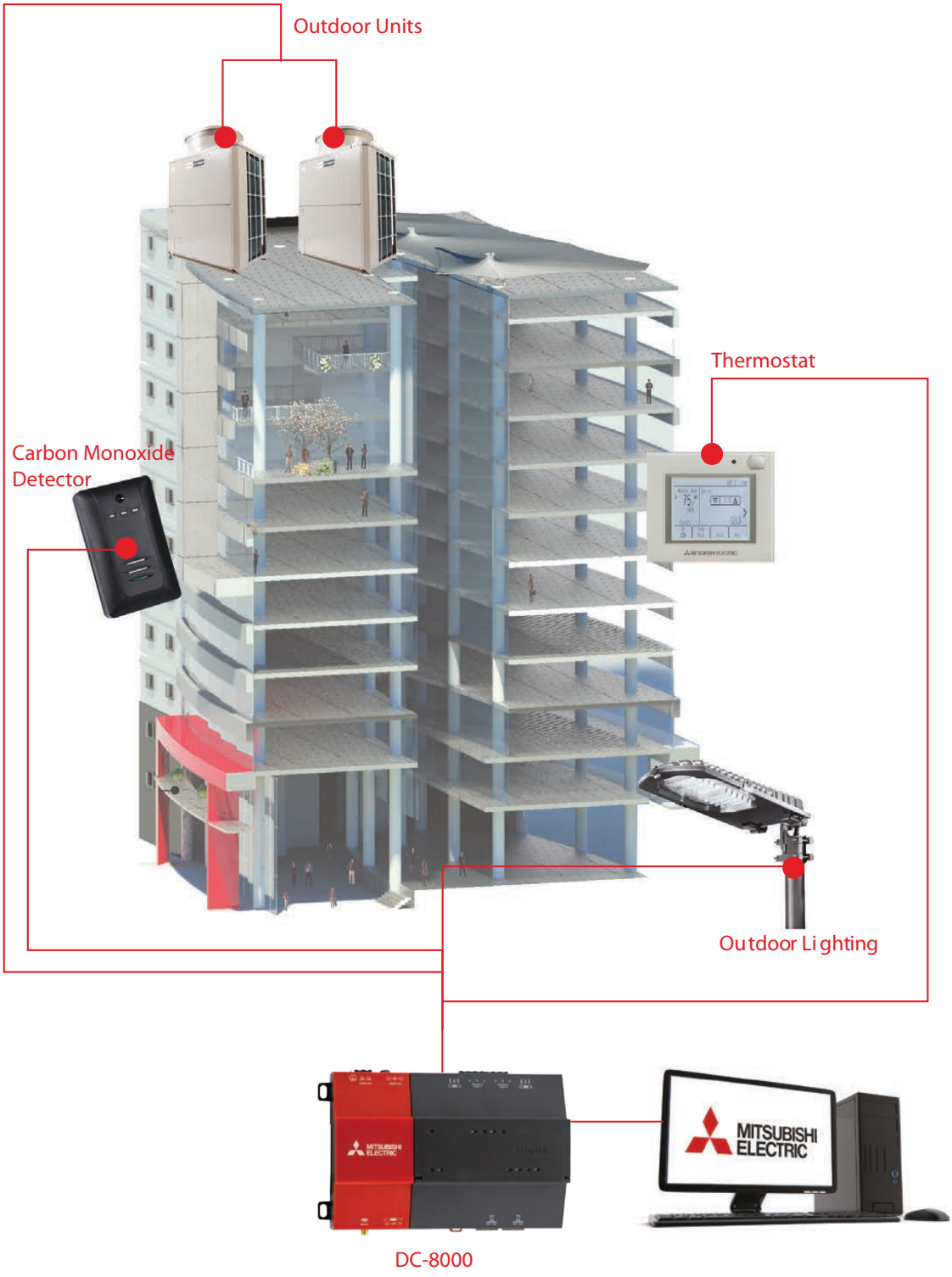
Note: Power supply provided by connected Indoor unit. No additional power supply required.

