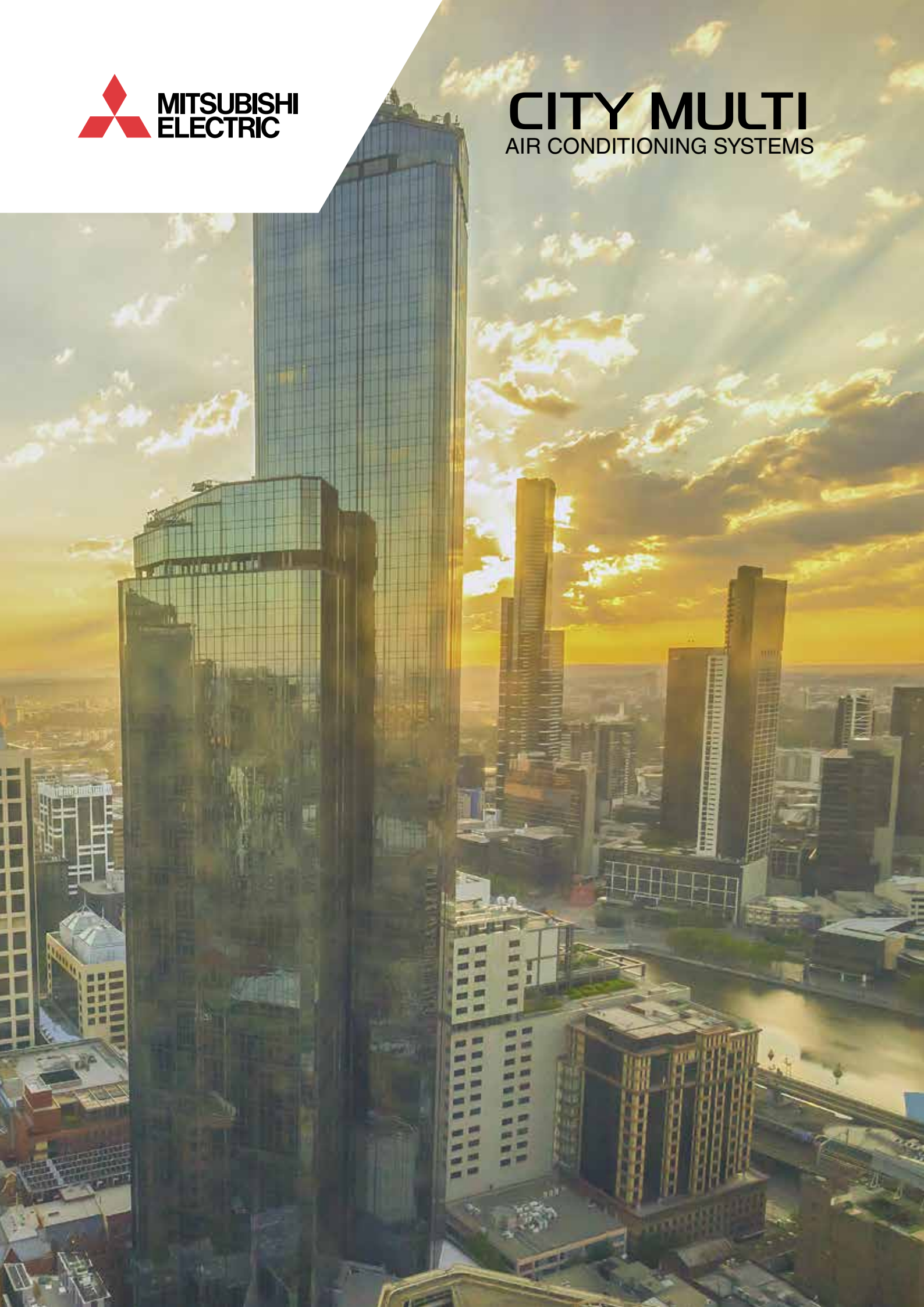
MITSUBISHI ELECTRIC

# CITY MULTI

## AIR CONDITIONING SYSTEMS



Mitsubishi Electric is a global, market leading environmental technologies manufacturer. The Living Environment Group are continually pioneering solutions that cool, heat, ventilate and control our buildings in some of the most energy efficient ways possible.

We believe that global climate challenges need local solutions. We aim to help individuals and businesses reduce the energy consumption of their buildings and their running costs.

Providing accurate and controlled comfort all year round, our air conditioning range can work on their own or in conjunction with other systems in a hybrid solution. Whatever the requirement, we offer a solution that matches the needs of almost any building.

At Mitsubishi Electric we have evolved, and today we offer advanced environmental systems that really can make a world of difference.

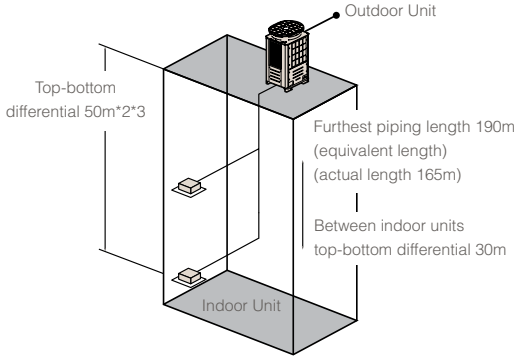

# Contents

# Line up of Air Cooled Outdoor Units

## Y SERIES

*The numbers in the table indicate the kW and the combinations of S, L, XL modules.

| AIR COOLED | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heat Pump | | | | | | | | | | | | | |
| Model | | PUHY-P YNW-A(-BS) | | | PUHY-P YSNW-A(-BS) | | | High Efficiency PUHY-EP YNW-A(-BS) | | | High Efficiency PUHY-EP YSNW-A(-BS) | | |
| | |  size S | |  size L |  size XL | | |  size S | |  size L |  size XL | | |
| Model No. | kW | S | L | XL | S | L | XL | S | L | XL | S | L | XL |
| P112 | 12.5 | | | | | | | | | | | | |
| P125 | 14.0 | | | | | | | | | | | | |
| P140 | 15.5 | | | | | | | | | | | | |
| P200 | 22.4 | 22.4 | | | | | | 22.4 | | | | | |
| P250 | 28 | 28 | | | | | | 28 | | | | | |
| P300 | 33.5 | 33.5 | | | | | | 33.5 | | | | | |
| P350 | 40 | | 40 | | | | | | 40 | | | | |
| P400 | 45 | | 45 | | 22.4/22.4 | | | | 45 | | 22.4/22.4 | | |
| P450 | 50 | | 50 | | 22.4/28 | | | | 50 | | 22.4/28 | | |
| P500 | 56 | | | 56 | 28/28 | | | | | 56 | 28/28 | | |
| P550 | 63 | | | | 28/33.5 | | | | | | 28/33.5 | | |
| P600 | 69 | | | | 33.5/33.5 | | | | | | 33.5/33.5 | | |
| P650 | 73 | | | | 28 | 45 | | | | | 28 | 45 | |
| P700 | 80 | | | | | 40/40 | | | | | | 40/40 | |
| P750 | 85 | | | | | 40/45 | | | | | | 40/45 | |
| P800 | 90 | | | | | 40/50 | | | | | | 40/13.5 | |
| P850 | 96 | | | | | 45/50 | | | | | | 45/13.5 | |
| P900 | 101 | | | | | 50/50 | | | | | | 50/50 | |
| P950 | 108 | | | | 28 | 40/40 | | | | | 28 | 40/40 | |
| P1000 | 113 | | | | 28 | 40/45 | | | | | 28 | 40/45 | |
| P1050 | 118 | | | | 28 | 45/45 | | | | | 28 | 45/45 | |
| P1100 | 124 | | | | | 40/40/45 | | | | | | 40/40/45 | |
| P1150 | 130 | | | | | 40/45/45 | | | | | | 40/45/45 | |
| P1200 | 136 | | | | | 45/45/45 | | | | | | 45/45/45 | |
| P1250 | 140 | | | | | 45/45/50 | | | | | | 45/45/50 | |
| P1300 | 146 | | | | | 45/50/50 | | | | | | 45/50/50 | |
| P1350 | 150 | | | | | 50/50/50 | | | | | | 50/50/50 | |




**System Pipe Lengths** [(P200-P1350 (Y Series)]

| Refrigerant Piping Lengths | Maximum Metres | Vertical Differentials Between Units | Maximum Metres |
|---|---|---|---|
| Total Piping Length | 1000 | Indoor/Outdoor (Outdoor Higher) | 50*2 |
| Maximum Allowable Length | 165 (190 equivalent) | Indoor/Outdoor (Outdoor Lower) | 40*3 |
| Farthest Indoor from First Branch | 40*1 | Indoor/BC Controller (Single/Main) | 15*4 |

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

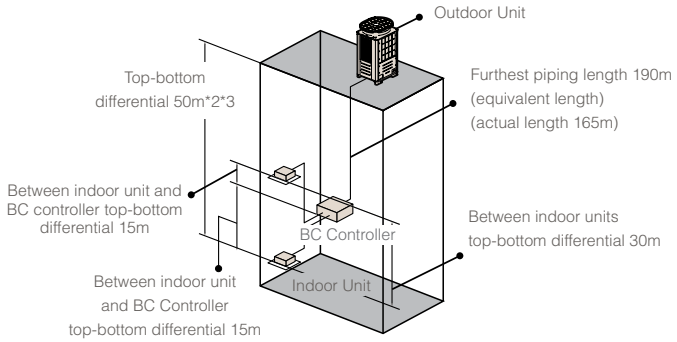
# Line up of Air Cooled Outdoor Units

## R2 SERIES

*The numbers in the table indicate the kW and the combinations of S, L, XL modules.

| AIR COOLED | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heat Recovery | | | | | | | | | | | | | |
| Model | | PURY-P YNW-A(-BS) | | | PURY-P YSNW-A(-BS) | | | High Efficiency PURY-EP YNW-A(-BS) | | | High Efficiency PURY-EP YSNW-A(-BS) | | |
| | |  size S | |  size L |  size XL | | |  size S | |  size L |  size XL | | |
| Model No. | kW | S | L | XL | S | L | XL | S | L | XL | S | L | XL |
| P200 | 22.4 | 22.4 | | | | | | 22.4 | | | | | |
| P250 | 28 | 28 | | | | | | 28 | | | | | |
| P300 | 33.5 | 33.5 | | | | | | 33.5 | | | | | |
| P350 | 40 | | 40 | | | | | | 40 | | | | |
| P400 | 45 | | 45 | | 22.4/22.4 | | | | 45 | | 22.4/22.4 | | |
| P450 | 50 | | 50 | | 22.4/28 | | | | 50 | | 22.4/28 | | |
| P500 | 56 | | | 56 | 28.0/28 | | | | | 56 | 28/28 | | |
| P550 | 63 | | | | 28.0/33.5 | | | | | | 28/33.5 | | |
| P600 | 69 | | | | 33.5/33.5 | | | | | | 33.5/33.5 | | |
| P650 | 73 | | | | 33.5 | 40 | | | | | 33.5 | 40 | |
| P700 | 80 | | | | | 40/40 | | | | | | 40/40 | |
| P750 | 85 | | | | | 40/45 | | | | | | 40/45 | |
| P800 | 90 | | | | | 45/45 | | | | | | 45/45 | |
| P850 | 96 | | | | | 45/50 | | | | | | 45/50 | |
| P900 | 101 | | | | | 50/50 | | | | | | 50/50 | |
| P950 | 108 | | | | | 50 | 56 | | | | | 50 | 56 |
| P1000 | 113 | | | | | | 56/56 | | | | | | 56/56 |
| P1050 | 118 | | | | | | 56/63*1 | | | | | | 56/63*1 |
| P1100 | 124 | | | | | | 63*/63*1 | | | | | | 63*1/63*1 |

*1 63kW (P550) can be used only in combination with others.




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

### System Pipe Lengths [P200-P1100 (R2 Series)]

| Refrigerant Piping Lengths | Maximum Metres | Vertical Variations Between Units | Maximum Metres |
|---|---|---|---|
| Total Piping Length | | Indoor/Outdoor (Outdoor Higher) | 50*3 |
| P200-300 | 550 | Indoor/Outdoor (Outdoor Lower) | 40*3 |
| P350-P550 (Single Module) | 600 | Indoor/BC Controller (Single/Main) | 15*4 |
| P400-600 | 750 | *Maximum length between single/main BC Controller and indoor is dependent upon the vertical variation between the single/main BC Controller and the indoor unit. | |
| P650 | 800 | | |
| P700-P1,100 | 1,000 | | |
| Maximum Allowable Length | 165 (190 Equivalent) | Indoor/indoor | 30*2*5 |
| Maximum Length Between Outdoor and Single/Main BC Controller | 110 | Main BC Controller/Sub-BC Controller | 15 |
| *Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller. | | | |
| BC Controller, Indoor and Sub-BC Controller*1 | 40-90 | | |

## S SERIES

| AIR COOLED | | | | | |
|---|---|---|---|---|---|
| Heat Pump | | | | | |
| Model | | PUMY-P VKM-A(-BS) | PUMY-P YKM-A(-BS) | PUMY-SP VKMD(-BS) | PUMY-SP YKMD(-BS) |
| | |  | |  | |
| Model No. | kW | Dimensions | | | |
| | | 1338 x 1050 x 370 | 1338 x 1050 x 370 | 981 x 1050 x 330 (+25) | 981 x 1050 x 330 (+25) |
| SP80 | 9 | - | - | 9 | 9 |
| P112 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| P125 | 14 | 14 | 14 | 14 | 14 |
| P140 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 |
| P200* | 22.4 | - | 22.4 | - | - |

*Available for PUMY-P Series only.

# Line up of Water Cooled Outdoor Units

*The numbers in the table indicate the kW and the combinations of S, L modules.

| WATER COOLED | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Model | | Heat Pump | | | | Heat Recovery | | | |
| | | PQHY-P YLM-A WY Series | | PQHY-P YSLM-A WY Series | | PQRY-P YLM-A WR2 Series | | PQRY-P YSLM-A WR2 Series | |
| | |  | |  | |  | |  | |
| Model No. | kW | S | L | S | L | S | L | S | L |
| P200 | 22.4 | 22.4 | | | | 22.4 | | | |
| P250 | 28 | 28 | | | | 28 | | | |
| P300 | 33.5 | 33.5 | | | | 33.5 | | | |
| P350 | 40 | | 40 | | | | 40 | | |
| P400 | 45 | | 45 | 22.4/22.4 | | | 45 | 22.4/22.4 | |
| P450 | 50 | | 50 | 22.4/28 | | | 50 | 22.4/28 | |
| P500 | 56 | | 56 | 28/28 | | | 56 | 28/28 | |
| P550 | 63 | | 63 | 28/33.5 | | | 63 | 28/33.5 | |
| P600 | 69 | | 69 | 33.5/33.5 | | | 69 | 33.5/33.5 | |
| P700 | 80 | | | | 40/40 | | | | 40/40 |
| P750 | 85 | | | | 40/45 | | | | 40/45 |
| P800 | 90 | | | | 45/45 | | | | 45/45 |
| P850 | 96 | | | | 45/45 | | | | 45/45 |
| P900 | 101 | | | | 45/45 | | | | 45/45 |

# Outdoor/Heat Source Unit

Mitsubishi Electric offers a wide range of products in order to meet air conditioning needs for both new constructions and existing buildings.

# Technologies

## INVERTER-DRIVEN COMPRESSOR TECHNOLOGY

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

All CITY MULTI compressors are of the inverter-driven type, capable of precisely matching almost any building's cooling and heating needs.

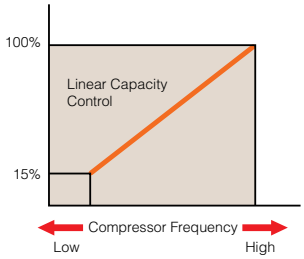
The compressor varies its speed to match the indoor cooling or heating demand and therefore only consumes the energy that is required.

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%; however 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 low starting currents (just eight amps for a 56kW outdoor unit) and smooth transition across the range of compressor frequencies.

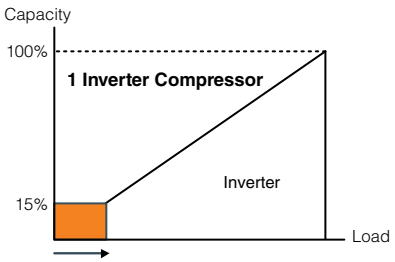
Heating / Cooling Capacity

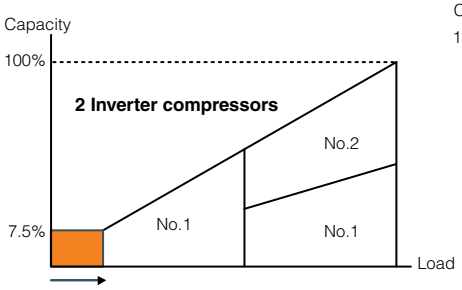


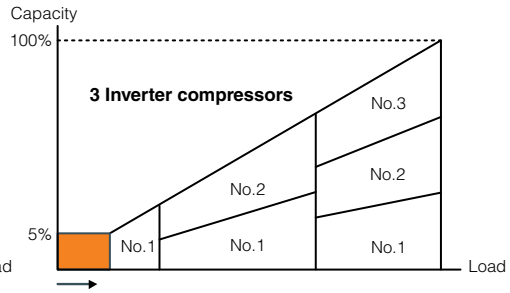

*Values vary depending on actual conditions, such as ambient temperature.

### Stable and smooth operation





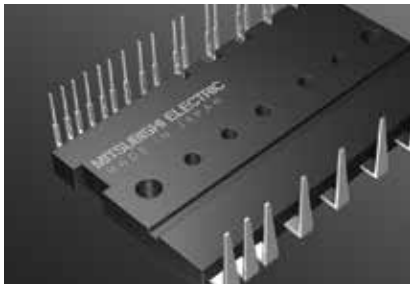




## INTELLIGENT POWER MODULE (IPM) MANUFACTURED BY MITSUBISHI ELECTRIC IS USED

Y-Series EP*1 | R2-Series EP*2 | WY-Series*3
Y-Series P*1 | R2 Series P*2 | WR2-Series*3

Power modules manufactured by Mitsubishi Electric are installed in the condenser which is the core component, as well as in the inverter circuit board that drives the fan. SiC (silicon carbide) is used in the power module equipped with a voltage-boosting circuit that raises the output voltage of the inverter to expand the operating range. This greatly reduces the power loss of the voltage-boosting circuit and helps improve the energy efficiency of the unit (EER improvement).



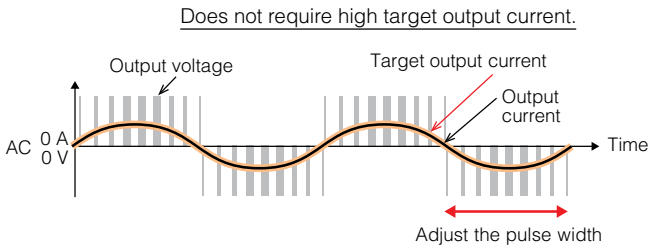
*The 56kW YNW is equipped with a voltage boosting circuit that uses SiC.

*1 IPM (condenser) is installed on 40kW to 56kW (P350 to P500) single modules, 73kW to 150kW (P650 to P1350) combination modules.
SiC elements are used in some 56kW (P500) single module IPM.
*2 IPM (condenser) is installed on 40kW to 56kW (P350 to P500) single modules, 73kW to 124kW (P650 to P1100) combination modules.
SiC elements are used in some 56kW (P500) single modules IPM.
*3 IPM (condenser) is installed on 40kW to 101kW (P350 to P900). (Excluding the 45kW to 56kW (P400 to P500) combination models.)

# PWM CONTROL

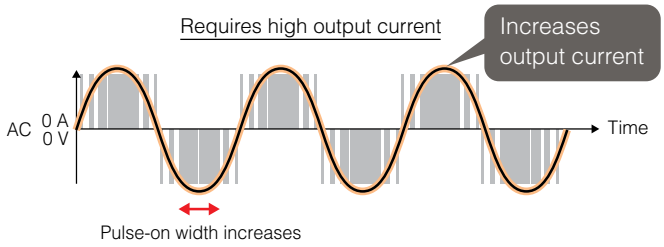
Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

PWM Control is used to control the number of motor revolutions according to the operational load, and it varies the inverter pulse width (electric signal wave occurring over a short period) to control the output. Control of the electrical current is required for optimal operation.




## For low load

To accomplish the target output current, the intervals at which the "pulse" signal is turned on are controlled to adjust the output current. At the low-load time, the pulse-on width is minimised to save energy.




## For high load

The increased pulse-on width increases both the duration that voltage is applied and the amount of electrical current compared to the low-load time, accelerating the compressor's rotation speed from 60 rps to 140 rps.*

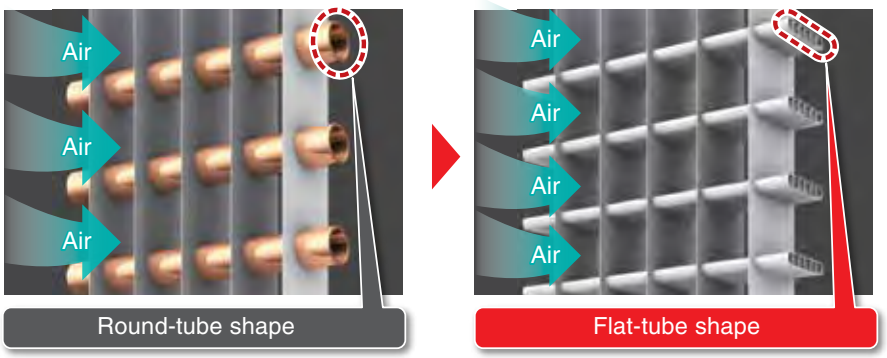
*Number of compressor rotations differs depending on the usage condition.