Black Diamond Controls

Building Management & Control System

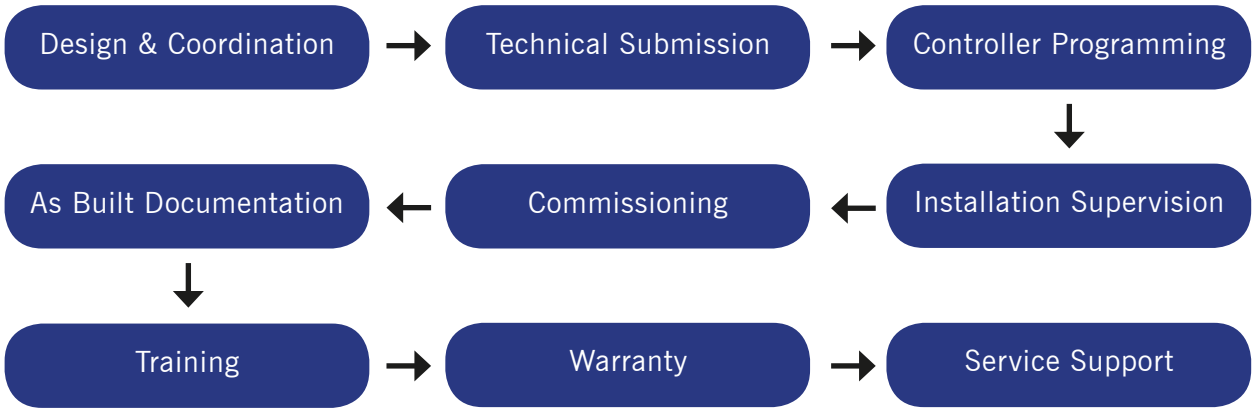
Building Management & Control System

Black Diamond Controls is a specialised bundled and seamless building controls solution. Powered by the industry leading Niagara Framework®, designed to integrate diverse building systems and devices into one seamless networked solution.



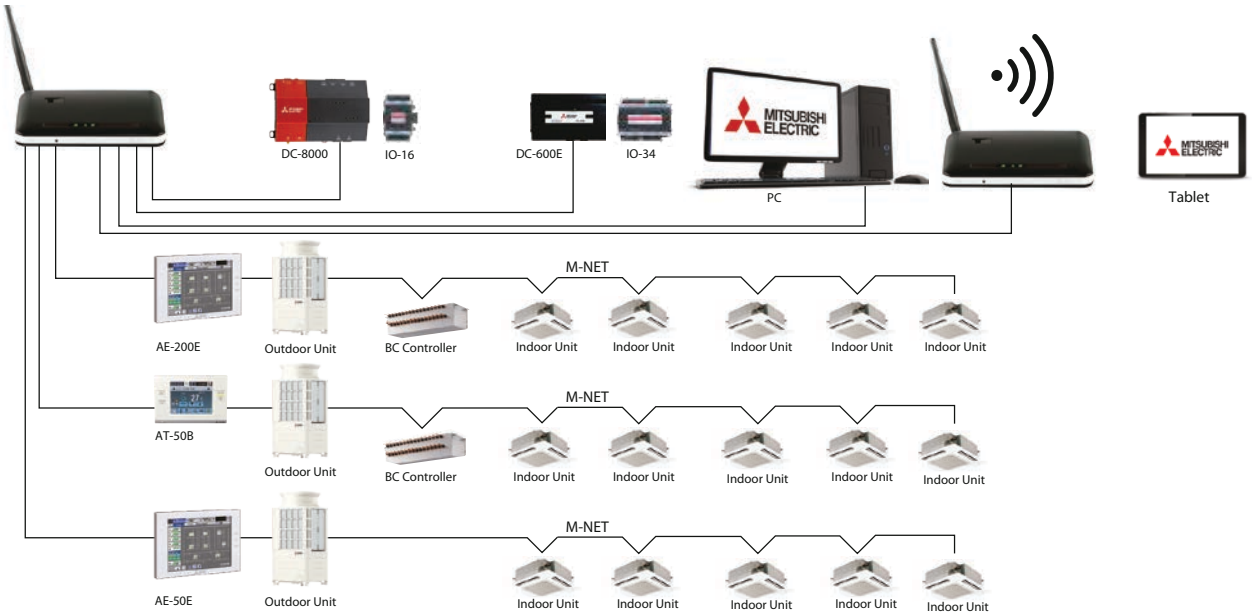
Customisable Solution

Many aspects must be considered when developing and commissioning an effective Building Management System that meets project requirements. Black Diamond Controls provide not only quality hardware and an industry leading integration platform, but also service solutions that go far beyond what is traditionally offered. Black Diamond Controls are involved in all aspects of a project as outlined in the diagram below.



Integration with Mitsubishi Electric Air Conditioning Systems

Black Diamond Controls enables advanced integration with Mitsubishi Electric Air Conditioning units via an exclusive interface, providing a single point of access to control and monitor the system. Controlling numerous systems through a single centralised user interface reduces the time it takes to make necessary adjustments and allows expanded capabilities.



Black Diamond Controls

Mitsubishi Electric DC-8000™ Controller

A compact, internet-ready controller and server platform.

Built with Niagara4 technology, the DC-8000™ Controller utilises the latest version of Tridium's Niagara Framework®. The new interface and platform streamlines Internet of Things (IoT) connectivity and includes advanced visualization, new search capabilities, security and navigation tools.

Developed to provide integrated control, supervision, data logging, alarming, scheduling and network management, the DC-8000™ connects multiple, diverse devices and sub-systems. The controller is ideal for any size facility thanks to the scalability of the Niagara platform. Facility managers will find the controller's integration features useful, since it allows for control of multiple systems within a building, including HVAC, lighting energy and more.

Features:

- Multiple protocol support including LonWorks™, BACnet™, Modbus®, legacy systems and so much more
- Exclusive Mitsubishi Electric M-NET driver
- Improved HTML5 web user interface
- Improved security
- Scalable deployment
- Energy Management capabilities
- Integration to with multiple systems including electrical, hydraulic, security and more.
- Interrogation is via a standard Web Browser with no additional software required.

Mitsubishi Electric DC-PRO Supervisor:

- The Mitsubishi Electric DCPro is a flexible network server for all connected DC-8000™ stations
- Harnesses the power of the Internet of Things to provide efficient integration of standard open protocols
- Creates a powerful network environment with comprehensive database management functionality, alarm management and messaging services

Optional Parts

OPTIONAL PARTS FOR INDOOR UNITS

>>4-way cassette type (PLFY-VBM/VFM)

Description	Model	Applicable capacity	
		VBM	VFM
Decoration panel	SLP-2FA (L) (E)	–	P15, P20, P25, P32, P40, P50
	PLP-6BA	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
Automatic Filter Elevation Panel	PLP-6BAJ	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
Multi-functional casement	PAC-SH53TM-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
High-efficiency filter element	PAC-SH59KF-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
Wireless signal receiver	PAR-SA9FA-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
	PAR-SF9FA-E	–	P15, P20, P25, P32, P40, P50
Space panel	PAC-SH48AS-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
"i-see" sensor corner panel	PAC-SA1ME-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
	PAC-SF1ME-E	–	P15, P20, P25, P32, P40, P50
Duct flange for fresh air intake	PAC-SH65OF-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–
Shutter plate	PAC-SH51SP-E	P20, P25, P32, P40, P50, P63, P80, P100, P125	–

>>2-way cassette type (PLFY-VLMD)

Description	Model	Applicable capacity
Decoration panel	CMP-40VLW-C	P20, P25, P32, P40
	CMP-63VLW-C	P50, P63
	CMP-100VLW-C	P80, P100
	CMP-125VLW-C	P125
OA duct flange	PAC-KH11OF	P20, P25, P32, P40, P50, P63, P80, P100

>>1-way cassette type(PMFY-VBM)

Description	Model	Applicable capacity
Decoration panel	PMP-40BM	P20, P25, P32, P40

>>Ceiling concealed type (PEFY-VMH(S))

Description	Model	Applicable capacity		Remarks
		VMH(S)-E	VMH-E2	
Drain pump	PAC-KE04DM-F	P200, P250 (VMH-E)	-	
	PAC-KE05DM-F	P200, P250 (VMHS-E)	-	
	PAC-DRP10DP-E	-	P40~P140	
Long life filter	PAC-KE86LAF	-	P40, P50, P63	
	PAC-KE88LAF	-	P71, P80	
	PAC-KE89LAF	-	P100, P125, P140	
	PAC-KE85LAF	P200, P250	-	
Filter box	PAC-KE63TB-F	-	P40, P50, P63	Necessary when long life filter is used
	PAC-KE99TB-F	-	P71, P80	
	PAC-KE140TB-F	-	P100, P125, P140	
	PAC-KE250TB-F	P200, P250	-	

>>Ceiling concealed type (PEFY-VMA(L)/VMA3)

Description	Model	Applicable capacity	
		VMA(L)	VMA3
Filter box	PAC-KE91TB-E	P20, P25, P32	–
	PAC-KE92TB-E	P40, P50	P20
	PAC-KE93TB-E	P63, P71, P80	–
	PAC-KE94TB-E	P100, P125	–
	PAC-KE95TB-E	P140	–

>>Fresh air intake type (PEFY-VMH(S)-E-F)

Description	Model	Applicable capacity
Long life filter	PAC-KE88LAF	P80
	PAC-KE89LAF	P140
	PAC-KE85LAF	P200, P250
Filter box	PAC-KE80TB-F	P80
	PAC-KE140TB-F	P140
	PAC-KE250TB-F	P200/P250
Drain pump	PAC-KE04DM-F	P80, P140, P200, P250
Drain pump	PAC-KE06DM-F	P125, P200, P250

>>Ceiling suspended type (PCFY-VKM)

Description	Model	Applicable capacity
Drain pump kit	PAC-SH83DM-E	P40
	PAC-SH84DM-E	P63,100,125
High efficiency filter	PAC-SH88KF-E	P40
	PAC-SH89KF-E	P63
	PAC-SH90KF-E	P100,125
Wireless remote controller kit	PAR-SL94B-E	P40,63,100,125

>>Ceiling concealed type (PEFY-VMS1(L))

Description	Model	Applicable capacity	
Drain pump	PAC-KE07DM-E	P15, 20, 25, 32, 40, 50, 63	*For PEFY-VMS1L only
Control box replace kit	PAC-KE70HS-E	P15, 20, 25, 32, 40, 50, 63	

>>Wall mounted type (PKFY-VBM/VHM/VKM)