Adjustment of pulse range and output current to suit a given load increases the operating ability range of the unit.

# FLAT-TUBE HEAT EXCHANGER

Y-Series EP | R2-Series EP

The heat exchanger is a flat-tube heat exchanger with improved heat-exchanger efficiency. The use of flat tubes increases the number of piping stages while maintaining the same size 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 efficiency by approximately 30% compared to round-tube heat exchangers.




Approximately 30% increase in heat-exchange efficiency (compared to round-tube)

Surface area 220% increase (compared to round-tube)

# HEAT INTER-CHANGER (HIC) CIRCUIT

Y-Series EP | Y-Series P | WY-Series

The HIC circuit increases cooling efficiency. This technology raises the degree of sub-cooling, increasing both cooling capacity and cooling efficiency.

The HIC circuit is installed before the point at which the high-pressure liquid refrigerant, which has passed through the heat exchanger of the outdoor unit, flows into the indoor unit. The temperature of the liquid refrigerant, to which heat has been discharged from the outdoor unit's heat exchanger, is further lowered before the refrigerant enters the expansion valve, allowing the evaporator to absorb a large amount of heat to increase cooling efficiency.

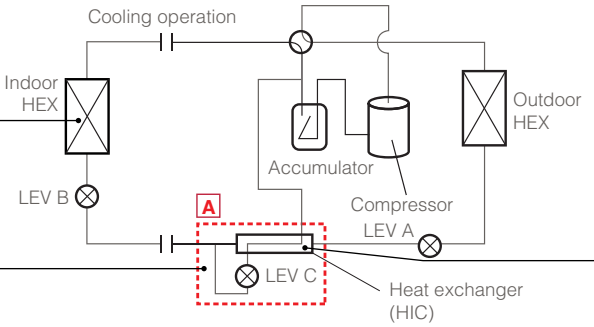
## HIC mechanism

Some of the high-pressure liquid refrigerant has passed through the outdoor unit's heat exchanger flows into the indoor unit directly, and the rest passes through linear expansion valve (LEV) "C" to decrease both the temperature and pressure. The heat is exchanged between the low-temperature, low-pressure liquid refrigerant that has passed through LEV "C" and the moderate-temperature liquid refrigerant from the outdoor unit's heat exchanger. This further lowers the temperature of the liquid refrigerant before it enters LEV "B". This heat exchange system uses a "double-pipe" heat exchanger.

## HIC circuit diagram

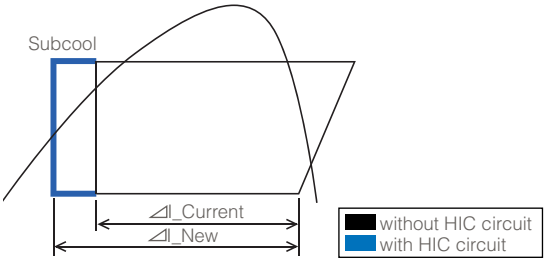
The evaporator absorbs a large amount of heat, increasing the cooling effect.

The refrigerant is separated; some flows into the indoor unit and some passes through LEV "C".

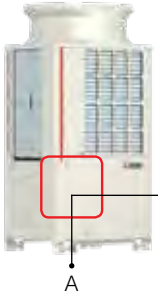



The double-pipe heat exchanger exchanges the heat between the low-temperature, the low-pressure liquid refrigerant that has passed through LEV "C" and the moderate temperature liquid refrigerant from the outdoor heat exchanger. This allows the refrigerant to cool down to a lower temperature and flow through the indoor unit.

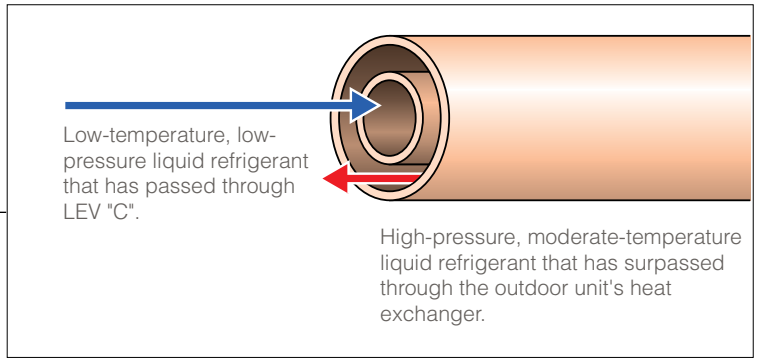
## HIC circuit effect: (image using a Mollier diagram)




## HIC circuit: double-pipe heat exchange cross section (high performance grooved pipe)




Heat Inter-Changer (HIC) Circuit



## IH CRANKCASE HEATER

Y-Series EP | R2-Series EP | WY-Series*1
Y-Series P | R2 Series P | WR2-Series*1

Induction heating (IH) is used to heat the refrigerant. This method differs from the conventional crankcase heater method (in which a belt heater is wrapped around the outside of the compressor) in that heat is not applied from the outside; the refrigerant is heated from the inside, eliminating wasted heat.

*Normally, the compressor is heated while the outdoor unit is stopped to prevent liquid refrigerant from remaining in the compressor and to evaporate the liquid refrigerant in the compressor.

*1 Power supplied to the heater only for 63kW and 69kW (P550 and P600) single modules.

**Crankcase heater power supply method**

Crankcase heater

**IH power supply method (without crankcase heater)**

Heated compressor motor

## METAL PLATE COMPRESSOR ENCLOSURE

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

The compressor is enclosed in metal plates to reduce noise. On some models, sound absorbing materials are applied to the metal plates to further reduce noise.

Compressor is enclosed in metal casing to reduce noise.

# Functions

## COP PRIORITY MODE

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

The operation pattern under low ambient temperature conditions can be selected and the priority mode setting ("Capacity priority mode" and "COP priority mode") can be switched with the dip switches. Each mode is activated when the ambient temperature is below the specified temperature. For factory settings, refer to the Data Book.

## LOW NOISE MODE*

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

This mode reduces noise by limiting the compressor frequency and the number of rotations made by the outdoor fan. The user can select their preferred level on installation via dip switch.

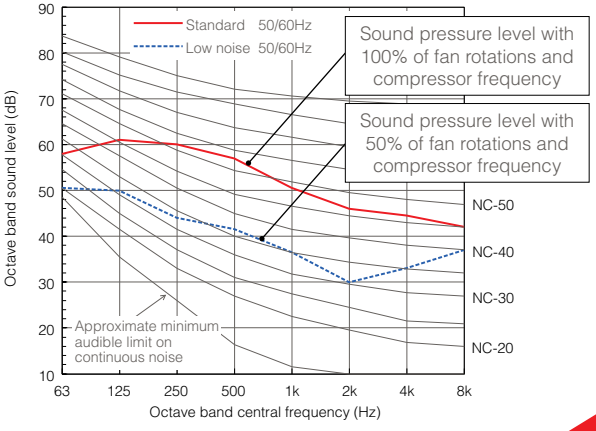
*Cooling/heating capacity drops during low-noise mode operation.

| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | Db(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 58.0 | 61.0 | 60.0 | 57.0 | 50.5 | 46.0 | 44.5 | 42.0 | 58.0 |
| Low Noise Mode | 50/60Hz | 50.5 | 50.0 | 44.0 | 41.5 | 36.5 | 30.0 | 33.0 | 37.0 | 44.0 |

When low noise mode is set, "Performance-priority mode" and "Quiet-priority mode" can be selected. When "Performance-priority mode" is selected, the system may automatically return to normal operation from low noise mode in cases of heavy operating conditions.

**Sound level of PUHY-P200YNW-A(-BS)**

Examples of sound pressure levels in low noise mode (PUHY-P200YNW-A <cooling>)



# SYSTEM CHANGEOVER (FOR HEAT PUMP ONLY)

Y-Series EP | Y-Series P | WY-Series

## Normal switching between cooling and heating

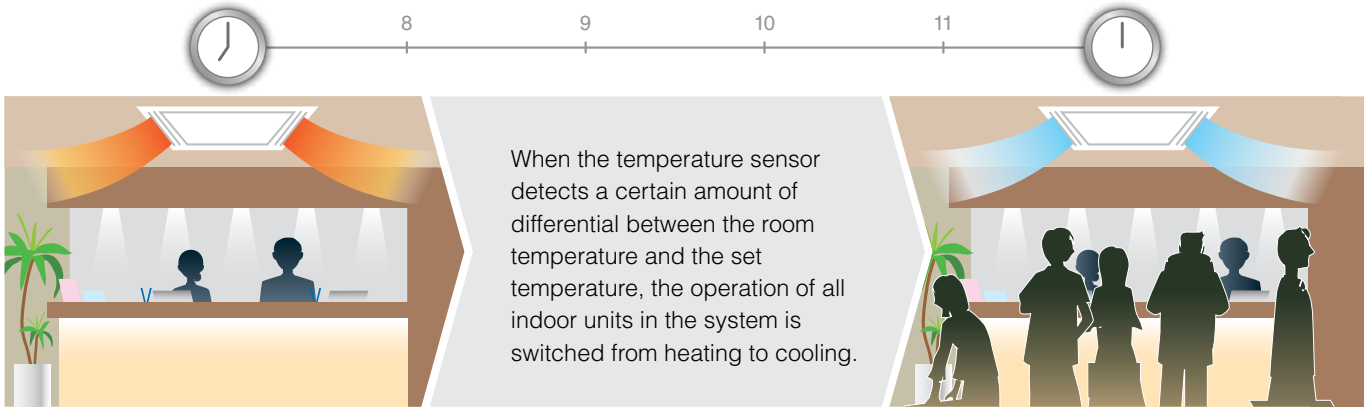
With CITY MULTI's switchable cooling/heating models, in order to switch from cooling to heating, the operation mode of all indoor units performing cooling operation needs to be manually switched.

## Using System changeover to switch between cooling and heating

Depending on the dip switch system settings, all indoor units can automatically switch their operation mode according to the operation mode of a specific indoor unit (the unit with the smallest M-NET address). Operation can be automatically switched between cooling and heating according to the temperature difference between the preset temperature on a specific indoor unit and room temperature.

## Suitable situations

When both cooling and heating operations are required in a single day due to an extreme difference between the hottest and coldest parts of the day.

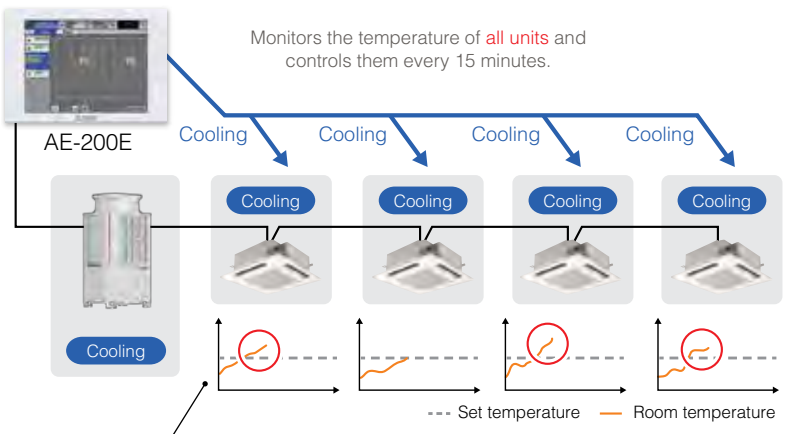



## When using the AE-200E/AE-50E

It is possible to automatically switch between cooling and heating without setting the dip switches on outdoor units. The user can select from the two types of switching patterns shown below.

1. Averaging
   The operation mode (cooling or heating) will be determined and switched every 15 minutes based on the demands of the majority of all groups connected to the outdoor unit, taking into consideration the capacity of each indoor unit and the temperature differences between the set temperatures and room temperatures.
2. Representative Group
   The operation mode (cooling or heating) will be switched based on the temperature difference between the set temperature and the room temperature of the representative group.

Averaging method image




If the room temperature is higher on average than the set temperature, AE-200E changes the system mode to cooling. Cooling mode or heating mode is decided by the average weighted return air temperature, the set temperature and capacity.

Settings for AE-200E

Select from "None", "Averaging", and "Representative Group".

*To activate system changeover, the Web Browser for initial Settings is required.

# DUAL SET POINT

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

Normally, the desired room temperature is set to the same value for cooling and heating. However, the dual set point function makes it possible to set different temperatures for cooling and heating. When operation switches from cooling to heating or vice versa, the preset temperature changes accordingly.

Setting dual set points for the Auto mode on R2 and WR2 helps improve energy efficiency, compared to setting a single 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, the indoor unit automatically operates in either the Cool or Heat mode and keep the room temperature within the preset range. The outdoor unit does not operate in the dead band defined by two temperature points where the thermostat is off. This cuts down on unnecessary operation of the air conditioning system.

*This function is supported only when all the indoor units, remote controllers and system controllers that are connected to a given group feature the function.

## Operation pattern during auto (dual set point) mode

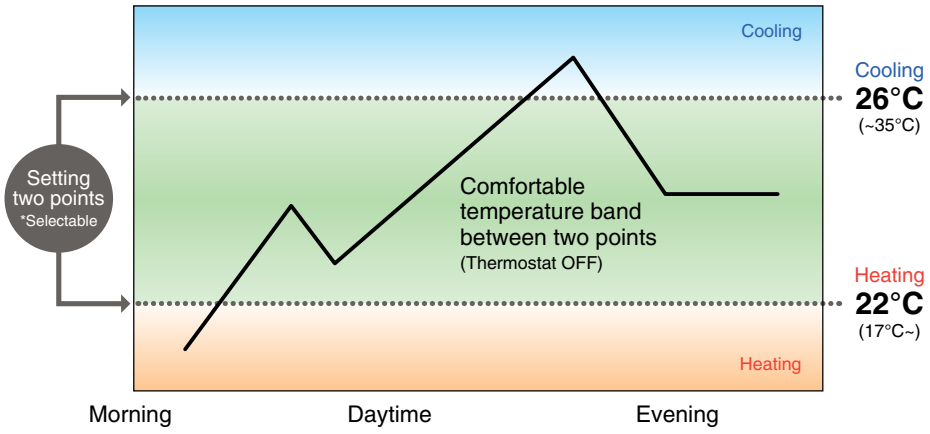



**Image showing operation in Auto (single set point) mode**

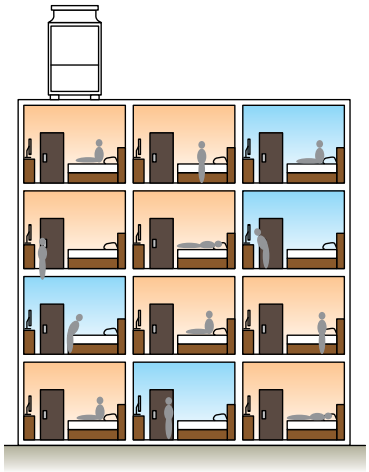
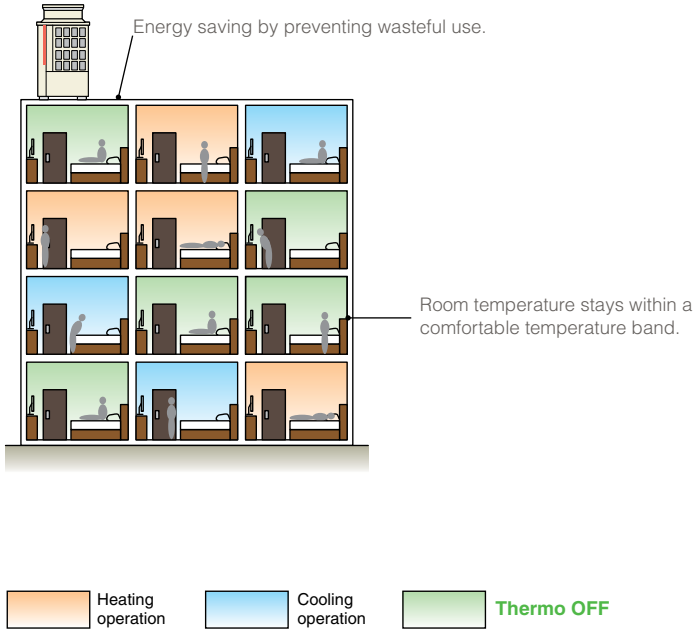


**Image showing operation in Auto (dual set point) mode**

Turning off the thermostat saves energy as the refrigerant stops circulating.



# EVAPORATING TEMPERATURE CONTROL (DURING COOLING)

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

During cooling, the temperature of the refrigerant is controlled according to the air conditioning load.
This helps to ensure energy-efficient operation.

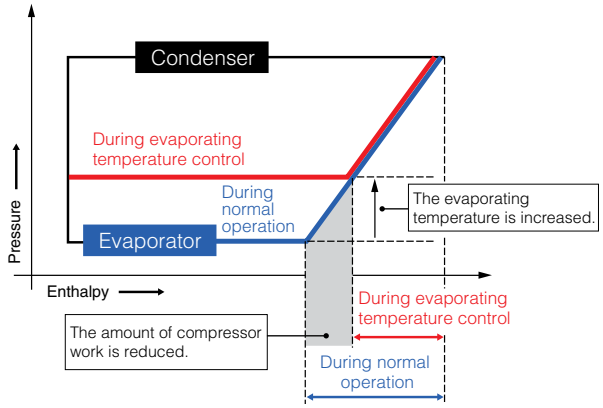
**Normal mode**
Image showing operation in Auto (single set point) mode. The evaporating temperature is kept constant regardless of the load. Even at low loads, the normal evaporating temperature does not change, which leads to energy losses during partial load operation.

**Smart evaporating temperature control mode**
The evaporating temperature is increased and the compressor input is decreased according to the load, resulting in increased operating efficiency.
There are two patterns to control the evaporating temperature as follows.

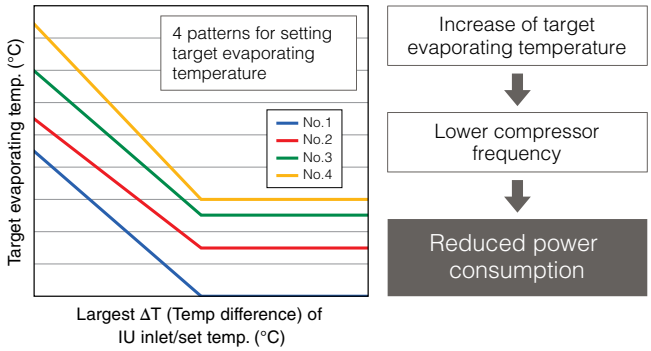
1. The evaporating temperature is set to a value that is higher than the normal evaporating temperature.
2. The evaporating temperature is controlled by shifting it according to the ΔT. The user can select from 4 control patterns.

*The availability of 1 and 2 varies depending on the model. Refer to the function table.
*Changing the evaporating temperature reduces latent heat capacity. Select an appropriate pattern according to the installation conditions.
*The fixed temperature control function and the automatic control shifting function cannot both be used simultaneously.

1 Evaporating temperature control image (Fixed temperature control)




2 Evaporating temperature control image (Automatic control shifting with 4 patterns)

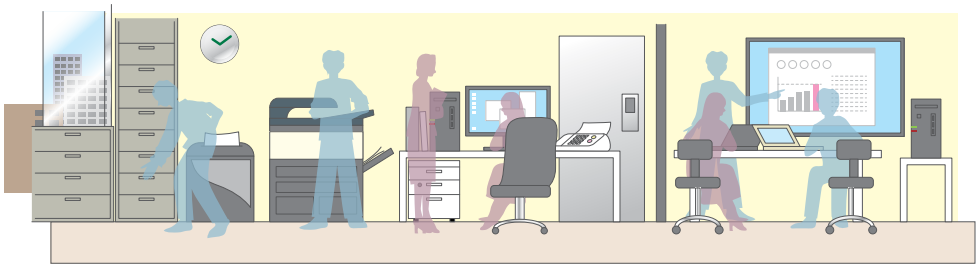



*1 To change the evaporating temperature setting, it is necessary to change the setting of the dip switch on the outdoor unit.

*2 When the difference between the indoor unit air-intake temperature and the actual temperature setting exceeds 1°C, the evaporating temperature based on this difference is constant.

## Suitable situations

» Spaces with constant high temperatures from heat sources such as OA equipment.
» When the load is low during periods when air conditioners are used for cooling (such as during the morning).

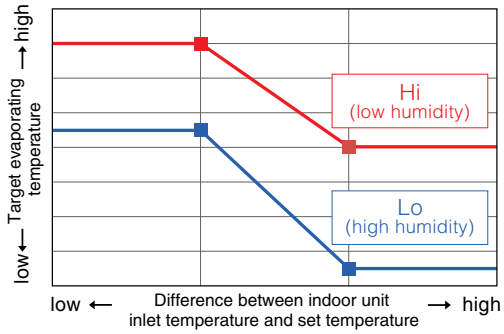


# HIGH SENSIBLE HEAT OPERATION (DURING COOLING)

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

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

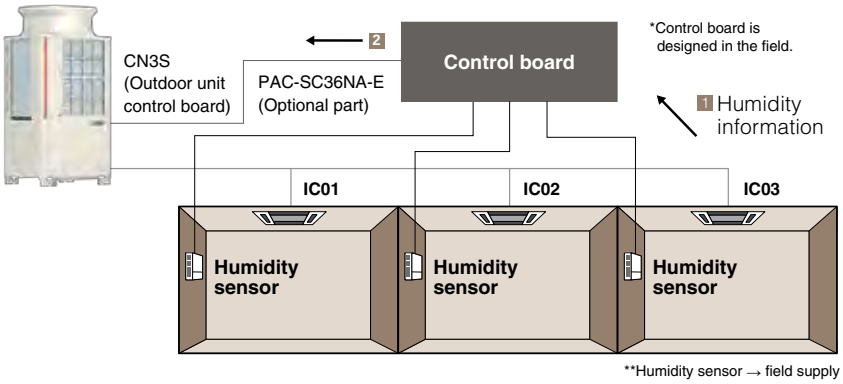



With high sensible heat operation mode activated, air conditioners consume less energy, thereby realising cost savings.