Description	Model	Applicable capacity
External LEV Box	PAC-SG95LE-E	P15, 20, 25, 32, 40, 50, 63
Drain pump kit	Micro Blue	P15, 20, 25, 32
	Mini Blue	P32, 40, 50, 63
	Maxi Blue Pro	P100

OPTIONAL PARTS FOR OUTDOOR UNITS

For Y series (PUHY)

Description	Model	Remarks
Relay Box	PAC-PH01KTY-E	Relay box should be used together with Panel heater
Panel heater	PAC-PH01EHT-E	For S module
	PAC-PH02EHT-E	For L module
	PAC-PH03EHT-E	For XL Modele
Twinning kit	CMY-Y100VBK3	For PUHY-(E)P400~(E)P650YSNW-A
	CMY-Y200VBK2	For PUHY-(E)P700~(E)P900YSNW-A
	CMY-Y300VBK3	For PUHY-(E)P950~(E)P1350YSNW-A
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below(Total capacity of indoor unit)
	CMY-Y102LS-G2	201-400(Total capacity of indoor unit)
	CMY-Y202S-G2	401-650(Total capacity of indoor unit)
	CMY-Y302S-G2	651-above(Total capacity of indoor unit)
Branch pipe (Header)	CMY-Y104-G	For 4 branches
	CMY-Y108-G	For 8 branches
	CMY-Y1010-G	For 10 branches
Fin Guard	PAC-FG01S-E	For side surfaces of S and L modules (a set of two pieces)
	PAC-FG02S-E	For side surfaces of XL modules (a set of two pieces)
	PAC-FG01B-E	For rear surface of S module
	PAC-FG02B-E	For rear surface of L module
	PAC-FG03B-E	For rear surface of XL module

For R2 series (PURY)

Description		Model	Remarks
Relay Box		PAC-PH01KTY-E	Relay box should be used together with Panel heater
Panel heater		PAC-PH01EHT-E	For S module
		PAC-PH02EHT-E	For L module
		PAC-PH03EHT-E	For XL Modele
Twinning kit		CMY-R100VBK4	For PURY-(E)P400~(E)P650YSNW-A
		CMY-R200VBK4	For PURY-(E)P700~(E)P1100YSNW-A
For BC controller	2-Branch Joint Pipe	CMY-Y102SS-G2	200 or below(Total capacity of indoor unit)
		CMY-Y102LS-G2	201-400(Total capacity of indoor unit)
	Joint and Reducer	CMY-R201S-G	350 or below(Total capacity of indoor unit)
		CMY-R202S-G	351-600(Total capacity of indoor unit)
		CMY-R203S-G	601-650(Total capacity of indoor unit)
		CMY-R204S-G	651-1000(Total capacity of indoor unit)
		CMY-R205S-G	1001 or above(Total capacity of indoor unit)
		CMY-R101S-G	For P200-P650 Outdoor unit
		CMY-R102S-G	For P700-P1100 Outdoor unit
	Reducer	CMY-R301S-G	For CMB-P104,106,108,1012,1016V-J (When the outdoor unit capacity is P200 to P300)
		CMY-R302S-G	For CMB-P108,1012,1016V-JA (When the outdoor unit capacity is P200 to P900)
		CMY-R303S-G	For CMB-P108,1012,1016V-JA and for use with sub BC controller
		CMY-R304S-G	For CMB-P1016V-KA(When the outdoor unit capacity is P200 to P1000)
		CMY-R305S-G	For CMB-P1016V-KA and for use with sub BC controller
		CMY-R306S-G	For CMB-P104V-KB
	Branch pipe(Header)	CMY-R160-J1	Joint for connecting to two nozzles
Fin Guard		PAC-FG01S-E*	For side surfaces of S and L modules (a set of two pieces)
		PAC-FG02S-E*	For side surfaces of XL modules (a set of two pieces)
		PAC-FG01B-E	For rear surface of S module
		PAC-FG02B-E	For rear surface of L module
		PAC-FG03B-E	For rear surface of XL module

Note : When installing on 38HP model, please refer to DATABOOK.

OPTIONAL PARTS FOR OUTDOOR UNITS

>>For PUMY series

Description	Model
Branch Pipe (2 Branch)	CMY-Y62-G-E
Header	CMY-Y64-G-E
Header	CMY-Y68-G-E
Drain Socket	PAC-SG61DS-E
Centralized Drain Pan	PAC-SH97DP-E
Port Connector (ø9.52 → ø12.7)	PAC-SG73RJ-E
Port Connector (ø15.88 → ø19.05)	PAC-SG75RJ-E
Air Protect Guide (2 pcs required)	PAC-SH95AG-E
Air Outlet Guide	PAC-SH96SG-E

>>For PQHY series

Description	Model	Remarks
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201~400 (Total capacity of indoor unit)
		The 1st branch of P250-P300YLM
	CMY-Y202S-G2	401~650 (Total capacity of indoor unit)
		The 1st branch of P350-P600YLM / P400-P600YSLM
	CMY-Y302S-G2	651 or above (Total capacity of indoor unit)
		The 1st branch of P700-P900YSLM
Branch pipe (Header)	CMY-Y104-G	For 4 branches
	CMY-Y108-G	For 8 branches
	CMY-Y1010-G	For 10 branches
Twinning kit	CMY-Y100VBK3	For PQHY-P400~P600YSLM
	CMY-Y200VBK2	For PQHY-P700~P900YSLM