If 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 realise energy savings.

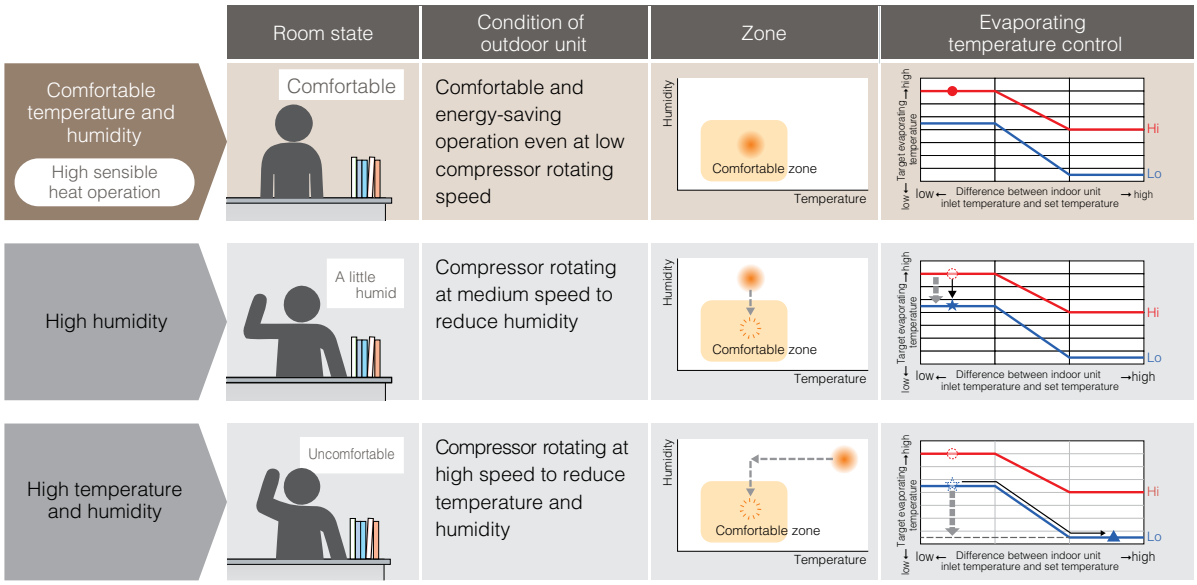
## Locally procured humidity sensor installation image




1 Humidity information is sent to the control board.

2 The control board judges the humidity information and sends a HIGH/LOW signal to the outdoor unit through CN3S. The outdoor unit shifts the evaporating temperature depending on the information from the control board.

## Locally procured humidity sensor installation image



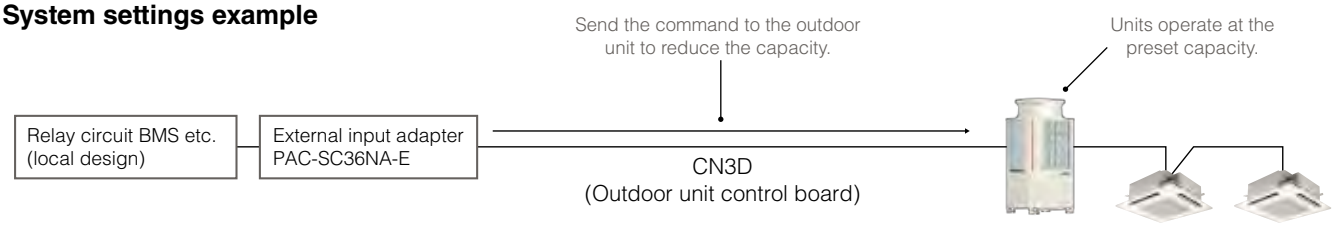
# DEMAND CONTROL

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

This function can reduce the capacity of the outdoor unit used by way of the external input to the outdoor unit. The required capacity of the outdoor unit can be reduced in steps, with patterns ranging from 2 to 12 control steps. The number of steps that can be set and the corresponding capacity are shown below.
» 2 steps (0 - 100%)
» 4 steps (0 - 50 - 75 - 100%)
» 8 steps (0 - 25 - 38 - 50 63 - 75 - 88 - 100%)
» 12 steps (0 - 17 - 25 - 34 - 42 - 50 - 59 - 67 - 75 - 84 - 92 - 100%)

Possible usage: when power consumption is centrally-controlled within a building, the system can be forced to operate in the capacity-save mode by receiving external signals.

### System settings example

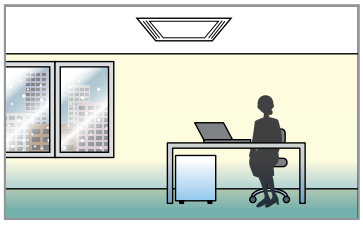



# CONTINUOUS HEATING OPERATION

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

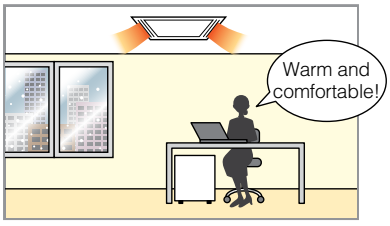
Normally, it is necessary to stop the heating operation during defrosting. However, the continuous heating operation method makes it possible to perform defrosting while the heating operation continues. Reduction in the stoppage time of the heating operation reduces drops in room temperature. Use a dip switch on the outdoor unit to switch between the continuous heating operation method and the conventional defrosting method.

### During normal defrosting operation



Heating is stopped during the defrosting operation, so the room temperature drops.

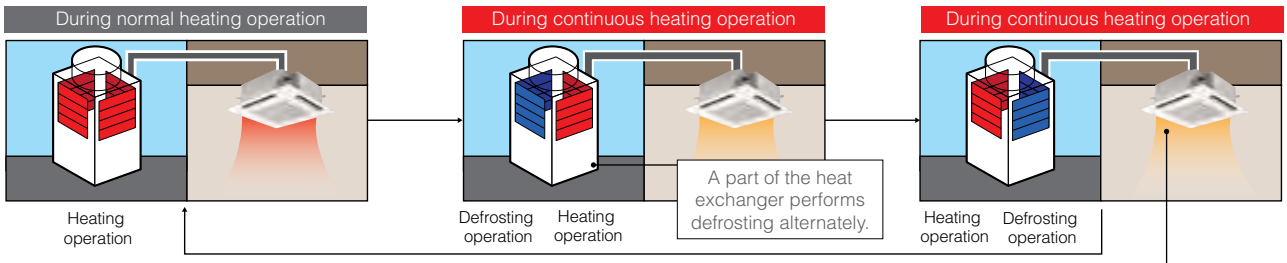
### During continuous heating operation




You can enjoy a comfortable environment where the heating operation doesn't stop.

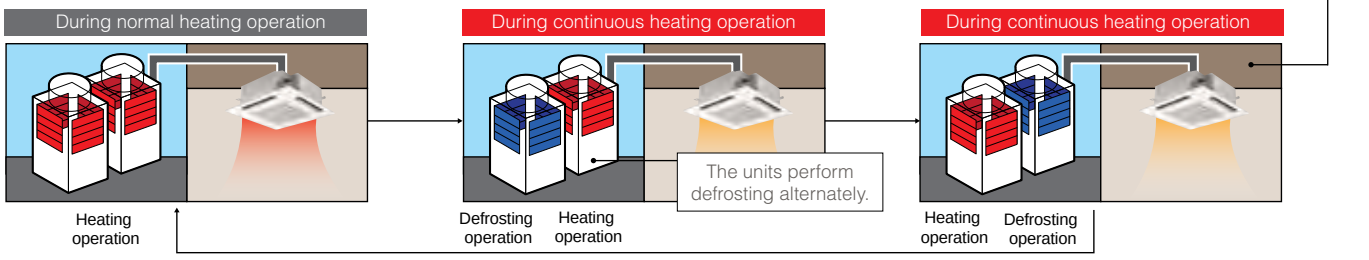
### Continuous heating operation image (single unit)

The heat exchanger of the outdoor unit is split into parts. Even when defrosting is necessary, the heating operation is continued with a part of the heat exchangers.




### Continuous heating operation image (combination)

With the combination model, units perform defrosting alternately. While one unit is performing defrosting, the other continues heating.

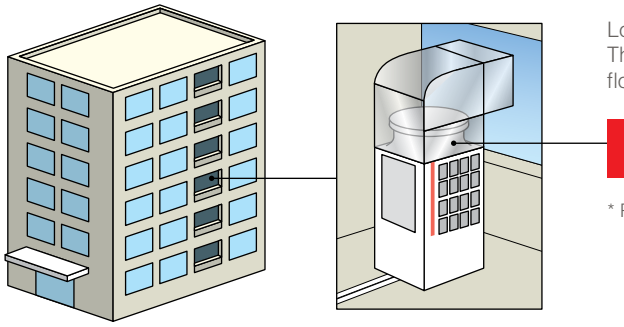


# SELECTABLE EXTERNAL STATIC PRESSURE OF THE OUTDOOR UNIT

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

The static pressure specification of the outdoor unit can be selected (0, 30, 60, or 80 Pa).
This facilitates installation of the unit on each floor of a high-rise building or on balconies.

* The static pressure that can be set varies depending on the model.



Long exhaust hoods can be connected.
This facilitates installation of the unit on each floor of a high-rise building or on balconies.

Maximum external static pressure
80 Pa (local setting)

* PUHY-(E)P-Y(S)NW-A, PURY-(E)P-Y(S)NW-A

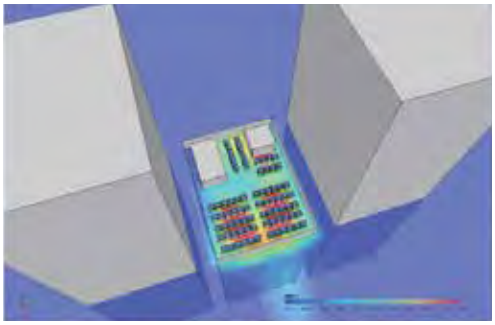
# OPERATION AT HIGH OUTSIDE TEMPERATURES

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

In certain cases, the passage of air is restricted in built-up areas. Discharged warm air that is kept around the outdoor units may cause a temperature increase around the units. The YNW series has an expanded guaranteed operation range of up to 52°C and can be used reliably even if the outdoor air temperature abnormally rises in hot summer daytime.

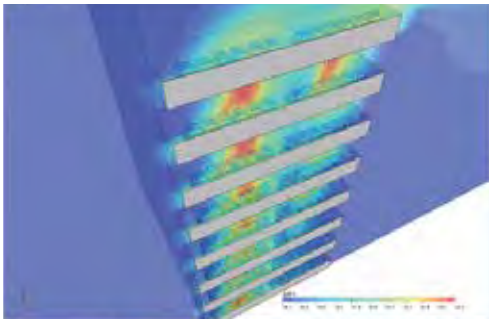
**Example of flow analysis** Conditions: Outdoor air temperature = 35°C (DB), Room temperature = 27°C (DB)

Built-up area with buildings and outdoor units



If the passage of air is restricted in a built-up area, the high-temperature air discharged from the outdoor units may be kept around the units.

Installation on each floor a high-rise building



When the outdoor units are installed on balconies, the high-temperature air discharged from the units may be kept in by upper balconies.

## Models for use in outside temperature of up to 52°C

PUHY-(E)P-Y(S)NW-A
PURY-(E)P-Y(S)NW-A

* These images show the R2 High Efficiency type.

# ROTATIONAL CONTROL

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series


With the combination model, the outdoor units operate alternately. This reduces the operating load and helps create a longer service life.

# EMERGENCY OPERATION MODE

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

Emergency operation is possible with indoor unit's remote control. With the combination model, if one outdoor unit is malfunctioning, the other outdoor unit can be set to perform an emergency operation.


Emergency operation in case of unit failure


An emergency operation can be performed easily with a local remote controller.

# PUMP DOWN FUNCTION

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

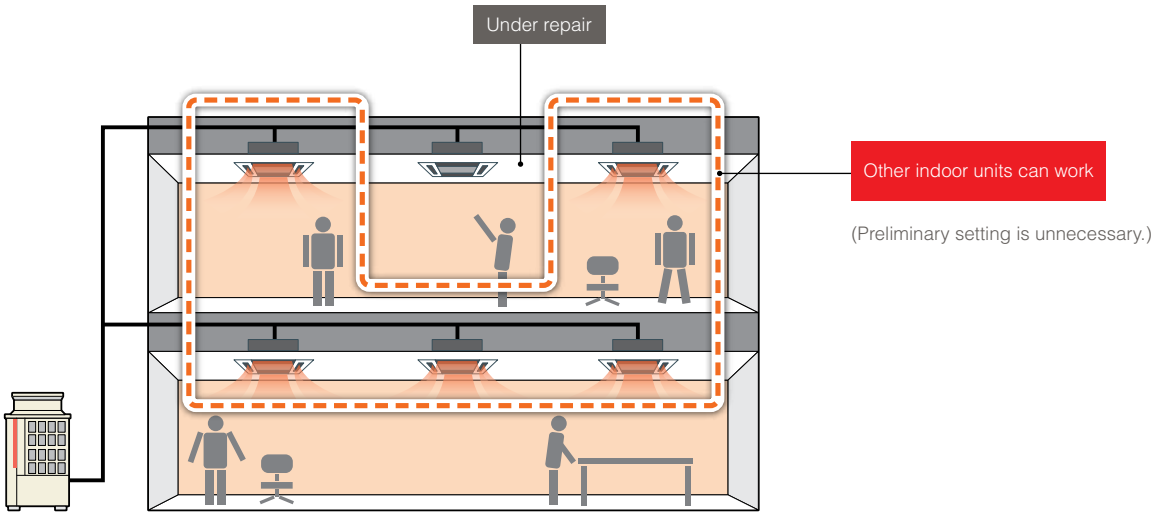
This function collects the refrigerant that remains in the indoor unit and in the field piping, allowing the system to be worked on, such as when the air conditioner is relocated.
This function can also be used to stop the operation of the indoor unit and return the refrigerant to the outdoor unit in the event that a refrigerant leak is detected.*

* To detect a refrigerant leak, a circuit that includes a refrigerant leak detection sensor must be installed and calibrated.

# INDIVIDUAL LEV CONTROL

Y-Series EP | R2-Series EP | WY-Series
Y-Series P | R2 Series P | WR2-Series

Even if one of the indoor units is powered down for repair, the LEV of the indoor unit closes, and the other indoor units remain functional. (Preliminary setting is unnecessary.)



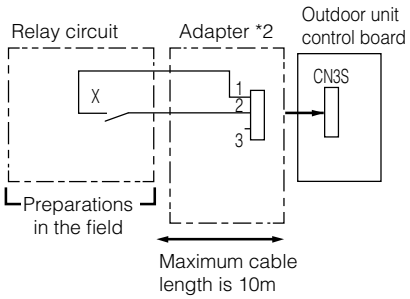

# SNOW SENSOR SETTING

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

When a snow buildup signal is received from the snow sensor (procured locally) or when the ambient temperature drops below 5°C (detected with TH7), the outdoor unit is forcibly switched to ventilation operation. This activates the outdoor unit's fan to prevent snow from building up on the unit.

### Snow sensor setting example

Snow sensor (CN3S)




X : Relay  Contact rating voltage >= 15VDC
Contact rating current >= 0.1A
Minimum applicable load =< 1mA at DC

*2. Optional part : PAC-SC36NA-E or field supply.
Snow sensor : The outdoor fan runs when X is closed in stop mode or thermostat mode.

# Function Table

Mitsubishi Electric's outdoor units and heat source units utilise the latest technology and offer a wide variety of functions. See the preceding pages for details of each technology and function.

| System | Air Cooled | | | | Water Cooled | |
|---|---|---|---|---|---|---|
| Type | Heat Pump | | Heat Recovery | | Heat Pump | Heat Recovery |
| Series | Y-Series | | R2-Series | | WY-Series | WR2-Series |
| | Standard | High Efficiency | Standard | High Efficiency | | |
| Model | PUHY-P Y(S)NW-A | PUHY-EP Y(S)NW-A | PURY-P Y(S)NW-A | PURY-EP Y(S)NSW-A | PQHY-P Y(S)LM-A1 | PQRY-P Y(S)LM-A1 |
| |  |  |  |  |  |  |

## Operation mode

| | | | | | | |
|---|---|---|---|---|---|---|
| COP Priority Mode | ✓ | ✓ | ✓ | ✓ | | |
| Low Noise Mode | 50, 60, 70, 85, 100% | 50, 60, 70, 85, 100% | 50, 60, 70, 85, 100% | 50, 60, 70, 85, 100% | 50, 100% | 50, 100% |
| System Changeover (for heat pump) | ✓ | ✓ | | | ✓ | |
| Auto Mode | | | ✓ | ✓ | | ✓ |
| Dual Set Point | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |

## Energy efficiency control

| | | | | | | |
|---|---|---|---|---|---|---|
| Evaporating Temperature Control (fixed temperature control) | +6°C, +9°C, +14°C | +6°C, +9°C, +14°C | +6°C, +9°C, +14°C | +6°C, +9°C, +14°C | +6°C, +9°C, +14°C | +6°C, +9°C, +14°C |
| Evaporating Temperature Control (automatic control shifting) | 4 Patterns | 4 Patterns | 4 Patterns | 4 Patterns | 4 Patterns | 4 Patterns |
| High Sensible Heat Operation (during cooling) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Demand Control | 12 Steps | 12 Steps | 8 Steps | 8 Steps | 8 Steps | 8 Steps |
| Continuous Heating Operation During Defrost | ✓ | ✓ | ✓ | ✓ | | |
| Selectable External Static Pressure of Outdoor Unit | 0, 30, 60, 80, Pa | 0, 30, 60, 80, Pa | 0, 30, 60, 80, Pa | 0, 30, 60, 80, Pa | | |
| Operation at High Outside Temperatures | 52°C | 52°C | 52°C | 52°C | | |

## Maintenance functions

| | | | | | | |
|---|---|---|---|---|---|---|
| Rotation Control | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Emergency Operation mode | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pump Down Function | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Individual LEV Control | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Snow Sensor Setting | ✓ | ✓ | ✓ | ✓ | | |

*Must be supported by indoor unit and remote controller.

# Y-Series

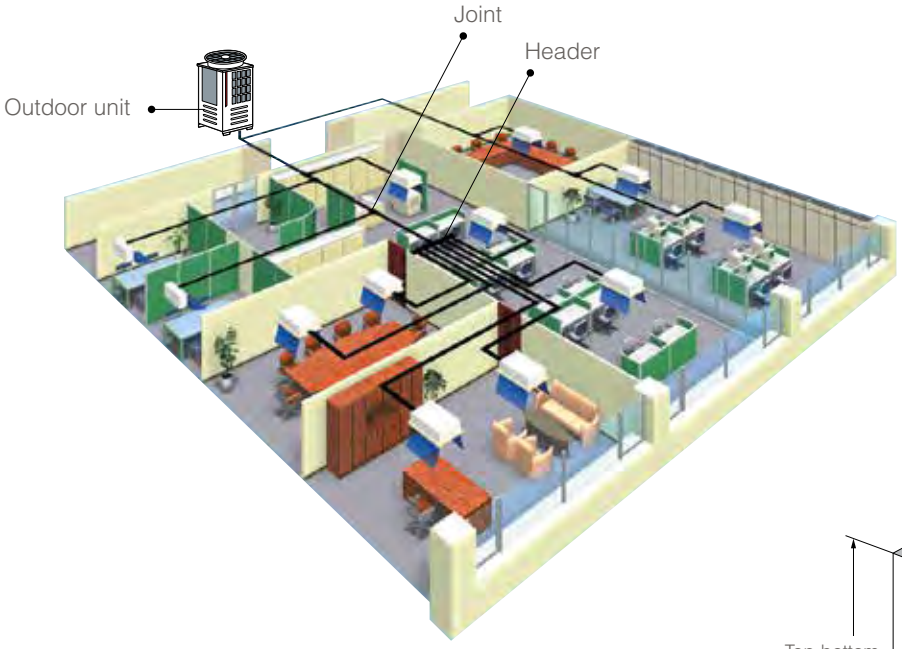
**Cooling or Heating** HEAT PUMP

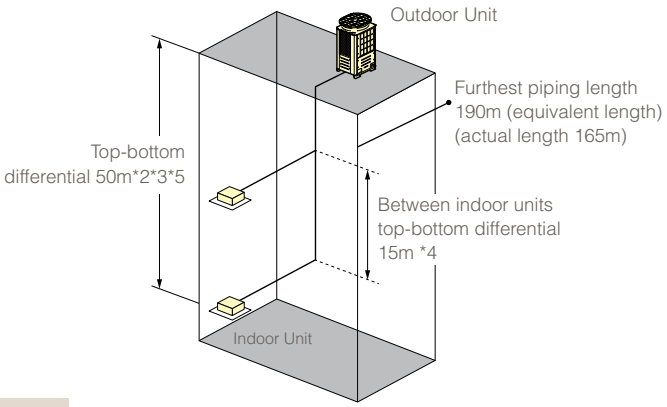
*This image shows the High Efficiency type.

## THE TWO-PIPE ZONED SYSTEM DESIGNED FOR HEAT PUMP OPERATION

The CITY MULTI Y-Series (for large applications) makes use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, helping the indoor climate to be maintained in all zones. The compact outdoor unit utilises R410A refrigerant and an INVERTER-driven compressor to use energy effectively.

With a wide lineup 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 engineering design options. This feature allows easy air conditioning in each area with convenient individual controllers.




## SYSTEM PIPE LENGTHS

(E)P200-(E)P1350

| Refrigerant Piping Lengths | Maximum Units |
|---|---|
| Total Length | 1000 |
| Maximum Allowable Length | 165 (190 equivalent) |
| Farthest Indoor from First Branch | 40*1 |
| **Vertical Variations Between Units** | **Maximum Units** |
| Indoor/Outdoor (Outdoor Higher) | 50*2 |
| Indoor/Outdoor (Outdoor Lower) | 40*3 |
| Indoor/Indoor | 15*4 |

All values in metres

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

# R2-Series

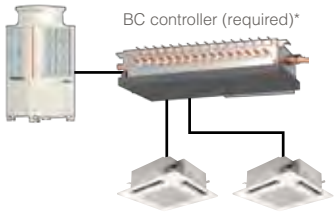
**Simultaneous heating and cooling** HEAT RECOVERY

*This image shows the High Efficiency type.

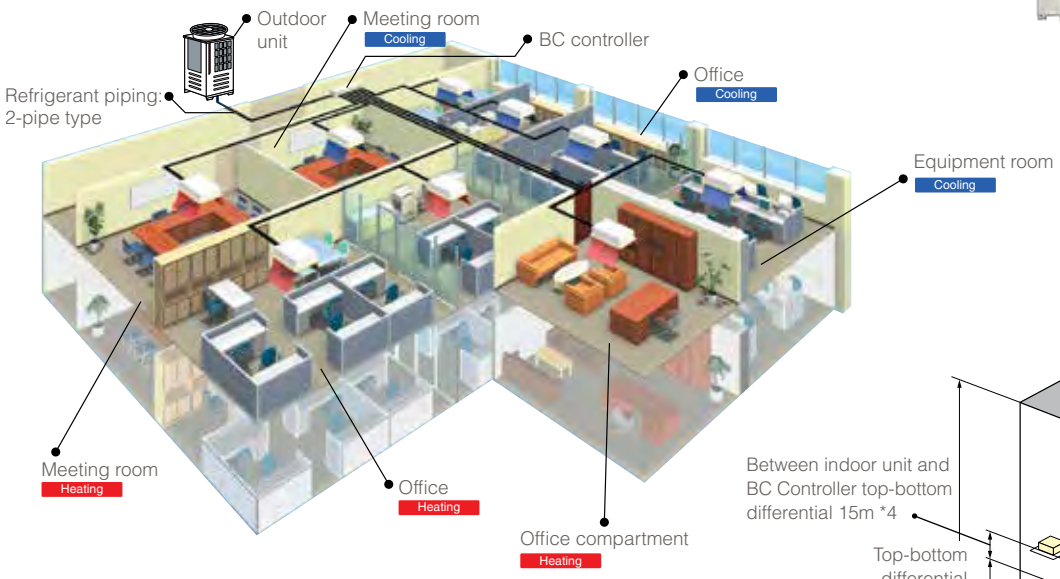
## THE WORLD'S FIRST* TWO-PIPE SYSTEM THAT SIMULTANEOUSLY COOLS AND HEATS

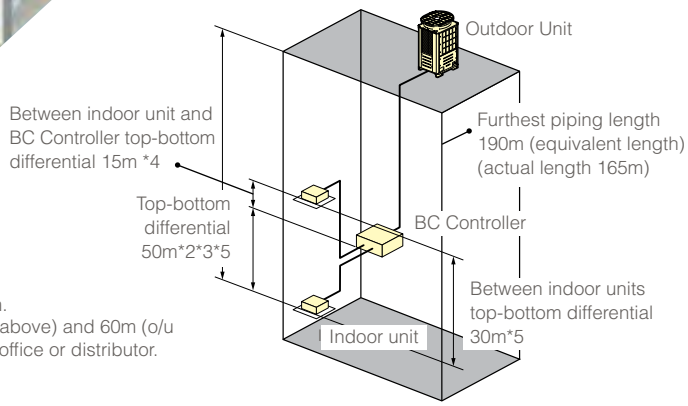
*As of 1992 (according to our own survey).

The CITY MULTI R2-Series offers the ultimate in freedom and flexibility. Cool one zone while heating 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 reduced energy wasted. Depending on capacity, up to 50 indoor units can be connected with up to 150% connected capacity.




*R2-Series systems require the use of BC controllers.




*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.
*3 Depending on the model and installation conditions, top-bottom differential 90m (o/u above) and 60m (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.
*5 Distance of Indoor sized P200, P250 from BC must be less than 20m.

## SYSTEM PIPE LENGTHS

(E)P200-(E)P1350

| Refrigerant Piping Lengths | Maximum Units | Vertical Variations Between Units | Maximum Units |
|---|---|---|---|
| Total Length | | Indoor/Outdoor (Outdoor Higher) | 50*3 |
| (E)P200 - (E)P300 | 550 | Indoor/Outdoor (Outdoow Lower) | 40*3 |
| (E)P350 - (E)P550 (single module) | 600 | Indoor/BC Controller (Single/Main) | 15*4 |
| (E)P400 - (E)P600 | 750 | *Maximum lenth between single/main BC Controller and indoor is dependent upon the vertical differential between the single/main BC controller and the indoor unit. | |
| (E)P650 | 800 | Indoor/Indoor | 30*5 |
| (E)P700 - (E)P1100 | 1000 | Main BC Controller/Sub-Controller | 15 |
| Maximum Allowable Length | 165 (190 equivalent) | | |
| Maximum length between outdoor and single/main BC controller | | | 110 |
| *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 |

All values in metres

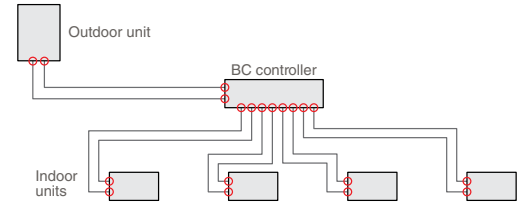
# Benefits of the R2 System

Mitsubishi Electric's world's first 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.

## MITSUBISHI ELECTRIC 2-PIPE R2 SYSTEM: LESS PIPING/CONNECTIONS COMPARED WITH 3-PIPE

### Comparison example of piping connections

**2 pipes** **CITY MULTI R2**

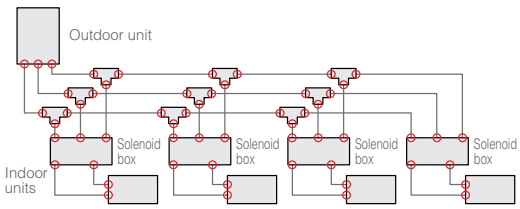



Total Connections **20**

Drastically reduced the amount of piping

= Piping connections

**3 pipes**




Total Connections **58**

= Piping connections

## MAIN MODE OF COOLING/HEATING CAN BE SWITCHED OVER WITHOUT STOPPING OPERATION

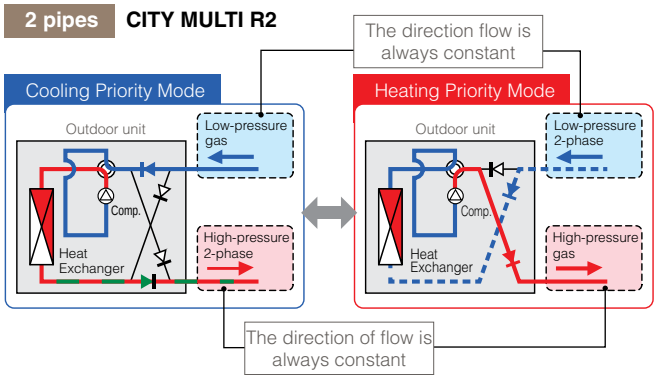
### When cooling/heating mode switches

» There is no need to stop the compressor.
» Refrigerant noise generated when the refrigerant flow is switched can be lowered.

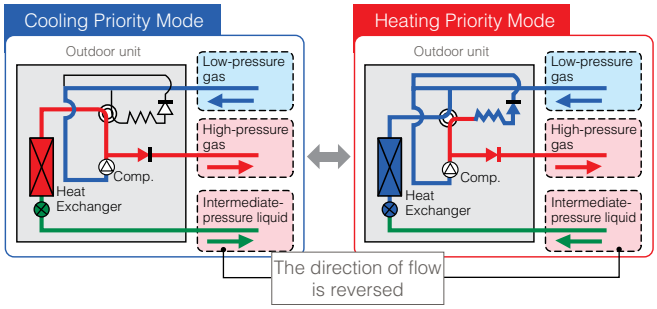
### When cooling/heating mode switches

» Compressor shuts down.
» All indoor units stop for a few minutes.

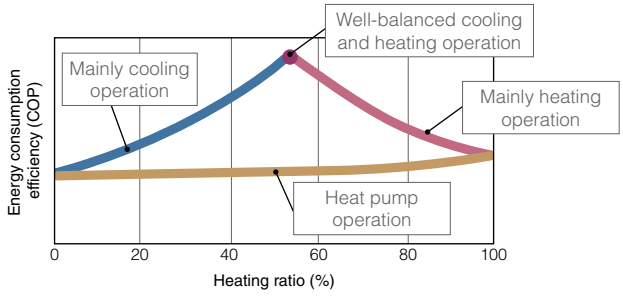
**2 pipes** **CITY MULTI R2**




**3 pipes**




## HEAT RECOVERY OPERATION FOR GREATER ENERGY SAVING




COP UP

### COP in the heat recovery system

The more frequently cooling and heating are performed simultaneously, the greater the energy saving effect.

# The Next Stage of Air Conditioning

YNW SERIES

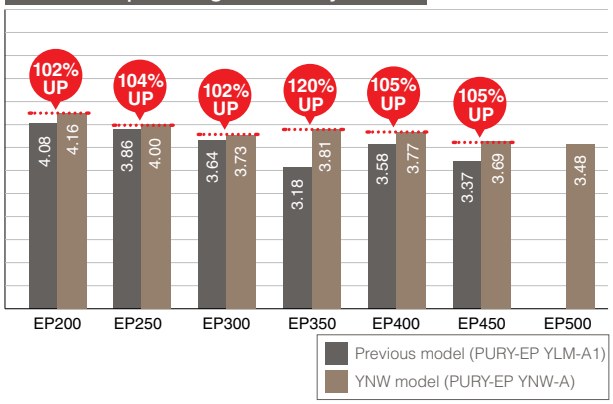
Introducing a new series of air conditioners with improved essential functions, advanced compressor and a streamline fan that meets energy-saving requirements. Mitsubishi Electric continues to improve air conditioning quality and provide its customers with next-stage solutions.

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

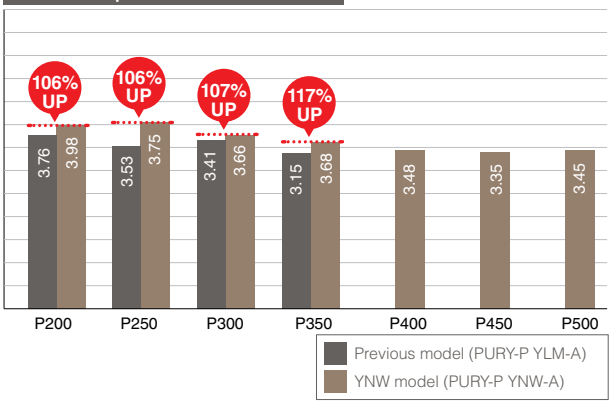
# ENERGY SAVING

Compared to the existing models, the all single modules (Y-Series) in YNW Series have improved EER and COP. EER of the 40kW model (PUHY-EP350YNW-A) is higher by approximately 12%. All these models ensure improved energy saving.

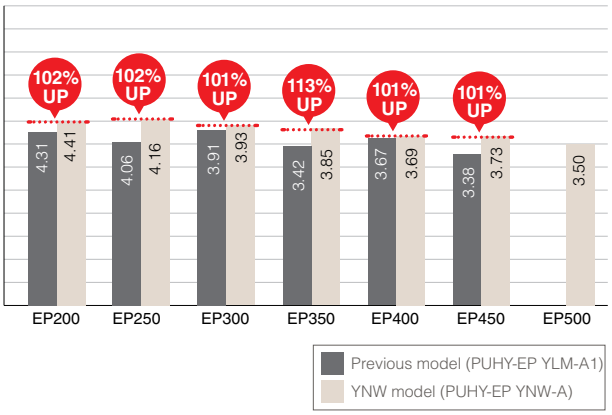
**R2 Series | EER High Efficiency Model**



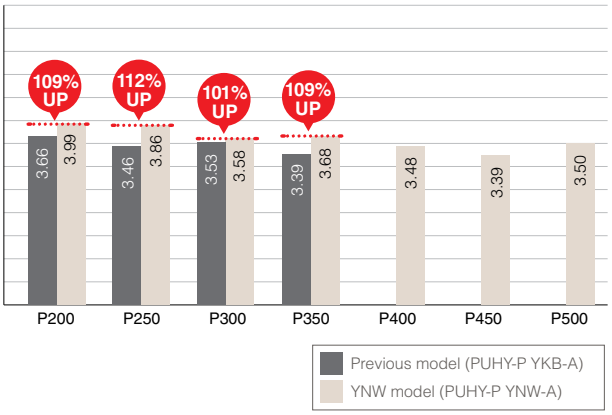

**R2 Series | EER Standerd Model**




**Y Series | EER High Efficiency Model**




**Y Series | EER Standard Model**




*Comparison under the nominal condition.

# FLEXIBLE NOISE SETTING

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% for 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 a low-noise operation is required.

*In the low noise mode, the capacity will be reduced.

Previous model (YLM) (YNW)

# NEW DESIGN

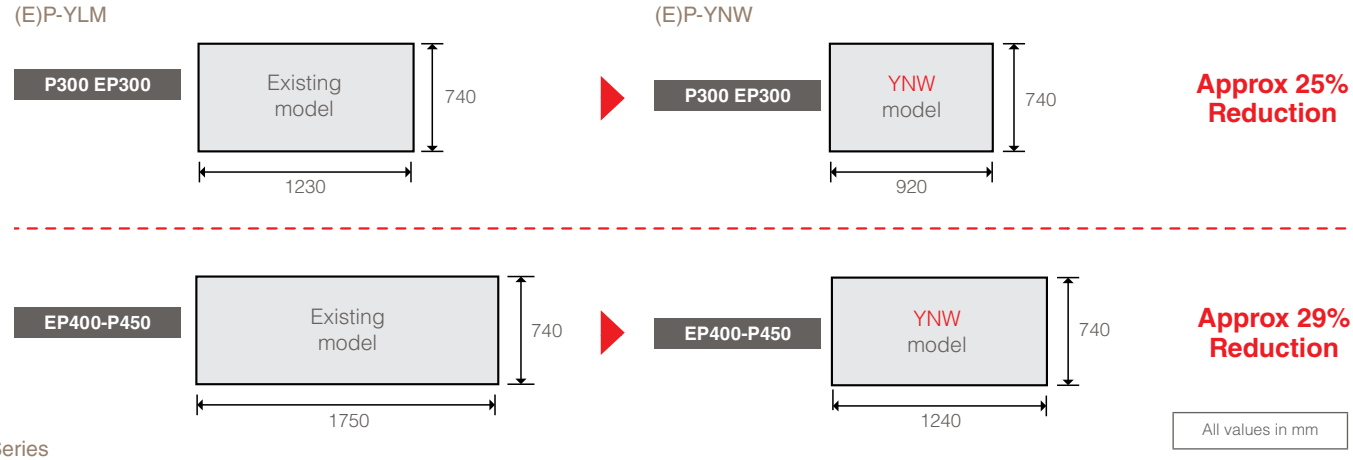
For improved high efficiency, the structure was changed by using a four-sided heat exchanger. The appearance is more sophisticated and can enhance the design of a building.

*All YNW product images are High Efficiency type.

**Comparison of modules (EP)**

## Capacity Increased up to 124kW
## New 45~56kW single module available

Single modules of up to 56kW have been added to the R2-Series.
Single modules are smaller, with L modules replacing the EP400 and P450 modules, reducing installation space by approximately 29%.




R2 Series

**Single (P)**

| | 22.4kW | 28kW | 33.5kW | 40kW | 45kW | 50kW | 56kW |
|---|---|---|---|---|---|---|---|
| | P200 | P250 | P300 | P350 | P400 | P450 | P500 |
| YLM-A | S | S | L | L | - | - | - |
| YNW | S | S | S | L | L | L | XL |

**Single (EP)**

| | 22.4kW | 28kW | 33.5kW | 40kW | 45kW | 50kW | 56kW |
|---|---|---|---|---|---|---|---|
| | P200 | P250 | P300 | P350 | P400 | P450 | P500 |
| YLM-A1 | S | S | L | L | XL | XL | - |
| YNW | S | S | S | L | L | L | XL |

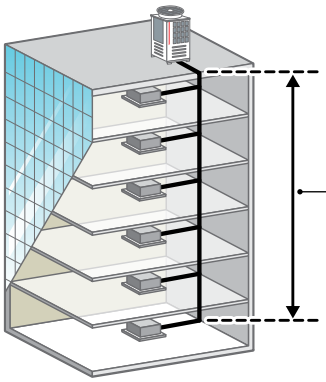
**Combination (P)**

| | 22.4kW | 28kW | 33.5kW | 40kW | 45kW | 50kW | 56kW | 63kW | 69kW | 73kW | 80kW | 85kW | 90kW | 96kW | 101kW | 108kW | 113kW | 118kW | 124kW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | - | - | - | - |
| 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 |

Newly available single module
Increase capacities up to 124kW
Use of module one size smaller than existing unit

# USABLE IN AN APPLICATION WITH A LARGE VERTICAL SEPARATION OF UP TO 90 METERS

A height difference of up to 90 m from the outdoor unit to the indoor unit can be supported with no additional parts. This increases design flexibility and facilitates installation of these units even in high-rise buildings.



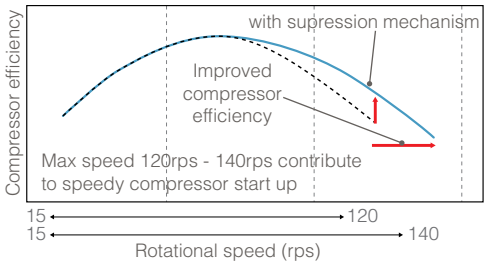
Height difference from outdoor unit to indoor unit:
The system can be configured with a height difference of up to **90m with no additional parts.**

*Whether the system can be configured with such a height difference varies depending on the model.
*The maximum height difference is 60 m when the outdoor unit is located lower than the indoor unit.

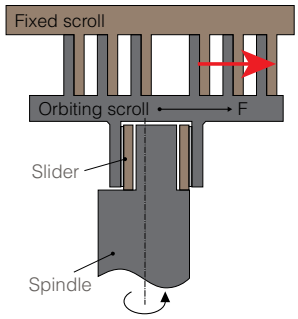
# KEY COMPONENTS

## 1. Compressor with centrifugal force suppression mechanism

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



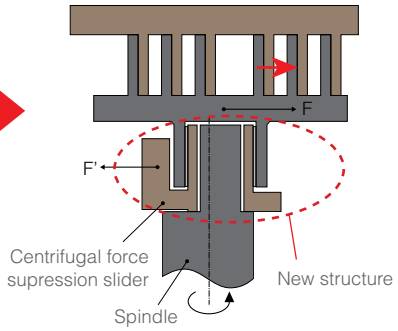

**Existing mechanism**
Small loss | Vortex pressing speed low




Centrifugal force applied on scroll section: Large

Refrigerants leakage loss: large
Max. speed 120rps

**Centrifugal force supression**
Large loss | Vortex pressing speed high




Centrifugal force applied on scroll section: Large

Refrigerants leakage loss: large
Max. speed 140rps

### Centrifugal force supression mechanism (22.4kw to 40kw)

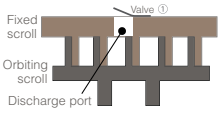
The structure of the scroll compressor causes a centrifugal force during operation. Conventionally, that centrifugal force is applied onto the scroll section. This causes the refrigerant to leak and restricts the increase in rotational speed to a maximum of 120rps. With the new compressor, a new structure (centrifugal force supression 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.

### Multi-port mechanism

With the scroll compressor, the distance of the compression process in the scroll is usually fixed, so over-compression occurs during the low loads and low rotation. The new compressor is equipped with to 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 by that successfully avoiding additional compression and contributing to the efficient partial load operation.

**Existing structure**

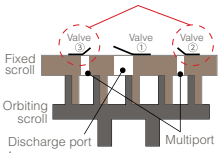
| | | Operation pattern | |
|---|---|---|---|
| | | Partial load | Rating, high pressure difference |
| Main port | Valve① | Open | Open |




**Structure with multi-port design**

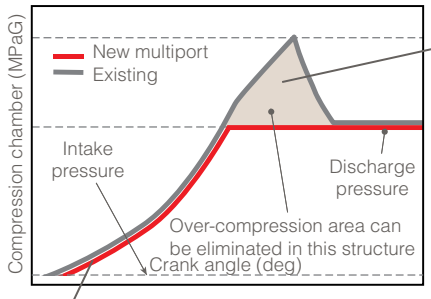
| | | Operation pattern | |
|---|---|---|---|
| | | Partial load | Rating, high pressure difference |
| Main port | Valve① | Open | Open |
| Sub-port | Valve② | Open | Closed |
| | Valve③ | Open | Closed |

**Structure**




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

### Reduced over-compression loss (multi-port)



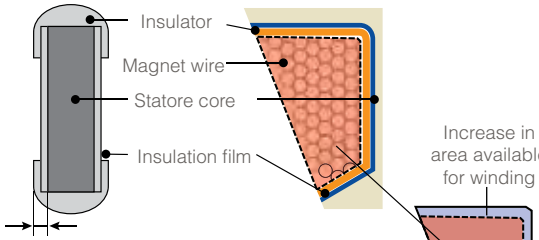

**Existing model**
Conventionally, gas refrigerant is compressed to a set pressure, and then lowered to the target discharge pressure at which it is discharged. This causes drive losses from over-compression.