>>For PQRY series

Description	Model	Remarks
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201~400 (Total capacity of indoor unit)
Twinning kit	CMY-Q100CBK2	For PQRY-P400~P600YSLM
	CMY-Q200CBK	For PQRY-P700~P900YSLM

Installation Information

1. General Precautions

1-1. Usage

- The air conditioning systems described in this catalogue are designed and intended for human comfort, and are not designed for the preservation of food, animals, plants, precision equipment or art objects. Do not use the product for any purpose other than what it is designed for.
- Due to the risks associated with water leakage and electric shock, do not use the product for air conditioning vessels or vehicles.

1-2. Installation Environment

- Do not install the unit in an environment where the voltage fluctuates, or in commercial kitchen areas where large amounts of mineral oil (e.g. cutting oil) are present, or large amounts of steam are produced.
- Do not install the unit in an acidic or alkaline environment.
- Do not install the unit in locations which are exposed to chlorine or other corrosive gases. Avoid installation near sewers.
- To reduce the risk of fire, do not install the unit in a place where flammable gas may be leaked or inflammable material is present.
- This air conditioning unit has a built-in microcomputer, which must be considered when choosing the installation position as the unit may interfere with antenna or other electronic devices in the immediate area. It is recommended that the unit should be installed at a distance from these devices.
- The unit should be installed on a solid foundation according to local safety measures associated with extreme weather, wind gusts and earthquakes to prevent the unit from tipping or falling and incurring damage.

1-3. Backup System

- For air conditioning installations where a malfunction could exert critical influence, it is recommended that two or more systems of single outdoor with multiple indoor units are used as backup.

1-4. Unit Characteristics

- In areas where the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor unit will tend to collect frost, which can affect heating performance. To remove the frost, Auto-defrost function will be activated which will temporarily stop the heating mode for up to several minutes. Heating mode will automatically resume upon completion of the defrost process.
- Heat pump air conditioners require time to warm an entire room immediately after heating operation begins, requiring the indoor unit to circulate warm air to the entire space.
- The sound levels referred to in this catalogue were obtained from test results performed in an anechoic room. The sound levels during actual operation may vary from the simulated results due to ambient noise and acoustic characteristics of the room. Refer to the section “Sound Levels” in the Data Book for the actual measurement location.
- Depending on operating conditions, the unit can generate noise caused by valve actuation, refrigerant flow, and pressure changes during normal operation. It is not recommended that a BC controller is installed in locations where quietness is required (such as bedrooms).
- The total capacity of the connected indoor units can be greater than the capacity of the outdoor unit. However, when the indoor units operate simultaneously, each unit’s capacity may be reduced below the rated capacity.
- When the unit is started up for the first time within 12 hours after power on or after power failure, it will perform an initial start-up operation (capacity control operation) to prevent damage to the compressor. The initial start-up operation requires 90 minutes maximum to complete, depending on the operation load.

1-5. Relevant Equipment

- Use an earth leakage breaker (ELB) with medium sensitivity, and an activation speed of 0.1 seconds or less.
- Consult your local distributor or a qualified technician when installing an earth leakage breaker.
- Inverter air conditioners and heat pump units require an earth leakage breaker suitable for handling high harmonic waves and surges.
- Leakage current is generated not only through the air conditioning unit but also through the power wires. Therefore, the leakage current of the main power supply is greater than the total leakage current of each unit. Take into consideration the capacity of the earth leakage breaker or leakage alarm when installing one at the main power supply. To accurately measure the leakage current on site, use a measurement tool equipped with a filter, and clamp all four power wires together. The leakage current measure on the ground wire may not be accurate due to the leakage current from other systems being included in the measurement value.
- Do not install a phase advancing capacitor on a unit which is connected to the same power system as an inverter type unit and its equipment.
- If a large current is produced by either a product malfunction or faulty wiring, both the earth leakage breaker on the product as well as the upstream overcurrent breaker may trip simultaneously. Separate the power system or coordinate all the breakers according to the system's priority levels.

1-6. Unit Installation

- Consult your local distributor or a qualified technician to carry out installation of the unit. Installation by an unqualified person may result in water leakage, electric shock, or fire.
- Your local distributor or a qualified technician must carefully read the Installation Manual that is provided with each unit before carrying out installation work.
- Ensure there is adequate space around each unit's installation site.

1-7. Optional Accessories

- Only use accessories recommended by Mitsubishi Electric. Consult your local distributor or a qualified technician for installation. Installation by an unqualified person may result in water leakage, electric shock, or fire.
- Some optional accessories may not be compatible with the unit to be used, or may not be suitable for the installation conditions. Check the compatibility when considering any accessories.
- Note that some optional accessories may affect the unit's external appearance, weight, operating sound and other performance characteristics.