**Multi-port**
When the target discharge pressure is reached, the multi-port opens, and the gas refrigerant is discharged. This reduces drive losses caused by over-compression.

### Improved high-efficiency motor

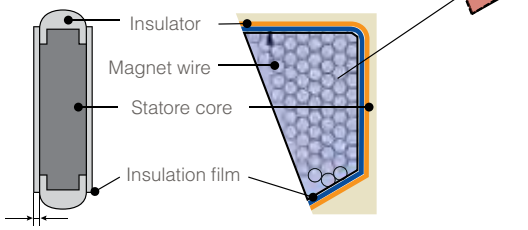
The insulator section that traditionally created a dead space is reduced by insulating the motor's stator film. Since winding can be set in that section, the winding area can be increased by approximately 9%. The wire diameter has also been increased by two ranks, so the resistance between terminals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

**Existing model (YLM)**




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

**Model (YNW)**

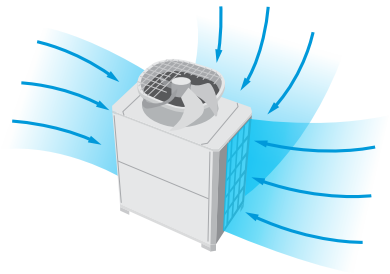



The motor can be wound in the section where the insulator was, and a larger wire diameter can be used.

## 2. Four-way suction and new fan

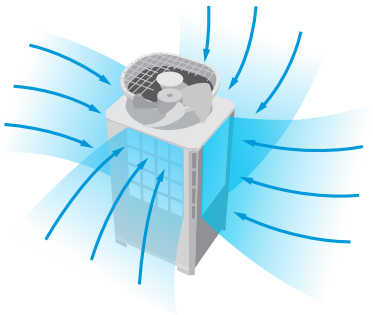
On the conventional models, a U-shaped heat exchanger was installed over the rear and side surfaces. In the YNW model, the four-sided heat exchanger is mounted on the top section of the module near the fan. This allows air to be taken in effectively increasing the heat exchanger's efficiency.

Existing model



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

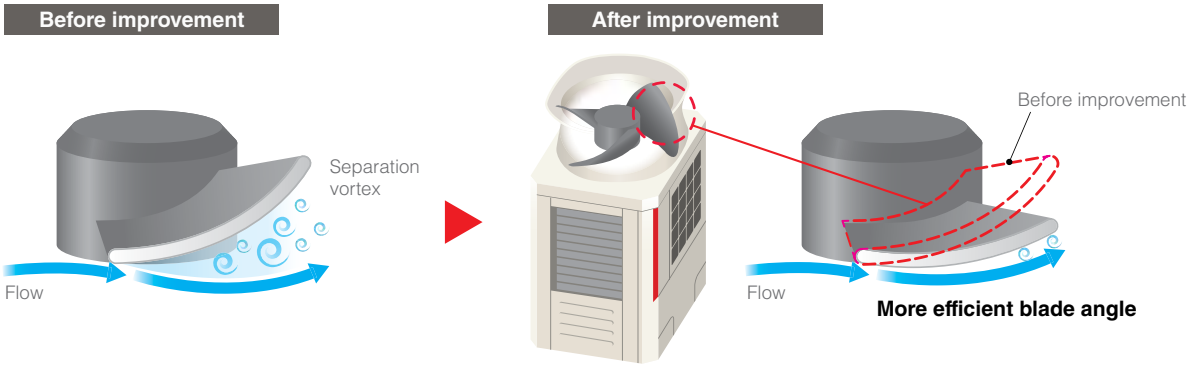
YNW model



Efficient air circulation 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 improves the operation efficiency.

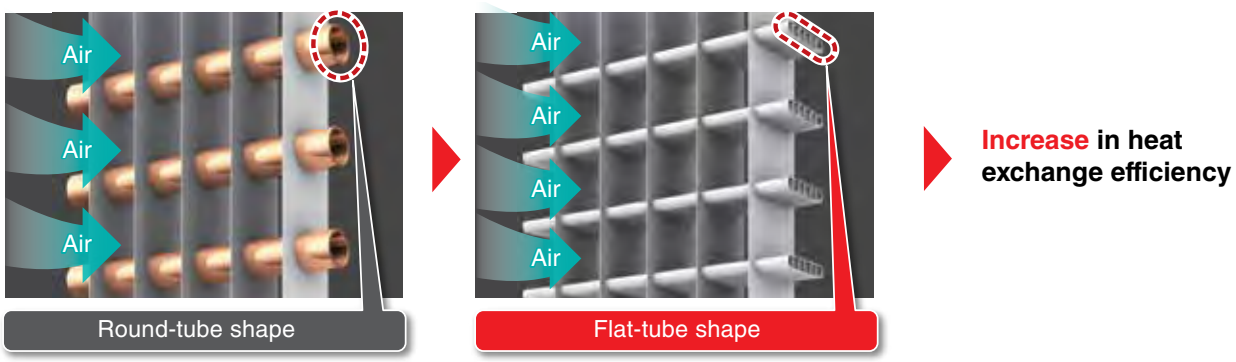
## 3. Streamlined fan

A new fan which is suitable for a 4-face suction, with a newly designed winglet provided on the periphery of each blade to operate efficiently. Additionally, the blade angle is adequately determined according to the flows on the inner and outer peripheries of the blade to optimise the blowing efficiency.



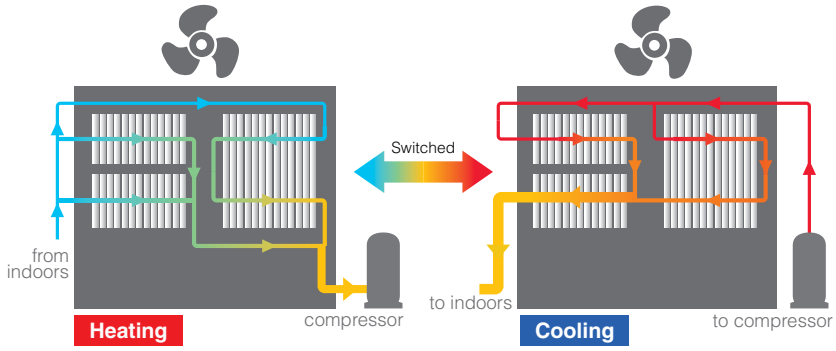

## 4. Flat-tube heat exchanger (EP Models)

In addition to the round-tube heat exchanger models, the flat-tube heat exchanger models are available. The use of flat tubes increases the number of piping stages while maintaining the same size for the 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.

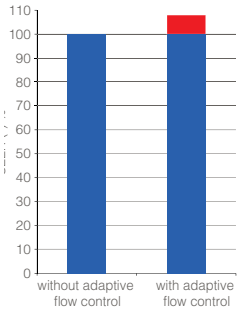


## 5. Adaptive flow control

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




**Comparision of EP300 (Y Series) SEER (cooling) with and without variable path**




*Not applicable to all models

» 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. The drop in heat exchanger capacity per path prevents the refrigerant stagnation and improves the condensing performance of the heat exchanger during cooling.

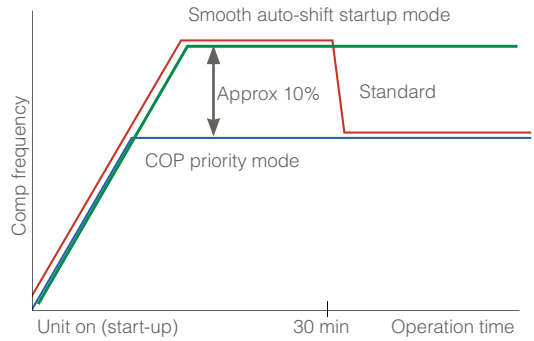
» During heating, a parallel flow path (flow refrigerant simultaneously through all heat exchangers split into three) is used. By flowing the refrigerant to all paths at the heat exchanger inlets (by increasing the number of paths compared to cooling), the pressure loss in the heat exchanger is reduced, and the evaporator performance is improved.

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

# KEY FUNCTIONS

## 1. Smooth auto-shift startup mode

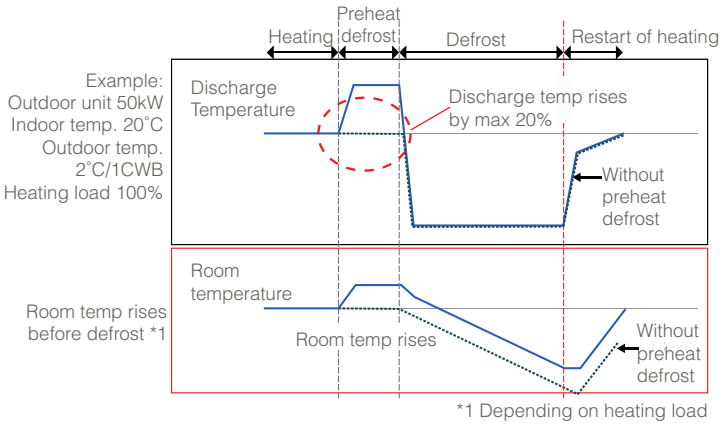
Smooth auto-shift startup mode, a new operation mode on the outdoor unit can now be selected in addition to the conventional COP Priority and Capacity Priority modes. To heat the room faster, Capacity Priority mode runs for 30 minutes when the heating operation starts. The unit then switches to COP Priority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




*Time for preparation for heating is required

## 2. Preheat defrost operation

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 the defrost operation and prevents room occupants experiencing a chilling sensation.




*1 Depending on heating load

## 3. Energy-efficient evaporation control

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 realise 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.

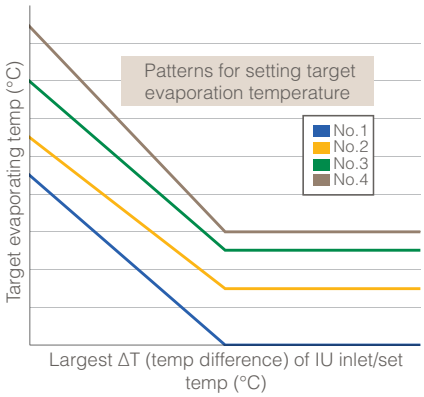
**Increase of target Evaporation temperature**

▼

**Lower compressor frequency**

▼

**Reduced power consumption**



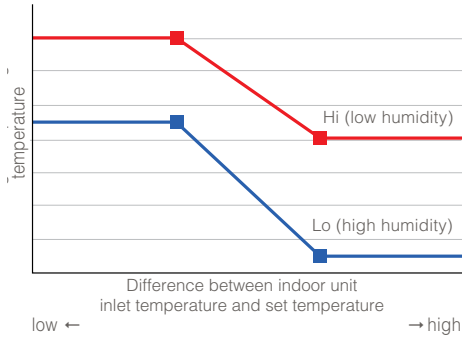
## 4. High sensible heat operation

The evaporating temperature is controlled according to a room's temperature and humidity and refrigerant pressure.

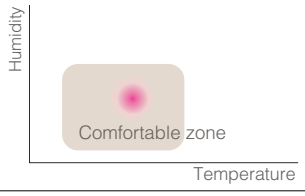
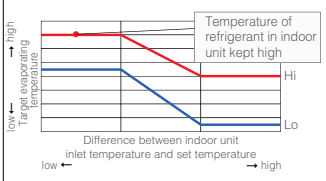
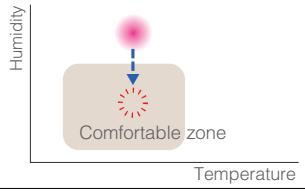
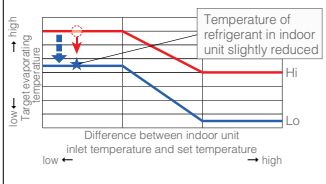
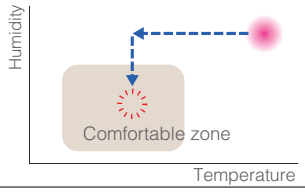
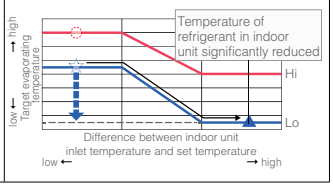
With high sensible heat operation mode activated, air conditioners consume less energy,*1 thereby realising cost savings.
If a locally procured humidity sensor is installed, the evaporating temperature of the outdoor unit can be controlled optimally as shown below according to the difference between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

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




### Temperature and humidity conditions

| | Room State | Condition of Outdoor Unit | Zone | Evaporating Temperature Control |
|---|---|---|---|---|
| Comfortable temperature and humidity<br><br>High sensible heat operation | Comfortable | Comfortable and energy-saving operation even at low compressor rotating speed |  |  |
| High humidity | Slightly humid | Compressor rotating at medium speed to reduce humidity |  |  |
| High temperature and humidity | Uncomfortable | Compressor rotating at high speed to reduce temperature and humidity |  |  |





## 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. For convenience, it is unnecessary to carry a PC that the maintenance tool application is installed on. The software can be written via USB, while data for can be stored in the USB memory device*2 up to 4 days and the 5 minutes after an error has occurred.

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

# OUTDOOR UNITS

## For Y SERIES

| Description | Model | Remarks |
|---|---|---|
| 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

| Description | | Model | Remarks |
|---|---|---|---|
| Twinning Kit | | CMY-R100VBK4 | For PURY-(E)P400 ~ (E)P650YSNW-A |
| | | CMY-R200VBK4 | For PURY-(E)P700 ~ (E)P1100YSNW-A |
| | | CMY-Y102SS-G2 | 200 or below (total capacity of indoor unit) |
| For BC Controller | 2-Branch Joint Pipe | CMY-Y102LS-G2 | 201-400 (total capacity of indoor unit) |
| | | CMY-R201S-G | 350 or below (total capacity of indoor unit) |
| | Joint and Reducer | 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 |

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YNW-A(-BS)

| 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 | | | |
| 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 |
| | Current Input | A | 9.4-8.9-8.6 | 12.2-11.6-11.2 | 12.9-12.2-11.8 | 18.3-17.4-16.7 |
| | EER | kW/kW | 3.99 | 3.86 | 3.58 | 3.68 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | | |
| | Outdoor | D.B. | -5.0~52.0°C | | | |
| 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 |
| | Current Input | A | 9.4-8.9-8.6 | 12.4-11.7-11.3 | 15.3-14.1-14.0 | 19.0-18.1-17.4 |
| | COP | kW/kW | 4.47 | 4.28 | 4.2 | 3.98 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | | |
| | Outdoor | W.B. | -20.0~15.5°C | | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 58.0 / 59.0 | 60.0 / 61.0 | 61.0 / 64.5 | 62.0 / 64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 >= 90m) | 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 | | | 28.58 (1-1/8) Brazed |
| FAN *4 | Type x Quantity | | 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 | | | |
| | Motor Output | kW | 0.92 x 1 | | | 0.46 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 5.6 | 7.0 | 7.9 | 9.8 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | 1,858 (1,798 without legs) x 1,240 x 740 |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | | | R10A x 9.8kg |
| Net Weight | | kg | 225 | | 228 | 278 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2<br>Header: CMY-Y104/108/1012, 1010-G | | | Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2<br>Header: CMY-Y104/108/1012, 1010-G |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YNW-A(-BS)

| 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 | | |
| 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 |
| | Current Input | A | 21.8-20.7-19.9 | 24.8-23.6-22.7 | 27.0-25.1-24.7 |
| | EER | kW/kW | 3.48 | 3.39 | 3.50 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 23.1-21.9-21.1 | 27.5-26.1-25.2 | 27.1-25.8-24.9 |
| | COP | kW/kW | 3.65 | 3.43 | 3.91 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 65.0 / 67.0 | 65.5 / 69.5 | 63.5 / 66.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 82.5 / 86.0 | 83.5 / 88.5 | 82.0 / 85.5 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 12.7 (1/2) Brazed | 15.88 (5/8) Brazed | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | |
| FAN *4 | Type x Quantity | | 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 | | |
| | Motor Output | kW | 0.46 x 2 | | 0.92 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 10.9 | 12.4 | 13.3 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | 1,858 (1,798 without legs) x 1,750 x 740 |
| 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 | | |
| Refrigerant | Type x Original Charge | | R410A x 9.8kg | R410A x 10.8kg | |
| Net Weight | | kg | 278 | 294 | 337 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2<br>Header: CMY-Y104/108/1010-G | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| 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 | | |
| Cooling Capacity (Nominal)*1 | | kW | 45.0 | 50.0 | 56.0 |
| | | BTU/h | 153,500 | 170,600 | 191,100 |
| | Power Input | kW | 11.63 | 13.15 | 14.97 |
| | Current Input | A | 19.6-18.6-17.9 | 22.1-21.6-20.3 | 25.2-24.0-23.1 |
| | EER | kW/kW | 3.87 | 3.80 | 3.74 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 19.4-18.5-17.8 | 22.1-21.0-20.3 | 25.6-24.3-23.4 |
| | COP | kW/kW | 4.33 | 4.23 | 4.15 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 61.0 / 62.0 | 62.0 / 63.0 | 63.0 / 64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 78.0 / 81.0 | 80.0 / 82.0 | 81.0 / 83.0 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 12.7 (1/2) Brazed | 15.88 (5/8) Brazed | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | |
| | Air Flow Rate | $m^3$/min | 170 | | | 185 | | |
| | | L/s | 2,833 | | | 3,083 | | |
| | | cfm | 6,003 | | | 6,532 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 5.6 | | | 7.0 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.5kg | | | | | |
| Net Weight | | kg | 225 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) Brazed | | | | | |
| | Gas Pipe | mm (in.) | 22.2 (7/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y100VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YNW-A(-BS)

| 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 | | |
| 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 |
| | Current Input | A | 29.6-28.1-27.1 | 27.4-26.0-25.1 | 35.0-33.3 |
| | EER | kW/kW | 3.59 | 3.47 | 3.51 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| Heating Capacity (Max)*2 | | kW | 69.0 | 76.5 | 81.5 |
| | | BTU/h | 235,400 | 261,00 | 278,100 |
| | Power Input | kW | 16.99 | 19.17 | 21.61 |
| | Current Input | A | 28.6-27.2-26.2 | 32.3-30.7-29.6 | 36.4-34.6-33.4 |
| | COP | kW/kW | 4.06 | 3.99 | 3.77 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~47 | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 63.5 / 66.0 | 64.0 / 67.5 | 66.5 / 68.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 82.0 / 85.0 | 83.0 / 86.5 | 84.0 / 87.0 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 15.88 (5/8) Brazed | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | Propeller Fan x 2 |
| | Air Flow Rate | $m^3$/min | 185 | 240 | | | 185 | 300 |
| | | L/s | 3,083 | 4,000 | | | 3,083 | 5,000 |
| | | cfm | 6,532 | 8,474 | | | 6,532 | 10,593 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | | | | | 0.46 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 7.9 | | | 7.0 | 10.9 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | | | 1,858 (1,798 without legs) x 1,240 x 740 |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.5kg | | | | | R410A x 9.8 |
| Net Weight | | kg | 225 | 228 | | | 225 | 278 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) 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 | | | | | 28.58 (1-1/8) Brazed |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y100VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| 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 | | |
| 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 |
| | Current Input | A | 37.9-36.0-34.7 | 41.4-39.3-37.9 | 44.5-42.3-40.7 |
| | EER | kW/kW | 5.56 | 3.46 | 3.41 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 38.4-36.5-35.2 | 43.5-41.3-39.8 | 47.5-42.3-43.4 |
| | COP | kW/kW | 3.86 | 3.68 | 3.56 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 65.5 / 67.0 | 67.0 / 68.5 | 67.5 / 71.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 83.5 / 86.0 | 84.5 / 88.0 | 85.5 / 89.5 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 19.05 (3/4) Brazed | | |
| | Low Pressure | mm (in.) | 34.93 (1-3/8) Brazed | | |