1-8. Operation/Maintenance

- Read the Instruction Book provided with each unit carefully before use.
- Maintenance or cleaning of each unit may be risky and therefore may require expertise. Refer to the Instruction Book to ensure safety. Consult your local distributor or a qualified technician when special expertise is required (such as when the indoor unit requires cleaning).

2. Precautions for Indoor Unit

2-1. Operating environment

- The refrigerant (R410A) used for air conditioners is non-toxic and nonflammable. However, if the refrigerant leaks, the oxygen level may drop to harmful levels. If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant should leak.
- If the units operate in the cooling mode at the humidity above 80%, condensation may collect and drip from the indoor units.

2-2. Unit Characteristics

- The return air temperature displayed on the remote controller may differ from the ones on the other thermometers.
- The clock on the remote controller may be displayed with a time lag of approximately one minute every month.
- The temperature using a built-in temperature sensor on the remote controller may differ from the actual room temperature due to the effect of the wall temperature.
- Use a built-in thermostat on the remote controller or a separately-sold thermostat when indoor units installed on or in the ceiling operate the automatic cooling/heating switchover.
- The room temperature may rise drastically due to Thermo OFF in the places where the air conditioning load is large such as computer rooms.
- Be sure to use a regular filter. If an irregular filter is installed, the unit may not operate properly, and the operation noise may increase.
- The room temperature may rise over the preset temperature in the environment where the heating air conditioning load is small.

2-3. Unit Installation

- For simultaneous cooling/heating operation type air conditioners (R2, WR2 series), the J-type BC controller cannot be connected to the P350 outdoor unit model or above, and the JA-type BC controllers cannot be connected to the 28HP model or above. The KB-type BC controllers (sub) cannot be connected to the outdoor unit directly, and be sure to use them with JA- and KA-type BC controllers (main).
- The insulation for low pressure pipe between the BC controller and outdoor unit shall be at least 20 mm thick. If the unit is installed on the top floor or in a high-temperature, high-humidity environment, thicker insulation may be necessary.
- Do not have any branching points on the downstream of the refrigerant pipe header.
- When a field-supplied external thermistor is installed or when a device for the demand control is used, abnormal stops of the unit or damage of the electromagnetic contactor may occur. Consult your local distributor for details.
- When indoor units operate a fresh air intake, install a filter in the duct (field-supplied) to remove the dust from the air.
- The 4-way or 2-way Airflow Ceiling Cassette Type units that have an outside air inlet can be connected to the duct, but need a booster fan to be installed at site. Refer to the chapter "Indoor Unit" in the Data Book for the available range for fresh air intake volume.
- Operating fresh air intake on the indoor unit may increase the sound pressure level.

3. Precautions for Fresh Air Intake Type Indoor Unit

3-1. Usage

- This unit mainly handles the outside air load, and is not designed to maintain the room temperature. Install other air conditioners for handling the air conditioning load in the room.

3-2. Unit Characteristics

- This unit cannot perform the drying operation. The unit will continue the fan operation and blow fresh air (air that is not air-conditioned) when the Heating Thermo-OFF or Cooling Thermo-OFF mode is selected.
- The fan may stop tentatively when the unit is connected to the simultaneous cooling/heating operation type outdoor unit (R2, WR2 series) or during the defrost cycle.
- This unit switches the Thermo ON or OFF depending on the room temperature. The outside air is directly supplied into the room during Thermo OFF. Take caution of the cold supply air due to low outside air temperature and of condensation in the room due to high humidity of the outside air.
- Outside air temperature ranges for the operation must be as follows:

  Cooling: 21ºCD.B./15.5ºCW.B. ~ 43ºCD.B./35ºCW.B.

  Heating: -10ºCD.B.~ 20ºCD.B

  The unit is forced to operate Thermo OFF (fan operation) when the outside air temperature is as follows.

  Cooling: 21ºCD.B or below; Heating: 20ºCD.B or above
- Either a remote controller (sold separately) or a remote sensor (sold separately) must be installed to monitor the room temperature.
- If only this unit is used as an indoor unit, condensation may form at the supply air grill while the unit is operated in the cooling mode. This unit cannot operate dehumidifying.
- Use the unit in the way that the airflow rate will not exceed the 110% of the rated airflow.

4. Precautions for Outdoor Unit / Heat Source Unit

4-1. Installation Environment

- Outdoor units with salt-resistant specification are recommended in coastal areas or regions subject to salt air.
- Outdoors with salt-resistant specification are still not entirely protected against all forms of corrosion. Be sure to follow the directions and precautions outlined in the Instruction Manual and Installation Manual for correct maintenance. The salt-resistant specification adheres to the guidelines published by JRAIA (JRA9002).
- Install the unit in a place where discharge airflow is unobstructed. Obstruction of airflow may result in the short-cycling of discharge air.
- Ensure proper drainage is provided around the unit base to avoid condensation and/or water build-up. Water-proof protection should be applied to the floor when installing units on rooftops.
- In regions subject to snow and ice, install the unit so that the outlet faces away from the prevailing wind direction and install a snow guard to protect the unit from snow. Refer to the installation manual for the snow guard and take care when installing to avoid the risk of corrosion to the outdoor unit. The unit should be mounted on a base approximately 50cm higher than region's average snowfall. Close the openings for pipes and wiring, as the ingress of water and small animals or insects may cause equipment damage.
- Ensure the snow guard is kept free of snowfall exceeding 50cm.
- If the unit is expected to operate continuously for extended periods at outside air temperatures of 0°C or less, it is recommended to use a base heater to prevent ice build-up on the unit base (not applicable to PUMY series).
- Provide proper protection around outdoor units in places such as schools to avoid the risk of injury.
- A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere. If a tank is installed to ensure the circuit has enough water, minimise the contact with outside air so that the oxygen being dissolved in the water is 1mg/L or less.
- Install a strainer (50 mesh or more is recommended) on the water pipe inlet on the heat source unit.
- Interlock the heat source unit and water circuit pump.
- Note the following to prevent frozen burst pipes when the heat source unit is installed in an area where the ambient temperature can drop to 0°C or below:
  - o Keep the water circulating to prevent it from freezing when the temperature is 0°C or below.
  - o If the system is to be out of use for long periods, ensure water is purged from the unit.

4-2. Circulating Water

- Check the quality of the water in the heat source unit regularly, following the guidelines published by JRAIA (JRA-GL02-1994).
- A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere. If a tank is installed to ensure the circuit has enough water, minimise the contact with outside air so that the oxygen being dissolved in the water is 1mg/L or less.

4-3. Unit Characteristics

- Frequently repeating the Thermo ON and OFF on the indoor unit may destabilise the operating status of the outdoor unit.

4-4. Relevant Equipment

- Provide grounding in accordance with local regulations.

5. Precautions for Control-Related Items

5-1. Product Specification

- A consultation with BDT is required before installation of the MELANS system, particularly if the electricity charge apportioning function or energy-save function is to be utilised.
- The billing calculation for the AE-200E, AE-50E, AG-150A, EW-50E, GB50ADA-J and TG2000A, as well as the calculation unit is based on a unique Mitsubishi Electric method which includes backup operation. The calculation is not based on a metering method, and does not include the input power consumption, and therefore should not be used for official business purposes. Note that the electric power consumption for the air conditioner is apportioned using the ratio corresponding to the operation status (output) of each indoor unit in this calculation method.
- In the apportioned billing function for the AE-200E, AE50E, AG-150A, EW-50E and GB-50ADA-J, use separate watt-hour meters for A-control units, K-control units and packaged air conditioners for City Multi systems. It is recommended that an individual watt-hour meter is used for large-capacity indoor units (with two or more addresses).
- When using the energy-saving (peak cut) function on the AE-200E, AE-50E, AG-150A, EW-50E or GB-50ADA-J, note that control is performed once per minute and therefore it may take some time to notice its full effect. Take appropriate measures such as lowering the criterion value. Power consumption may exceed limits if AE-200E, AE-50E, AG-150A, EW-50E or GB-50ADA-J malfunctions or stops. A back-up solution should be available if necessary.
- The controllers cannot operate when the unit is OFF (no error). Ensure the power is ON to the indoor unit when operating the controllers.
- The interlocked control function on the AE-200E, AE50E, AG-150A, EW-50E, GB-50ADA-J, PAC-YG66DCA-J or PAC-YG63MCA should not be used for the control of fire prevention or security, or any situation where it is primarily responsible for the protection of people’s safety. Additional protection that allows ON/OFF operation using an external switch may be required in case of failure.

5-2. Installation Environment

- Surge protection for the transmission line may be required in areas susceptible to lightning strikes.
- Receivers for wireless remote controllers may be affected by lighting within the room. Leave a space of at least 1m between lighting sources and the receiver.
- When operating the auto-elevating panel using a wired remote controller, ensure the wired remote controller is installed in an area where it is not at risk of being damaged by the descending panel. It is recommended to use a wireless remote controller designed for use with elevating panels (sold separately).
- When installing the wired remote controller (switch box), ensure the following conditions are met:

oThe installation surface is flat

oThe controller is positioned where it can detect an accurate room temperature. Install the controller in a place where:

  - it is not subject directly to a heat source (direct sunlight and indoor unit airflow will affect the accuracy of the average room temperature reading)
  - an average room temperature can be detected
  - no other wires are present near the temperature sensor

- To prevent unauthorised access, always use a security device, such as a VPN router when connecting the AE-200E, AE-50E, AG-150A, EW-50E, GB50ADA-J or TG-2000A to the internet.

Maintenance Equipment

Maintenance Cycle [Note that maintenance cycle does not mean guarantee period.]