| Set Model | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | | PUHY-P350YNW-A (-BS) | PUHY-P350YNW-A (-BS) | PUHY-P350YNW-A (-BS) | PUHY-P4000YNW-A (-BS) | PUHY-P350YNW-A (-BS) | PUHY-P450YNW-A (-BS) |
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | m³/min | 270 | | | 300 | 270 | 305 |
| | | L/s | 4,500 | | | 5,000 | 4,500 | 5,083 |
| | | cfm | 9,534 | | | 10,593 | 9,534 | 10,770 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 9.8 | | | 10.9 | 9.8 | 12.4 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 9.8kg | | | | | R410A x 10.8kg |
| Net Weight | | kg | 278 | | | | | 294 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| 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 | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y200VBK2<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| Model | | | PUHY-P850YSNW-A (-BS) | PURY-P900YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 48.8-46.3-44.6 | 51.9-49.3-47.5 |
| | EER | kW/kW | 3.32 | 3.28 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | |
| | Outdoor | D.B. | -5.0~52.0 °C | |
| Heating Capacity (Max)*2 | | kW | 108.0 | 113.0 |
| | | BTU/h | 368,500 | 385,600 |
| | Power Input | kW | 31.57 | 34.03 |
| | Current Input | A | 53.2-50.6-48.8 | 57.4-54.5-52.6 |
| | COP | kW/kW | 3.42 | 3.32 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | |
| | Outdoor | W.B. | -20.0~15.5 °C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 68.5 / 71.5 | 68.5 / 72.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 86.0 / 90.5 | 86.5 / 91.5 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 19.05 (3/4) Brazed | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | |
| | Air Flow Rate | $m^3$/min | 300 | 305 | | |
| | | L/s | 5,000 | 5,083 | | |
| | | cfm | 10,593 | 10,770 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | |
| | Motor Output | kW | 0.46 x 2 | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 10.9 | 12.4 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R410A x 9.8kg | R410A x 10.8kg | | |
| Net Weight | | kg | 278 | 294 | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y200VBK2<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
*Due to continuing improvement, above specification may be subject to change without notice.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| Model | | | PUHY-P950YSNW-A (-BS) | PUHY-P1000YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 50.4-47.9-46.2 | 54.0-51.3-49.4 |
| | EER | kW/kW | 3.61 | 3.53 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | |
| | Outdoor | D.B. | -5.0~52.0 °C | |
| Heating Capacity (Max)*2 | | kW | 119.5 | 127.0 |
| | | BTU/h | 407,700 | 433,300 |
| | Power Input | kW | 30.40 | 33.42 |
| | Current Input | A | 51.3-48.7-46.9 | 56.4-53.5-51.6 |
| | COP | kW/kW | 3.95 | 3.80 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | |
| | Outdoor | W.B. | -20.0~15.5 °C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 66.0 / 68.0 | 68.0 / 69.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 84.5 / 87.0 | 85.5 / 88.5 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 19.05 (3/4) Brazed | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | Propeller Fan x 2 | | Propeller Fan x 1 | Propeller Fan x 2 | |
| | Air Flow Rate | $m^3$/min | 185 | 270 | | 185 | 270 | 300 |
| | | L/s | 3,083 | 4,500 | | 3,083 | 4,500 | 5,000 |
| | | cfm | 6,532 | 9,534 | | 6.532 | 9,534 | 10,593 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | 0.46 x 2 | | 0.92 x 1 | 0.46 x 2 | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 9.8 | | 7.0 | 9.8 | 10.9 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions 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 920 x 740 | 1,858 (1,798 without legs) x 1,240 x 740 | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.5kg | R410A x 9.8kg | | R410A x 6.5kg | R410A x 9.8kg | |
| Net Weight | | kg | 225 | 278 | | 225 | 278 | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) 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 | | 22.2 (7/8) Brazed | 28.58 (1-1/8) Brazed | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| Model | | | PUHY-P1050YSNW-A(-BS) | PUHY-P1100YSNW-A (-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 57.5-54.6-52.7 | 59.9-56.9-54.9 |
| | EER | kW/kW | 3.46 | 3.49 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | |
| | Outdoor | D.B. | -5.0~52.0 °C | |
| Heating Capacity (Max)*2 | | kW | 132.0 | 140.0 |
| | | BTU/h | 450,400 | 177,700 |
| | Power Input | kW | 35.86 | 37.43 |
| | Current Input | A | 60.5-57.5-55.4 | 63.1-60.0-57.8 |
| | COP | kW/kW | 3.58 | 3.74 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | |
| | Outdoor | W.B. | -20.0~15.5 °C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/3~50 | P15~P250/3~50 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 68.5 / 70.5 | 68.5 / 70.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 86.0 / 89.5 | 86.0 / 88.0 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 19.05 (3/4) Brazed | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | Propeller Fan x 2 | | | | |
| | Air Flow Rate | $m^3$/min | 185 | 300 | | 270 | | 300 |
| | | L/s | 3,083 | 5,000 | | 4,500 | | 5,000 |
| | | cfm | 6,532 | 10,593 | | 9,534 | | 10,593 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | 0.46 x 2 | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 10.9 | | 9.8 | | 10.9 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | 1,858 (1,798 without legs) x 1,240 x 740 | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.5kg | R410A x 9.8kg | | | | |
| Net Weight | | kg | 225 | 278 | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) Brazed | 15.88 (5/8) 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 | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| Model | | | PUHY-P1150YSNW-A (-BS) | PUHY-P1200YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 | 37.90 | 40.35 |
| | Current Input | A | 63.9-60.7-58.5 | 68.1-64.7-62.3 |
| | EER | kW/kW | 3.43 | 3.37 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | |
| | Outdoor | D.B. | -5.0~52.0 °C | |
| Heating Capacity (Max)*2 | | kW | 145.0 | 150.0 |
| | | BTU/h | 494,700 | 511,800 |
| | Power Input | kW | 39.94 | 42.37 |
| | Current Input | A | 67.4-64.0-61.7 | 71.5-67.9-65.4 |
| | COP | kW/kW | 3.78 | 136.0 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | |
| | Outdoor | W.B. | -20.0~15.5 °C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/3~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 69.0 / 71.0 | 70.0 / 72.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 86.5 / 90.0 | 87.5 / 91.0 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 19.05 (3/4) Brazed | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | m³/min | 270 | 300 | | | | |
| | | L/s | 4,500 | 5,000 | | | | |
| | | cfm | 9,534 | 10,593 | | | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 mm$H_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 9.8 | 10.9 | | | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 9.8kg | | | | | |
| Net Weight | | kg | 278 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 12.7 (1/2) Brazed | 15.88 (5/8) Brazed | | | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1mm$H_2O$, 6.1mm$H_2O$, 8.2mm$H_2O$).
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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| Model | | | PUHY-P1250YSNW-A (-BS) | PUHY-P1300YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 70.7-67.2-64.7 | 74.4-70.7-68.1 |
| | EER | kW/kW | 3.34 | 3.31 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | |
| | Outdoor | D.B. | -5.0~52.0 °C | |
| Heating Capacity (Max)*2 | | kW | 165.5 | 163.0 |
| | | BTU/h | 534,000 | 556,200 |
| | Power Input | kW | 45.23 | 48.08 |
| | Current Input | A | 76.3-72.5-69.9 | 81.1-77.1-74.3 |
| | COP | kW/kW | 3.46 | 3.39 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | |
| | Outdoor | W.B. | -20.0~15.5 °C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/3~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 70.0 / 73.0 | 70.0 / 73.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 87.5 / 92.0 | 88.0 / 92.5 |
| 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-P400YNW-A (-BS) | PUHY-P400YNW-A (-BS) | PUHY-P450YNW-A (-BS) | PUHY-P400YNW-A (-BS) | PUHY-P450YNW-A (-BS) | PUHY-P450YNW-A (-BS) |
|---|---|---|---|---|---|---|---|---|
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 300 | | 305 | 300 | 305 | |
| | | L/s | 5,000 | | 5,083 | 5,000 | 5,083 | |
| | | cfm | 10,593 | | 10,770 | 10,593 | 10,770 | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 10.9 | | 12.4 | 10.9 | 12.4 | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 9.8kg | | R410A x 10.8kg | R410A x 9.8kg | R410A x 10.8kg | |
| Net Weight | | kg | 278 | | 294 | 278 | 294 | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | | | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-P YSNW-A(-BS)

| 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 |
| | Current Input | A | 77.1-73.3-70.6 |
| | EER | kW/kW | 3.28 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C |
| | Outdoor | D.B. | -5.0~52.0 °C |
| Heating Capacity (Max)*2 | | kW | 168.0 |
| | | BTU/h | 573,200 |
| | Power Input | kW | 50.60 |
| | Current Input | A | 85.4-81.1-78.2 |
| | COP | kW/kW | 4.05 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C |
| | Outdoor | W.B. | -20.0~15.5 °C |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity |
| | Model/Quantity | | P15~P250/3~50 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 70.5 / 74.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 *4 | Type x Quantity | | Propeller Fan x 2 |
| | Air Flow Rate | $m^3$/min | 305 |
| | | L/s | 5,083 |
| | | cfm | 10,770 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor |
| | Motor Output | kW | 0.46 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter Scroll Hermetic Compressor |
| | Starting Method | | Inverter |
| | Motor Output | kW | 12.4 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 |
| 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 |
| Refrigerant | Type x Original Charge | | R410A x 10.8kg |
| Net Weight | | kg | 294 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 15.88 (5/8) Brazed |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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.
*Subject to JRA9002-1991 standard.

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| 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 |
| | Current Input | A | 8.5-8.1-7.8 | 11.3-10.7-10.4 | 14.3-13.6-13.1 |
| | EER | kW/kW | 4.41 | 4.16 | 3.93 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Outdoor | D.B. | -5.0~52.0°C | | |
| 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 |
| | Current Input | A | 9.0-8.5-7.8 | 11.8-11.2-10.8 | 14.8-14.0-13.5 |
| | COP | kW/kW | 5.35 | 4.49 | 4.27 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Outdoor | W.B. | -20.0~15.5°C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 58.0 / 59.0 | 60.0 / 61.0 | 61.0 / 64.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 >=90m) | 9.52 (3/8) Brazed (12.7 (1/2) Brazed, Farthest Length >=40m) |
| | Gas Pipe | mm (in.) | 22.2 (7/8) Brazed | | 28.58 (1-1/8) Brazed |
| FAN*4 | Type x Quantity | | 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 | | |
| | Motor Output | kW | 0.92 x 1 | | |
| | External Static Pressure | | 0 Pa (0 mmH2O) | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 5.6 | 7.0 | 7.9 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | |
| 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 | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | | |
| Net Weight | | kg | 231 | 231 | 235 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2<br>Header: CMY-Y104/108/1010-G | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1mm$H_2O$, 6.1mm$H_2O$, 8.2mm$H_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YNW-A(-BS) / HIGH EFFICIENCY

| 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 | | | |
| 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 |
| | Current Input | A | 17.5-16.6-16.0 | 20.5-19.5-18.8 | 22.6-21.4-20.7 | 27.0-25.6-24.7 |
| | EER | kW/kW | 3.85 | 3.69 | 3.73 | 3.5 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | | |
| | Outdoor | D.B. | -5.0~52.0°C | | | |
| 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 | 15.0 |
| | Current Input | A | 19.3-18.3-17.7 | 22.0-20.9-20.1 | 25.3-24.0-23.2 | 25.3-24.0-23.1 |
| | COP | kW/kW | 3.32 | 3.83 | 3.73 | 4.20 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | | |
| | Outdoor | W.B. | -20.0~15.5°C | | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 62.0 / 63.5 | 65.0 / 65.5 | 65.5 / 69.5 | 63.5 / 66.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | 15.88 (5/8) Brazed | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | |
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | | |
| | Air Flow Rate | m³/min | 270 | | 305 | 365 |
| | | L/s | 4,500 | | 5,083 | 6,083 |
| | | cfm | 9,534 | | 10,770 | 12,888 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | |
| | Motor Output | kW | 0.46 x 2 | | | 0.92 x 2 |
| | External Static Pressure | | 0 Pa (0 mm$H_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 9.8 | 10.9 | 12.4 | 13.3 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | 1,858 (1,798 without legs) x 1,750 x 740 |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 9.8kg | R10A x 10.8kg | | |
| Net Weight | | kg | 285 | 305 | | 342 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2<br>Header: CMY-Y104/108/1010-G | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1mm$H_2O$, 6.1mm$H_2O$, 8.2mm$H_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| 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 | 13.59 |
| | Current Input | A | 17.7-16.8-16.2 | 20.3-19.3-18.6 | 23.4-22.2-21.4 |
| | EER | kW/kW | 4.27 | 4.14 | 4.03 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Outdoor | D.B. | -5.0~52.0°C | | |
| 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 |
| | Current Input | A | 18.6-17.7-17.0 | 21.5-20.2-19.5 | 24.4-23.2-22.3 |
| | COP | kW/kW | 4.52 | 4.43 | 4.35 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Outdoor | W.B. | -20.0~15.5°C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 61.0 / 62.0 | 62.0 / 63.0 | 63.0 / 64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | |
| | Gas Pipe | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | |
| | Air Flow Rate | $m^3$/min | 170 | | | 185 | | |
| | | L/s | 2,833 | | | 3,083 | | |
| | | cfm | 6,003 | | | 6,532 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 5.6 | | | 7.0 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | | | | | |
| Net Weight | | kg | 231 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) Brazed | | | | | |
| | Gas Pipe | mm (in.) | 22.2 (7/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y100VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP550YSNW-A-(BS) | PUHY-EP600YSNW-A-(BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 27.1-25.8-24.9 | 30.5-29.0-27.9 |
| | EER | kW/kW | 3.91 | 3.81 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 69.0 | 76.5 |
| | | BTU/h | 235,400 | 261,000 |
| | Power Input | kW | 16.31 | 18.47 |
| | Current Input | A | 27.5-26.1-25.2 | 31.1-29.6-28.5 |
| | COP | kW/kW | 4.25 | 4.84 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~47 | P15~P250/2~50 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 63.5 / 66.0 | 64.0 / 67.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 82.0 / 85.0 | 83.0 / 86.5 |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | |
| | Gas Pipe | mm (in.) | 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*4 | Type x Quantity | | Propeller Fan x 1 | | | |
| | Air Flow Rate | $m^3$/min | 185 | 240 | | |
| | | L/s | 3,083 | 4,000 | | |
| | | cfm | 6,532 | 8,474 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | |
| | Motor Output | kW | 0.92 x 1 | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 7.0 | 7.9 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | | | |
| Net Weight | | kg | 231 | 235 | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) Brazed | 12.7 (1/2) Brazed | | |
| | Gas Pipe | mm (in.) | 22.2 (7/8) Brazed | 28.58 (1-1/8) Brazed | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y100VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP650YSNW-A-(BS) | PUHY-EP700YSNW-A-(BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 32.8-31.2-30.0 | 36.1-34.3-33.1 |
| | EER | kW/kW | 3.75 | 3.73 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 81.5 | 88.0 |
| | | BTU/h | 278,100 | 300,300 |
| | Power Input | kW | 20.58 | 23.15 |
| | Current Input | A | 34.7-33.0-31.8 | 39.0-37.1-35.7 |
| | COP | kW/kW | 3.96 | 3.80 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 66.5 / 67.0 | 65.0 / 66.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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*4 | Type x Quantity | | Propeller Fan x 1 | Propeller Fan x 2 | | |
| | Air Flow Rate | $m^3$/min | 185 | 270 | | |
| | | L/s | 3,083 | 4,500 | | |
| | | cfm | 6,532 | 9,534 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | |
| | Motor Output | kW | 0.92 x 1 | 0.46 x 2 | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 7.0 | 10.9 | 9.8 | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | 1,858 (1,798 without legs) x 1,240 x 740 | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | R10A x 10.8kg | R10A x 9.8kg | |
| Net Weight | | kg | 231 | 305 | 285 | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) Brazed | 12.7 (1/2) Brazed | | |
| | Gas Pipe | mm (in.) | 22.2 (7/8) Brazed | 28.58 (1-1/8) Brazed | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y100VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP750YSNW-A (-BS) | PUHY-EP800YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 39.3-37.3-35.9 | 41.5-39.4-38.0 |
| | EER | kW/kW | 3.65 | 3.66 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 95.0 | 100.0 |
| | | BTU/h | 324,100 | 341,200 |
| | Power Input | kW | 25.33 | 27.10 |
| | Current Input | A | 42.7-40.6-39.1 | 45.7-43.1-41.8 |
| | COP | kW/kW | 3.75 | 3.69 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 67.0 / 67.5 | 67.5 / 70.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 84.5 / 86.5 | 85.5 / 89.5 |
| 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 | | | PUHY-EP350YNW-A (-BS) | PUHY-EP400YNW-A (-BS) | PUHY-EP350YNW-A (-BS) | PUHY-EP450YNW-A (-BS) |
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | | |
| | Air Flow Rate | $m^3$/min | 270 | | | 305 |
| | | L/s | 4,500 | | | 5,083 |
| | | cfm | 9,534 | | | 10,770 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | |
| | Motor Output | kW | 0.46 x 2 | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 9.8 | 10.9 | 9.8 | 12.4 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 9.8kg | R10A x 10.8kg | R10A x 9.8kg | R10A x 10.8kg |
| Net Weight | | kg | 285 | 305 | 285 | 305 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | |
| 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 | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y200VBK2<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP850YSNW-A (-BS) | PUHY-EP900YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | |
| Cooling Capacity (Nominal)*1 | | kW | 96.0 | 101. |
| | | BTU/h | 327,600 | 344,600 |
| | Power Input | kW | 26.76 | 27.97 |
| | Current Input | A | 45.1-42.8-41.3 | 47.2-44.8-43.2 |
| | EER | kW/kW | 3.59 | 3.61 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 108.0 | 113.0 |
| | | BTU/h | 368,500 | 385,600 |
| | Power Input | kW | 29.50 | 31.30 |
| | Current Input | A | 49.8-47.3-45.6 | 52.8-50.1-48.3 |
| | COP | kW/kW | 3.55 | 3.61 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 68.5 / 71.0 | 68.5 / 72.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 86.0 / 90.0 | 86.5 / 91.5 |
| 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-EP400YNW-A (-BS) | PUHY-EP450YNW-A (-BS) | PUHY-EP450YNW-A (-BS) | PUHY-EP450YNW-A (-BS) |
| FAN*4 | Type x Quantity | | Propeller Fan x 2 | | | |
| | Air Flow Rate | $m^3$/min | 270 | 305 | | |
| | | L/s | 4,500 | 5,083 | | |
| | | cfm | 9,534 | 10,770 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | |
| | Motor Output | kW | 0.46 x 2 | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 10.9 | 12.4 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 10.8kg | | | |
| Net Weight | | kg | 305 | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y200VBK2<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2<br>Header: CMY-Y104/108/1010-G | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP950YSNW-A (-BS) | PUHY-EP1000YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 47.8-45.4-43.8 | 50.9-48.4-46.6 |
| | EER | kW/kW | 3.81 | 3.74 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 119.5 | 127.0 |
| | | BTU/h | 407,700 | 433,300 |
| | Power Input | kW | 30.32 | 32.56 |
| | Current Input | A | 51.1-48.6-46.8 | 54.9-52.2-50.3 |
| | COP | kW/kW | 3.94 | 3.90 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 66.0 / 67.5 | 68.0 / 68.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 84.5 / 86.5 | 85.5 / 87.5 |
| 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-EP250YNW-A (-BS) | PUHY-EP350YNW-A (-BS) | PUHY-EP350YNW-A (-BS) | PUHY-EP250YNW-A (-BS) | PUHY-EP350YNW-A (-BS) | PUHY-EP400YNW-A (-BS) |
|---|---|---|---|---|---|---|---|---|
| FAN *4 | Type x Quantity | | Propeller Fan x 1 | Propeller Fan x 2 | | Propeller Fan x 1 | Propeller Fan x 2 | |
| | Air Flow Rate | m³/min | 185 | 270 | | 185 | 270 | |
| | | L/s | 3,083 | 4,500 | | 3,083 | 4,500 | |
| | | cfm | 6,532 | 9,534 | | 6,532 | 9,534 | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | 0.46 x 2 | | 0.92 x 1 | 0.46 x 2 | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 9.8 | | 7.0 | 9.8 | 10.9 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions 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 920 x 740 | 1,858 (1,798 without legs) x 1,240 x 740 | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | R10A x 9.8kg | | R10A x 6.5kg | R10A x 9.8kg | R10A x 10.8kg |
| Net Weight | | kg | 231 | 285 | | 231 | 285 | 305 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) 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 | | 22.2 (7/8) Brazed | 28.58 (1-1/8) Brazed | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP1050YSNW-A (-BS) | PUHY-EP1100YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 54.1-51.4-49.5 | 57.0-54.1-52.2 |
| | EER | kW/kW | 3.68 | 3.67 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 132.0 | 140.0 |
| | | BTU/h | 450,400 | 477,700 |
| | Power Input | kW | 34.19 | 37.13 |
| | Current Input | A | 57.7-54.8-52.8 | 62.6-59.5-57.3 |
| | COP | kW/kW | 3.86 | 3.77 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/3~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 68.5 / 69.0 | 68.5 / 69.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 86.0 / 88.0 | 86.0 / 89.0 |
| 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-EP250YNW-A(-BS) | PUHY-EP400YNW-A(-BS) | PUHY-EP400YNW-A(-BS) | PUHY-EP350YNW-A(-BS) | PUHY-EP350YNW-A(-BS) | PUHY-EP400YNW-A(-BS) |
| FAN *4 | Type x Quantity | | Propeller Fan x 1 | Propeller Fan x 2 | | | | |
| | Air Flow Rate | m³/min | 185 | 270 | | | | |
| | | L/s | 3,083 | 4,500 | | | | |
| | | cfm | 6,532 | 9,534 | | | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | 0.46 x 2 | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 10.9 | | 9.8 | | 10.9 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | 1,858 (1,798 without legs) x 1,240 x 740 | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R10A x 6.5kg | R10A x 10.8kg | | R10A x 9.8kg | | R10A x 10.8kg |
| Net Weight | | kg | 231 | 305 | | 285 | | 305 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 9.52 (3/8) Brazed | 15.88 (5/8) 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 | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP1150YSNW-A (-BS) | PUHY-EP1200YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 60.6-57.5-55.6 | 64.3-61.0-58.8 |
| | EER | kW/kW | 3.62 | 3.57 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 145.0 | 150.0 |
| | | BTU/h | 494,700 | 511,800 |
| | Power Input | kW | 38.77 | 40.43 |
| | Current Input | A | 65.4-62.1-59.9 | 68.2-64.8-62.4 |
| | COP | kW/kW | 3.74 | 3.71 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/3~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 69.0 / 69.5 | 70.0 / 70.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 86.5 / 88.5 | 87.5 / 89.5 |
| 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-EP350YNW-A (-BS) | PUHY-EP400YNW-A (-BS) | PUHY-EP400YNW-A (-BS) | PUHY-EP400YNW-A (-BS) | PUHY-EP400YNW-A (-BS) | PUHY-EP400YNW-A (-BS) |
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 270 | | | | | |
| | | L/s | 4,500 | | | | | |
| | | cfm | 9,534 | | | | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 9.8 | 10.9 | | | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R10A x 9.8kg | R10A x 10.8kg | | | | |
| Net Weight | | kg | 285 | 305 | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (n.) | 12.7 (1/2) Brazed | 15.88 (5/8) Brazed | | | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PUHY-EP1250YSNW-A (-BS) | PUHY-EP1300YSNW-A(-BS) |
|---|---|---|---|---|
| Power Source | | | 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 |
| | Current Input | A | 65.8-62.5-60.2 | 68.4-65.0-62.6 |
| | EER | kW/kW | 3.59 | 3.60 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Outdoor | D.B. | -5.0~52.0°C | |
| Heating Capacity (Max)*2 | | kW | 156.5 | 163.0 |
| | | BTU/h | 534,000 | 556,200 |
| | Power Input | kW | 42.52 | 44.78 |
| | Current Input | A | 71.7-68.1-65.7 | 75.5-71.8-69.2 |
| | COP | kW/kW | 3.68 | 3.64 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Outdoor | W.B. | -20.0~15.5°C | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | |
| | Model/Quantity | | P15~P250/3~50 | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 70.0 / 72.0 | 70.0 / 73.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 87.5 / 91.0 | 88.0 / 92.5 |
| 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-EP400YNW-A(-BS) | PUHY-EP400YNW-A(-BS) | PUHY-EP450YNW-A(-BS) | PUHY-EP400YNW-A(-BS) | PUHY-EP450YNW-A(-BS) | PUHY-EP450YNW-A(-BS) |
|---|---|---|---|---|---|---|---|---|
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 270 | | 305 | 270 | 305 | |
| | | L/s | 4,500 | | 5,083 | 4,500 | 5,083 | |
| | | cfm | 9,534 | | 10,770 | 9,534 | 10,770 | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 10.9 | | 12.4 | 10.9 | 12.4 | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R10A x 10.8kg | | | | | |
| Net Weight | | kg | 305 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | | | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - Y Series Heat Pump

## PUHY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| | Current Input | A | 70.1-66.6-64.2 | | |
| | EER | kW/kW | 3.61 | | |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Outdoor | D.B. | -5.0~52.0°C | | |
| Heating Capacity (Max)*2 | | kW | 168.0 | | |
| | | BTU/h | 573,200 | | |
| | Power Input | kW | 46.53 | | |
| | Current Input | A | 78.5-74.6-71.9 | | |
| | COP | kW/kW | 3.61 | | |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Outdoor | W.B. | -20.0~15.5°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/3~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 70.0 / 74.5 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | |
| | Air Flow Rate | $m^3$/min | 305 | | |
| | | L/s | 5,083 | | |
| | | cfm | 10,770 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | |
| | Motor Output | kW | 0.46 x 2 | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 12.4 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | |
| 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 | | |
| Refrigerant | Type x Original Charge | | R10A x 10.8kg | | |
| Net Weight | | kg | 305 | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | |
| Pipe Between Unit and Distributor | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-Y300VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2<br>Header: CMY-Y104/108/1010-G | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 3.1$mmH_2O$, 6.1$mmH_2O$, 8.2$mmH_2O$).
Consult your dealer about the specification when setting External Static Pressure option.
*5 Due to continuing improvement, above specification may be subject to change without notice.
*6 Subject to JRA9002-1991 standard

# OUTDOOR UNIT - R2 Series Heat Recovery

## PURY-P YNW-A(-BS)

| 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 | | | |
| 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 | 0.86 |
| | Current Input | A | 9.4-9.0-8.6 | 12.5-11.9-11.5 | 15.4-14.6-14.1 | 18.3-17.4-16.7 |
| | EER | kW/kW | 3.98 | 3.75 | 3.66 | 3.68 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | | |
| | Outdoor | D.B. | -5.0~52.0°C | | | |
| 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 |
| | Current Input | A | 10.0-9.5-9.2 | 12.9-11.9-11.5 | 16.8-15.9-15.4 | 19.4-18.4-17.7 |
| | COP | kW/kW | 4.18 | 4.10 | 3.76 | 3.91 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | | |
| | Outdoor | W.B. | -20.0~15.5°C | | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | | |
| | 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)*3 | | dB <A> | 59.0/59.0 | 60.5/61.0 | 61.0/67.0 | 62.5/64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 19.05 (3/4) Brazed | 22.2 (7/8) Brazed | | 28.58 (1-1/8) Brazed |
| FAN *4 | Type x Quantity | | 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 | | | |
| | Motor Output | kW | 0.92 x 1 | | | 0.46 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 5.6 | 7.0 | 7.9 | 10.2 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 5.2kg | | | R10A x 8.0kg |
| Net Weight | | kg | 229 | | 231 | 273 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | |
| Optional Parts | | | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>BC Controller: CMB-P104, 106, 108,1012, 1016V-J<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-P YNW-A(-BS)

| Model | | | PURY-P400YNW-A (-BS) | PURY-P450YNW-A(-BS) | PURY-P500YNW-A (-BS) |
|---|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 45.0 | 50.0 | 56.0 |
| | | BTU/h | 153,500 | 170,600 | 191,100 |
| | Power Input | kW | 12.93 | 14.92 | 16.23 |
| | Current Input | A | 21.4-20.7-19.9 | 25.1-23.9-23.0 | 27.3-26.0-25.0 |
| | EER | kW/kW | 3.88 | 3.35 | 3.45 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 23.4-22.3-21.5 | 27.8-26.4-25.4 | 27.3-26.0-25.0 |
| | COP | kW/kW | 3.59 | 3.40 | 3.88 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 65.0 / 69.0 | 65.5 / 70.0 | 63.5 / 64.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | |
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | |
| | Air Flow Rate | $m^3$/min | 315 | | 295 |
| | | L/s | 5,250 | | 4,917 |
| | | cfm | 11,123 | | 10,416 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | |
| | Motor Output | kW | 0.46 x 2 | | 0.92 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 10.9 | 12.4 | 13.0 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | |
| External Dimensions HxWxD | | mm | 1,858 x 1,240 x 740 | | |
| 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 | | |
| Refrigerant | Type x Original Charge | | R410A x 8.0kg | R410A x 10.8kg | |
| Net Weight | | kg | 273 | 293 | 337 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | |
| Optional Parts | | | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-P YSNW-A(-BS)

| 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 | | |
| 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 |
| | Current Input | A | 19.6-18.6-18.0 | 22.5-21.3-20.6 | 25.9-24.6-23.7 |
| | EER | kW/kW | 3.86 | 3.75 | 3.64 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 20.8-19.7-19.0 | 25.5-22.3-21.5 | 26.7-25.3-24.4 |
| | COP | kW/kW | 4.05 | 4.2 | 3.98 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 62.0 / 62.0 | 63.0 / 63.5 | 63.5 / 64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | |
| | Air Flow Rate | $m^3$/min | 170 | | | 185 | | |
| | | L/s | 2,833 | | | 3,083 | | |
| | | cfm | 6,003 | | | 6,532 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 5.6 | | | 7.0 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.2kg | | | | | |
| Net Weight | | kg | 229 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 15.88 (5/8) Brazed | | | | | |
| | Low Pressure | mm (in.) | 19.05 (3/4) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-P YSNW-A(-BS)

| 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 | | |
| 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 |
| | Current Input | A | 29.6-28.1-27.1 | 32.8-31.1-30.0 | 34.6-32.8-31.5 |
| | EER | kW/kW | 3.59 | 3.55 | 3.56 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 30.5-29.0-27.9 | 35.3-33.5-32.3 | 36.9-35.1-33.8 |
| | COP | kW/kW | 3.81 | 3.65 | 3.72 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 64.0 / 68.0 | 64.0 / 70.0 | 65.0 / 69.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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<br>(28.58 (1-1/8) Brazed for the part that exceeds 65 m) | | 28.58 (1-1/8) Brazed |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | Propeller Fan x 2 |
| | Air Flow Rate | m³/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 | | | | | |
| | 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 Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 7.9 | | | | 10.2 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | | | 1,858 (1,798 without legs) x 1,240 x 740 |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.2kg | | | | | R410A x 8.0 kg |
| Net Weight | | kg | 229 | 231 | | | | 273 (602) |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 19.05 (3/4) Brazed | | | | | |
| | Low Pressure | mm (in.) | 22.2 (7/8) Brazed | | | | | 28.58 (1-1/8) Brazed |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1<br>Main BC Controller: CMB-P108,1012,1016V-JA,CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-P YSNW-A(-BS)

| 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 | | |
| 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 |
| | Current Input | A | 37.9-36.0-34.7 | 41.4-39.5-37.9 | 44.9-42.6-41.1 |
| | EER | kW/kW | 3.56 | 3.46 | 3.38 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 39.1-37.2-35.8 | 44.0-41.8-40.3 | 48.5-46.0-44.4 |
| | COP | kW/kW | 3.79 | 3.64 | 3.48 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 65.5 / 67.0 | 67.0 / 70.5 | 68.0 / 72.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 250 | | | 315 | | |
| | | L/s | 4,167 | | | 5,250 | | |
| | | cfm | 8,828 | | | 11,123 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 10.2 | | | 10.9 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 8.0kg | | | | | |
| Net Weight | | kg | 273 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 19.05 (3/4) Brazed | | | 22.2 (7/8) Brazed | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-P YSNW-A(-BS)

| 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 | | |
| Cooling Capacity (Nominal)*1 | | kW | 96.0 | 101.0 | 108.0 |
| | | BTU/h | 327.600 | 344,600 | 368,500 |
| | Power Input | kW | 29.80 | 31.07 | 33.23 |
| | Current Input | A | 48.9-46.5-44.8 | 52.4-49.8-48.0 | 56.0-53.2-51.3 |
| | EER | kW/kW | 3.31 | 3.25 | 3.25 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 53.7-51.0-49.2 | 57.8-54.9-52.9 | 57.1-54.2-52.3 |
| | COP | kW/kW | 3.39 | 3.30 | 3.53 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 68.5 / 72.5 | 68.5 / 73.0 | 68.0 / 71.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 315 | | | | | 295 |
| | | L/s | 5,250 | | | | | 4,917 |
| | | cfm | 11,123 | | | | | 10,416 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | 0.92 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 10.9 | 12.4 | | | | 13.0 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 8.0kg | | | | | |
| Net Weight | | kg | 273 | 293 | | | | 337 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 22.2 (7/8) Brazed | | | | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-P YSNW-A(-BS)

| 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 | | |
| Cooling Capacity (Nominal)*1 | | kW | 113.0 | 118.0 | 124.0 |
| | | BTU/h | 385,600 | 402,600 | 423,100 |
| | Power Input | kW | 33.73 | 29.20 | 32.54 |
| | Current Input | A | 56.9-54.0-52.1 | 49.2-46.8-45.1 | 54.9-52.1-50.2 |
| | EER | kW/kW | 3.35 | 4.04 | 3.81 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| Heating Capacity (Max)*2 | | kW | 127.0 | 132.0 | 140.0 |
| | | BTU/h | 433,300 | 450,400 | 177,700 |
| | Power Input | kW | 33.77 | 34.10 | 37.52 |
| | Current Input | A | 57.0-54.1-52.2 | 57.5-54.6-52.7 | 63.3-60.1-57.9 |
| | COP | kW/kW | 3.76 | 3.87 | 3.73 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 66.5 / 67.5 | 68.0 / 73.0 | 69.0 / 73.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |

| 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 295 | | | 410 | | |
| | | L/s | 4,917 | | | 6,833 | | |
| | | cfm | 10,416 | | | 14,477 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 13.0 | | | 14.3 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,750 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 10.8kg | | | | | |
| Net Weight | | kg | 337 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Copper Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 22.2 (7/8) Brazed | | | | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YNW-A(-BS) / HIGH EFFICIENCY

| 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 | | | |
| 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 | 7.0 | 8.98 | 10.49 |
| | Current Input | A | 9.0-8.6-8.3 | 11.8-11.2-10.8 | 15.1-14.4-13.8 | 17.7-16.8-16.2 |
| | EER | kW/kW | 4.16 | 4.0 | 3.73 | 3.81 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | | |
| | Outdoor | D.B. | -5.0~52.0°C | | | |
| 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 |
| | Current Input | A | 9.9-9.4-9.0 | 12.8-12.1-11.7 | 16.7-15.9-15.3 | 19.5-18.7-17.9 |
| | COP | kW/kW | 4.25 | 5.26 | 3.77 | 3.88 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | | |
| | Outdoor | W.B. | -20.0~15.5°C | | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | | |
| | 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)*3 | | dB <A> | 59.0 / 59.0 | 60.5 / 61.0 | 61.0 / 67.0 | 62.5 / 64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 19.05 (3/4) Brazed | 22.2 (7/8) Brazed | | 28.58 (1-1/8) Brazed |
| FAN *4 | Type x Quantity | | Propeller Fan x 1 | | | Propeller Fan x 2 |
| | Air Flow Rate | m³/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 | | | |
| | Motor Output | kW | 0.92 x 1 | | | 0.46 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 5.6 | 7.0 | 7.9 | 10.2 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | |
| 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 | | | |
| Refrigerant | Type x Original Charge | | R10A x 5.2kg | | | R10A x 8.0kg |
| Net Weight | | kg | 234 | | 236 | 279 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | |
| Optional Parts | | | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>BC Controller: CMB-P104, 106, 108,1012, 1016V-J<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YNW-A(-BS) / HIGH EFFICIENCY

| Model | | | PURY-EP400YNW-A (-BS) | PURY-EP450YNW-A(-BS) | PURY-EP500YNW-A (-BS) |
|---|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 45.0 | 50.0 | 56.0 |
| | | BTU/h | 153,500 | 170,600 | 191,100 |
| | Power Input | kW | 12.52 | 13.55 | 16.09 |
| | Current Input | A | 21.6-20.5-19.8 | 22.8-21.7-20.9 | 27.1-25.8-24.8 |
| | EER | kW/kW | 3.51 | 3.69 | 3.48 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 22.3-21.2-20.4 | 26.7-25.4-24.5 | 25.5-24.2-23.4 |
| | COP | kW/kW | 3.77 | 3.53 | 4.16 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 65.0 / 69.0 | 65.5 / 70.0 | 63.5 / 64.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | |
| FAN *4 | Type x Quantity | | Propeller Fan x 2 | | |
| | Air Flow Rate | $m^3$/min | 315 | | 295 |
| | | L/s | 5,250 | | 4,917 |
| | | cfm | 11,123 | | 10,416 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | |
| | Motor Output | kW | 0.46 x 2 | | 0.92 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 10.9 | 12.4 | 13.0 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | 1,858 (1,798 without legs) x 1,750 x 740 |
| 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 | | |
| Refrigerant | Type x Original Charge | | R410A x 8.0kg | R410A x 10.8kg | |
| Net Weight | | kg | 282 | 306 | 345 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | |
| Optional Parts | | | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| 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 |
| | Current Input | A | 18.7-17.8-17.2 | 21.3-20.2-19.5 | 24.8-23.1-22.3 |
| | EER | kW/kW | 4.04 | 3.96 | 3.88 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 20.4-19.4-18.7 | 23.2-22.0-21.2 | 26.3-25.0-24.1 |
| | COP | kW/kW | 4.12 | 4.07 | 4.03 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 62.0 / 62.0 | 63.0 / 63.5 | 63.5 / 64.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | |
| | Air Flow Rate | $m^3$/min | 170 | | | 185 | | |
| | | L/s | 2,833 | | | 3,083 | | |
| | | cfm | 6,003 | | | 6,532 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 5.6 | | | 7.0 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.2kg | | | | | |
| Net Weight | | kg | 234 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 15.88 (5/8) Brazed | | | 19.05 (3/4) Brazed | | |
| | Low Pressure | mm (in.) | 19.05 (3/4) Brazed | | | 22.2 (7/8) Brazed | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| 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 |
| | Current Input | A | 28.3-26.9-25.9 | 32.1-30.5-29.4 | 33.6-31.9-30.8 |
| | EER | kW/kW | 3.75 | 3.62 | 3.66 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| Heating Capacity (Max)*2 | | kW | 69.0 | 76.5 | 81.5 |
| | | BTU/h | 235,400 | 261,00 | 278,100 |
| | Power Input | kW | 17.96 | 20.90 | 21.96 |
| | Current Input | A | 30.3-28.8-27.7 | 35.2-33.5-32.3 | 37.0-35.2-33.9 |
| | COP | kW/kW | 3.84 | 3.66 | 3.71 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 64.0 / 68.0 | 64.0 / 89.5 | 83.5 / 88.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 (for the part that exceeds 65m) | | 28.58 (1-1/8) Brazed |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 1 | | | | | Propeller Fan x 2 |
| | Air Flow Rate | m³/min | 185 | 240 | | | | 250 |
| | | L/s | 3,083 | 4,000 | | | | 4,167 |
| | | cfm | 6,532 | 8,474 | | | | 8,828 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 1 | | | | | 0.46 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.0 | 7.9 | | | | 10.2 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 920 x 740 | | | | | 1,858 (1,798 without legs) x 1,240 x 740 |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.2kg | | | | | R410A x 8.0kg |
| Net Weight | | kg | 234 | 236 | | | | 279 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 19.05 (3/4) Brazed | | | | | |
| | Low Pressure | mm (in.) | 22.2 (7/8) Brazed | | | | | 28.58 (1-1/8) Brazed |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| 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 |
| | Current Input | A | 36.4-34.6-33.4 | 40.4-38.3-37.0 | 44.6-42.4-40.9 |
| | EER | kW/kW | 3.70 | 3.55 | 3.40 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| Heating Capacity (Max)*2 | | kW | 88.0 | 95.0 | 100.0 |
| | | BTU/h | 300,300 | 324,100 | 341,200 |
| | Power Input | kW | 23.4 | 25.60 | 27.32 |
| | Current Input | A | 39.5-37.5-36.1 | 43.2-41.0-39.5 | 46.1-43.4-42.2 |
| | COP | kW/kW | 3.76 | 3.71 | 3.66 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 65.5 / 67.0 | 67.0 / 70.5 | 68.0 / 72.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 250 | | | 315 | | |
| | | L/s | 4,167 | | | 5,250 | | |
| | | cfm | 8,828 | | | 11,123 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 10.2 | | | 10.9 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 8.0kg | | | | | |
| Net Weight | | kg | 279 | | | 282 | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 19.05 (3/4) Brazed | | | 22.2 (7/8) Brazed | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| Cooling Capacity (Nominal)*1 | | kW | 96.0 | 10.1.0 | 108.0 |
| | | BTU/h | 327.600 | 344,600 | 368,500 |
| | Power Input | kW | 27.50 | 28.21 | 30.16 |
| | Current Input | A | 46.4-44.1-42.5 | 47.6-45.2-43.6 | 50.9-48.3-46.6 |
| | EER | kW/kW | 3.49 | 3.58 | 3.58 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| 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 |
| | Current Input | A | 51.4-48.9-47.5 | 55.7-52.9-51.0 | 54.0-51.3-49.5 |
| | COP | kW/kW | 3.54 | 3.42 | 3.75 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | dB <A> | 68.5 / 72.5 | 68.5 / 73.0 | 68.0 / 71.5 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 315 | | | | | 295 |
| | | L/s | 5,250 | | | | | 4,917 |
| | | cfm | 11,123 | | | | | 10,416 |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.46 x 2 | | | | | 0.92 x 2 |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 10.9 | 12.4 | | | | 13.0 |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | | | | | 1,858 (1,798 without legs) x 1,750 x 740 |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 8.0kg | R410A x 10.8kg | | | | |
| Net Weight | | kg | 282 | 306 | | | | 345 |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 22.2 (7/8) Brazed | | | | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1012, 1016V-JA, CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 - R2 Series Heat Recovery

## PURY-EP YSNW-A(-BS) / HIGH EFFICIENCY

| 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 | | |
| Cooling Capacity (Nominal)*1 | | kW | 113.0 | 118.0 | 124.0 |
| | | BTU/h | 385,600 | 402,600 | 423,100 |
| | Power Input | kW | 33.43 | 29.13 | 32.46 |
| | Current Input | A | 56.4-53.6-51.6 | 49.1-46.7-45.0 | 54.7-52.0-50.1 |
| | EER | kW/kW | 3.38 | 4.05 | 3.82 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0 °C | | |
| | Outdoor | D.B. | -5.0~52.0 °C | | |
| Heating Capacity (Max)*2 | | kW | 127.0 | 132.0 | 140.0 |
| | | BTU/h | 433,300 | 450,400 | 177,700 |
| | Power Input | kW | 31.43 | 32.58 | 36.83 |
| | Current Input | A | 53.0-50.4-48.5 | 55.0-52.2-50.3 | 62.1-59.0-56.9 |
| | COP | kW/kW | 4.04 | 4.05 | 3.08 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0 °C | | |
| | Outdoor | W.B. | -20.0~15.5 °C | | |
| Indoor Unit Connectable | Total 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)*3 | | dB <A> | 66.5 / 67.5 | 68.0 / 73.0 | 69.0 / 73.0 |
| Sound Pressure Level (Measured in Anechoic Room)*3 | | 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 | |
| | Low Pressure | mm (in.) | 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 *4 | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Air Flow Rate | $m^3$/min | 295 | | | 410 | | |
| | | L/s | 4,917 | | | 6,833 | | |
| | | cfm | 10,416 | | | 14,477 | | |
| | Control, Driving Mechanism | | Inverter-Control, Direct-Driven by Motor | | | | | |
| | Motor Output | kW | 0.92 x 2 | | | | | |
| | External Static Pressure | | 0 Pa (0 $mmH_2O$) | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 13.0 | | | 14.3 | | |
| External Finish | | | Pre-Coated Galvanised Steel Sheets (+ Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar> | | | | | |
| External Dimensions HxWxD | | mm | 1,858 (1,798 without legs) x 1,750 x 740 | | | | | |
| 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 | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 10.8kg | | | | | |
| Net Weight | | kg | 345 | | | | | |
| Heat Exchanger | | | Salt-Resistant Cross Fin and Aluminium Tube*6 | | | | | |
| Pipe Between Unit and Distributor | High Pressure | mm (in.) | 22.2 (7/8) Brazed | | | | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | | | | |
| Optional Parts | | | Outdoor Twinning Kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P1016V-KA<br>Sub-BC Controller: CMB-P104V-KB | | | | | |

**Notes:**

*1, *2 Nominal conditions (subject to JIS B8615-1).