The following tables are applicable when using equipment under the conditions below.

- Normal use without frequent START/STOPs (The number of START/STOPs is assumed to be less than 6 times per hour in normal use.)
- Operating hours are assumed to be 10 hours per day/2500 hours per year

If the following conditions are met, the equipment may not be used, or the "maintenance cycle" and "replacement intervals" may be shortened.

- When equipment is used in an environment where the temperature and humidity are high or change dramatically
- When equipment is used in an environment where the power supply fluctuations (the distortion of voltage, frequency, and waveform) are large (only within the allowable range)
- When equipment is used in an environment where the unit may be subject to vibration or mechanical shock
- When equipment is used in an environment where dust, salt, toxic gases such as sulfur dioxide and hydrogen sulfide, and oil mist are present
- When equipment starts/stops frequently and operates for a long time (24-hour air conditioning operation)

Table 1. Maintenance cycle

Major components	Checking cycle	Maintenance cycle	Major components	Checking cycle	Maintenance cycle
Compressor	1 year	20,000 hours	Expansion valve	1 year	20,000 hours
Motor (Fan, Louver, drain pump)		20,000 hours	Valve (solenoid valve, four-way valve)		20,000 hours
Bearing		15,000 hours	Sensor (thermistor, presser sensor)		5 years
Electric board		25,000 hours	Drain pan		8 years
Heat exchanger		5 years			

Note1 This table shows major components. Refer to the maintenance contract for details.
Note2 This maintenance cycle shows a period in which products are expected to require no maintenance. Use this cycle for planning maintenance (budgeting the maintenance expense etc.) Checking/Maintenance cycle may be shorter than the one on this table depending on the contents of maintenance check contract.

- Sudden unpredictable accidents may occur even if a check-up is performed

Replacement Cycle of Consumable Components [Note that replacement cycle does not mean guarantee period.]

Table 2. Replacement cycle

Major components	Checking cycle	Replacement cycle
Long-life filter	1 year	5 years
High-performance filter		1 year
Fan belt		5,000 hours
Smoothing capacitor		10 years
Fuse		10 years
Crank case heater		8 years

Note1 This table shows major components. Refer to the maintenance contract for details.
Note2 This replacement cycle shows a period in which products are expected to require no replacements. Use this cycle for planning maintenance (budgeting expenses for replacing equipments etc.)

B.S. Salt Protection Specifications
City Multi VRF Outdoor Units

Name	Base material	PUHY, PURY		Surface treatment	Paint thickness	
		YNW	YNW-BS			
		Standard	Salt damage protection		External	Internal
Bottom frame	Alloyed galvanized sheet	•	•	Polyester resin coating	70μm or more	70μm or more
Front panel	Galvanized sheet	•		Polyester resin coating	15μm or more	5μm or more
			•	Polyester resin coating	85μm or more	75μm or more
Pillar	Alloyed galvanized sheet	•		Polyester resin coating	30μm or more	
			•	Polyester resin coating	70μm or more	70μm or more
Compressor cover	Galvanized sheet	•		No treatment		
	Galvanized aluminum sheet		•	Polyester resin coating	70μm or more	70μm or more
Fin guard	Steel wires	•	•	Polyethylene resin (Weather proof)	300μm or more	300μm or more
Fan guard & Drum	Plastic	•	•	Polypropylene resin (Weather proof)		
Fan	Plastic	•	•	Acrylics nitril styrene resin		
Motor	Frame; Spcc	•	•	Zinc plating filming	8μm or more	
	Shaft; S35C	•	•	Rust prevention coloured coating		
Motor support	Galvanized sheet	•		No treatment		
			•	Polyester resin coating	70μm or more	70μm or more
Heat exchanger	Aluminum plate	•		Cellulose series and urethane series resin coating	1μm or more	
(Only fin)			•	Cellulose series and urethane series resin coating	3μm or more	
Electrical parts box	Galvanized sheet	•		No treatment		
	Galvanized aluminum sheet		•	Polyester resin coating	70μm or more	
Printed circuit board	Epoxy resin	•		Polyurethane coating	10μm or more	
			•	Polyurethane coating	10μm or more	10μm or more
Screw	Steel for screws	•	•	Zinc-nickel alloy plating + Geomet filming		

CAUTION:

1 Do not position the outdoor in a direct sea breeze.

2 Don't protect the unit from rain. (Rain will clean the salt from the coil).

3 Install the outdoor unit level to allow condensate drainage.

4 Wash the outdoor unit regularly.

5 Repair any scratches on the panels.

6 Inspect regularly. Paint or change parts as required.

FM33568 / ISO 9001;2008

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

ISO Authorization System
The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.

EC97J1227 051

The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).
Registered on March 10, 1998.

⚠ Warning

■ Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
- It may also be in violation of applicable laws.
- MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.

For more information on Mitsubishi Electric Heat Pumps, please visit **www.mitsubishi-electric.co.nz**
or call our Customer Service Team on **0800 784 382**

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