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*3 Cooling mode/heating mode.
*4 External Static Pressure option is available (30Pa, 60Pa, 80Pa / 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 Heat Pump

## PUHY-P•Y(S)NW-A(-BS)

| Model | Refrigerant | | Factory Charged | | Maximum Additional Charge | | Total Charge | |
|---|---|---|---|---|---|---|---|---|
| | Type | GWP | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* |
| PUHY-P200YNW-A (-BS) | R410A | 2088 | 6.5 | 13.57 | 15.9 | 33.20 | 22.4 | 46.77 |
| PUHY-P250YNW-A (-BS) | | | 6.5 | 13.57 | 22.9 | 47.82 | 29.4 | 61.39 |
| PUHY-P300YNW-A (-BS) | | | 6.5 | 13.57 | 23.4 | 48.86 | 29.9 | 61.43 |
| PUHY-P350YNW-A (-BS) | | | 9.8 | 20.46 | 24.4 | 50.95 | 34.2 | 71.41 |
| PUHY-P400YNW-A (-BS) | | | 9.8 | 20.46 | 24.9 | 51.99 | 34.7 | 72.45 |
| PUHY-P450YNW-A (-BS) | | | 10.8 | 22.55 | 33.1 | 69.11 | 43.9 | 91.66 |
| PUHY-P500YNW-A (-BS) | | | 10.8 | 22.55 | 34.0 | 70.99 | 44.8 | 93.54 |
| PUHY-P400YSNW-A (-BS) | | | 13.0 | 27.14 | 32.0 | 66.82 | 45.0 | 93.96 |
| PUHY-P450YSNW-A (-BS) | | | 13.0 | 27.14 | 32.0 | 66.83 | 45.0 | 93.96 |
| PUHY-P500YSNW-A (-BS) | | | 13.0 | 27.14 | 32.9 | 68.70 | 45.9 | 95.84 |
| PUHY-P550YSNW-A (-BS) | | | 13.0 | 27.14 | 34.7 | 72.45 | 47.7 | 99.60 |
| PUHY-P600YSNW-A (-BS) | | | 13.0 | 27.14 | 34.7 | 72.45 | 47.7 | 99.60 |
| PUHY-P650YSNW-A (-BS) | | | 16.3 | 34.03 | 35.7 | 74.54 | 52.0 | 108.58 |
| PUHY-P700YSNW-A (-BS) | | | 19.6 | 40.92 | 45.7 | 95.42 | 65.3 | 136.35 |
| PUHY-P750YSNW-A (-BS) | | | 19.6 | 40.92 | 45.7 | 95.42 | 65.3 | 136.35 |
| PUHY-P800YSNW-A (-BS) | | | 20.6 | 43.01 | 46.0 | 96.05 | 66.6 | 139.06 |
| PUHY-P850YSNW-A (-BS) | | | 20.6 | 43.01 | 47.8 | 99.81 | 68.4 | 145.82 |
| PUHY-P900YSNW-A (-BS) | | | 21.6 | 45.10 | 48.2 | 100.64 | 69.8 | 145.74 |
| PUHY-P950YSNW-A (-BS) | | | 23.8 | 49.69 | 47.1 | 98.34 | 70.9 | 148.04 |
| PUHY-P1000YSNW-A (-BS) | | | 26.1 | 54.50 | 46.8 | 97.72 | 72.9 | 152.22 |
| PUHY-P1050YSNW-A (-BS) | | | 26.1 | 54.50 | 46.8 | 97.72 | 72.9 | 152.22 |
| PUHY-P1100YSNW-A (-BS) | | | 29.4 | 61.39 | 47.0 | 98.14 | 76.4 | 159.52 |
| PUHY-P1150YSNW-A (-BS) | | | 29.4 | 61.39 | 47.0 | 98.14 | 76.4 | 159.52 |
| PUHY-P1200YSNW-A (-BS) | | | 29.4 | 61.39 | 47.0 | 98.14 | 76.4 | 159.52 |
| PUHY-P1250YSNW-A (-BS) | | | 30.4 | 63.48 | 49.1 | 102.52 | 79.5 | 166.00 |
| PUHY-P1300YSNW-A (-BS) | | | 31.4 | 65.56 | 49.5 | 103.36 | 80.9 | 168.92 |
| PUHY-P1350YSNW-A (-BS) | | | 32.4 | 67.65 | 49.8 | 103.98 | 82.2 | 171.63 |

## PUHY-EP•Y(S)NW-A(-BS)

| Model | Refrigerant | | Factory Charged | | Maximum Additional Charge | | Total Charge | |
|---|---|---|---|---|---|---|---|---|
| | Type | GWP | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* |
| PUHY-EP200YNW-A (-BS) | R410A | 2088 | 6.5 | 13.57 | 15.9 | 33.20 | 22.4 | 46.77 |
| PUHY-EP250YNW-A (-BS) | | | 6.5 | 13.57 | 22.9 | 47.82 | 29.4 | 61.39 |
| PUHY-EP300YNW-A (-BS) | | | 6.5 | 13.57 | 23.4 | 48.86 | 29.9 | 62.43 |
| PUHY-EP350YNW-A (-BS) | | | 9.8 | 20.46 | 24.4 | 50.95 | 34.2 | 71.41 |
| PUHY-EP400YNW-A (-BS) | | | 10.8 | 22.55 | 25.2 | 52.62 | 36.0 | 75.17 |
| PUHY-EP450YNW-A (-BS) | | | 10.8 | 22.55 | 33.1 | 69.11 | 43.9 | 91.66 |
| PUHY-EP500YNW-A (-BS) | | | 10.8 | 22.55 | 34.0 | 70.99 | 44.8 | 93.54 |
| PUHY-EP550YSNW-A (-BS) | | | 13.0 | 27.14 | 34.7 | 72.45 | 47.7 | 99.60 |
| PUHY-EP600YSNW-A (-BS) | | | 13.0 | 27.14 | 34.7 | 72.45 | 47.7 | 99.60 |
| PUHY-EP650YSNW-A (-BS) | | | 17.3 | 36.12 | 36.0 | 75.17 | 53.3 | 111.29 |
| PUHY-EP700YSNW-A (-BS) | | | 19.6 | 40.92 | 45.7 | 95.42 | 65.3 | 136.35 |
| PUHY-EP750YSNW-A (-BS) | | | 20.6 | 43.01 | 46.0 | 96.05 | 66.6 | 139.06 |
| PUHY-EP800YSNW-A (-BS) | | | 20.6 | 43.01 | 46.0 | 96.05 | 66.6 | 139.06 |
| PUHY-EP850YSNW-A (-BS) | | | 21.6 | 45.10 | 48.2 | 100.64 | 69.8 | 145.74 |
| PUHY-EP900YSNW-A (-BS) | | | 21.6 | 45.10 | 48.2 | 100.64 | 69.8 | 145.74 |
| PUHY-EP950YSNW-A (-BS) | | | 23.8 | 49.69 | 47.1 | 98.34 | 70.9 | 148.04 |
| PUHY-EP1000YSNW-A (-BS) | | | 27.1 | 56.58 | 47.2 | 98.55 | 74.3 | 155.14 |
| PUHY-EP1050YSNW-A (-BS) | | | 28.1 | 58.67 | 47.5 | 99.18 | 75.6 | 157.85 |
| PUHY-EP1100YSNW-A (-BS) | | | 30.4 | 63.48 | 47.3 | 98.76 | 77.7 | 162.24 |
| PUHY-EP1150YSNW-A (-BS) | | | 31.4 | 65.56 | 47.7 | 99.60 | 79.1 | 165.16 |
| PUHY-EP1200YSNW-A (-BS) | | | 32.4 | 67.65 | 48.0 | 100.22 | 80.4 | 167.88 |
| PUHY-EP1250YSNW-A (-BS) | | | 32.4 | 67.65 | 49.8 | 103.98 | 82.2 | 171.63 |
| PUHY-EP1300YSNW-A (-BS) | | | 32.4 | 67.65 | 49.8 | 103.98 | 82.2 | 171.63 |
| PUHY-EP1350YSNW-A (-BS) | | | 32.4 | 67.65 | 49.8 | 103.98 | 82.2 | 171.63 |

*This table is based on Regulation (EU) No 517/2014.

# OUTDOOR UNIT - R2 Series Heat Recovery

## PURY-P•Y(S)NW-A(-BS) / CONTAINS FLUORINATED GREENHOUSES GASES

| Model | Refrigerant | | Factory Charged | | Maximum Additional Charge | | Total Charge | |
|---|---|---|---|---|---|---|---|---|
| | Type | GWP | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* |
| PURY-P200YNW-A (-BS) | R410A | 2088 | 5.2 | 10.86 | 31.8 | 66.40 | 37.0 | 77.26 |
| PURY-P250YNW-A (-BS) | | | 5.2 | 10.86 | 37.8 | 78.93 | 43.0 | 89.78 |
| PURY-P300YNW-A (-BS) | | | 5.2 | 10.86 | 37.8 | 78.93 | 43.0 | 89.78 |
| PURY-P350YNW-A (-BS) | | | 8.0 | 16.70 | 41.3 | 86.23 | 43.9 | 102.94 |
| PURY-P400YNW-A (-BS) | | | 8.0 | 16.70 | 47.3 | 98.76 | 55.3 | 115.47 |
| PURY-P450YNW-A (-BS) | | | 10.8 | 22.55 | 44.5 | 92.92 | 56.0 | 116.93 |
| PURY-P500YNW-A (-BS) | | | 10.8 | 22.55 | 45.2 | 94.38 | 56.0 | 116.93 |
| PURY-P550YNW-A (-BS) | | | 10.8 | 22.55 | 45.2 | 94.38 | 56.0 | 116.93 |
| PURY-P400YSNW-A (-BS) | | | 10.4 | 21.72 | 60.6 | 126.53 | 71.0 | 148.25 |
| PURY-P450YSNW-A (-BS) | | | 10.4 | 21.72 | 60.6 | 126.53 | 71.0 | 148.25 |
| PURY-P500YSNW-A (-BS) | | | 10.4 | 21.72 | 60.6 | 126.53 | 71.0 | 148.25 |
| PURY-P550YSNW-A (-BS) | | | 10.4 | 21.72 | 60.6 | 126.53 | 71.0 | 148.25 |
| PURY-P600YSNW-A (-BS) | | | 10.4 | 21.72 | 60.6 | 126.53 | 71.0 | 148.25 |
| PURY-P650YSNW-A (-BS) | | | 13.2 | 27.56 | 65.6 | 136.97 | 78.8 | 164.53 |
| PURY-P700YSNW-A (-BS) | | | 16.0 | 33.41 | 79.6 | 166.20 | 95.6 | 199.61 |
| PURY-P750YSNW-A (-BS) | | | 16.0 | 33.41 | 79.6 | 173.30 | 95.6 | 206.71 |
| PURY-P800YSNW-A (-BS) | | | 16.0 | 33.41 | 83.0 | 173.30 | 99.0 | 206.71 |
| PURY-P850YSNW-A (-BS) | | | 18.8 | 39.25 | 80.2 | 167.46 | 99.0 | 206.71 |
| PURY-P900YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-P950YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-P1000YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-P1050YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-P1100YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |

## PURY-EP•Y(S)NW-A(-BS) / CONTAINS FLUORINATED GREENHOUSES GASES

| Model | Refrigerant | | Factory Charged | | Maximum Additional Charge | | Total Charge | |
|---|---|---|---|---|---|---|---|---|
| | Type | GWP | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* | Weight [kg] | $CO_2$ Equivalent [t]* |
| PURY-EP200YNW-A (-BS) | R410A | 2088 | 5.2 | 10.86 | 28.3 | 59.09 | 33.5 | 69.95 |
| PURY-EP250YNW-A (-BS) | | | 5.2 | 10.86 | 34.3 | 71.62 | 39.5 | 82.48 |
| PURY-EP300YNW-A (-BS) | | | 5.2 | 10.86 | 34.3 | 71.62 | 39.5 | 82.48 |
| PURY-EP350YNW-A (-BS) | | | 8.0 | 16.70 | 39.0 | 81.43 | 47.0 | 98.14 |
| PURY-EP400YNW-A (-BS) | | | 8.0 | 16.70 | 39.0 | 81.43 | 47.0 | 98.14 |
| PURY-EP450YNW-A (-BS) | | | 10.8 | 22.55 | 44.7 | 93.33 | 55.5 | 115.88 |
| PURY-EP500YNW-A (-BS) | | | 10.8 | 22.55 | 45.2 | 94.38 | 56.0 | 115.88 |
| PURY-EP550YNW-A (-BS) | | | 10.8 | 22.55 | 45.2 | 94.38 | 56.0 | 116.93 |
| PURY-EP400YSNW-A (-BS) | | | 10.4 | 21.72 | 53.6 | 111.92 | 64.0 | 116.93 |
| PURY-EP450YSNW-A (-BS) | | | 10.4 | 21.72 | 53.6 | 111.92 | 64.0 | 133.63 |
| PURY-EP500YSNW-A (-BS) | | | 10.4 | 21.72 | 53.6 | 111.92 | 64.0 | 133.63 |
| PURY-EP550YSNW-A (-BS) | | | 10.4 | 21.72 | 53.6 | 111.92 | 64.0 | 133.63 |
| PURYE-P600YSNW-A (-BS) | | | 10.4 | 21.72 | 53.6 | 111.92 | 64.0 | 133.63 |
| PURY-EP650YSNW-A (-BS) | | | 13.2 | 27.56 | 59.8 | 124.86 | 73.0 | 152.42 |
| PURY-EP700YSNW-A (-BS) | | | 16.0 | 33.41 | 78.0 | 162.86 | 94.0 | 196.27 |
| PURY-EP750YSNW-A (-BS) | | | 16.0 | 33.41 | 80.5 | 168.08 | 95.6 | 201.49 |
| PURY-EP800YSNW-A (-BS) | | | 16.0 | 33.41 | 83.0 | 173.30 | 99.0 | 206.71 |
| PURY-EP850YSNW-A (-BS) | | | 18.8 | 39.25 | 80.2 | 167.46 | 99.0 | 206.71 |
| PURY-EP900YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-EP950YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-EP1000YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-EP1050YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |
| PURY-EP1100YSNW-A (-BS) | | | 21.6 | 45.10 | 77.4 | 161.61 | 99.0 | 206.71 |

*This table is based on Regulation (EU) No 517/2014.

# Water Cooled City Multi Benefits

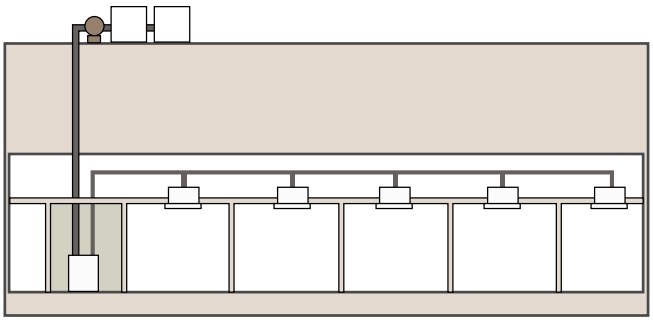
Water Cooled systems can be used in buildings that are taller than 50m by running a main water pipe through each floor. Any heat source system that can supply heat source water between 10˚C - 45˚C can be used.

Simultaneous heating and cooling operation is available (WR2 Series).

It is suggested that Water Cooled systems are used in buildings that have the following heating and cooling needs:

- Buildings that require all year cooling. For example tenant buildings in which kitchens and offices exist together and buildings in which equipment rooms and office exist together.
- Buildings in which there are large room temperature differences between sunny and shaded rooms.
- Hotels with a lot of individual operation needs.

Water Cooled systems are ideally suited for use in temperate and colder climates since heat exchange with the outside air is not required.

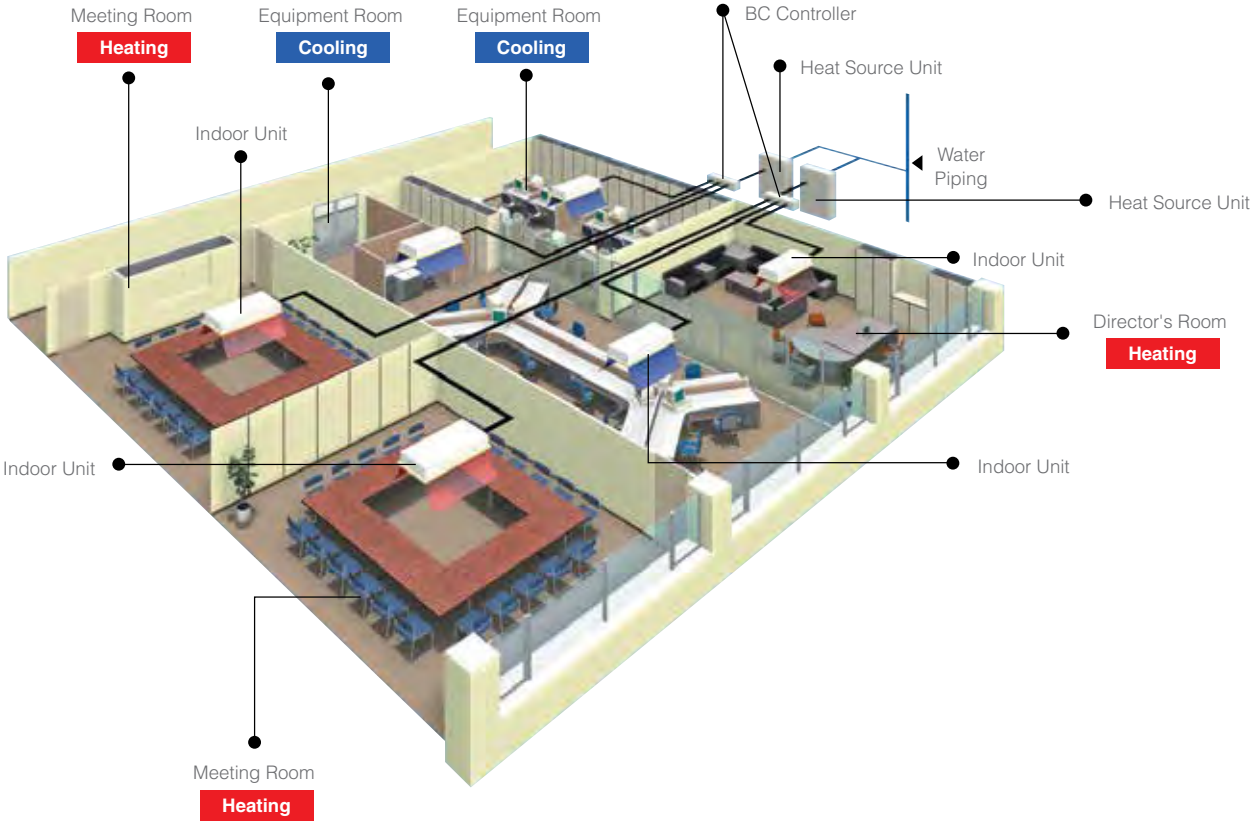


# Energy Saving Technology

## WHAT IS WATER COOLED?

### A unique offering from Mitsubishi Electric

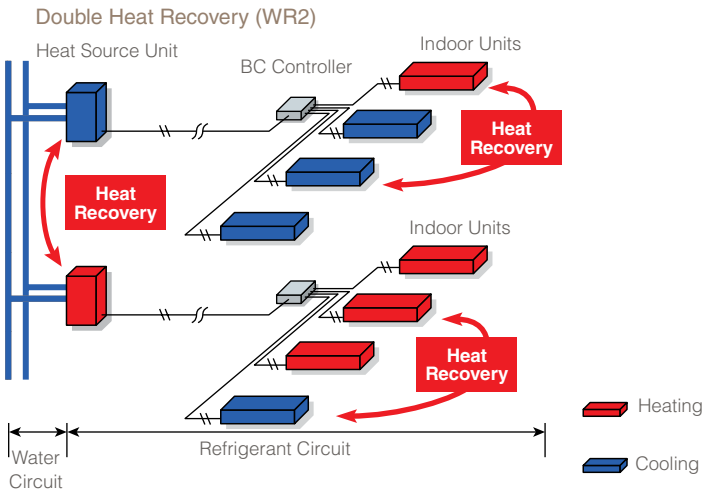
It is now possible to combine the features of VRF with a water circuit using CITY MULTI WR2/WY. In this case, the heat is rejected to a water source rather than to the outside air. The advantages of Water Cooled systems are that the water can be delivered at optimised temperatures and volumes, allowing 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 buildings, where some areas require cooling even in winter.



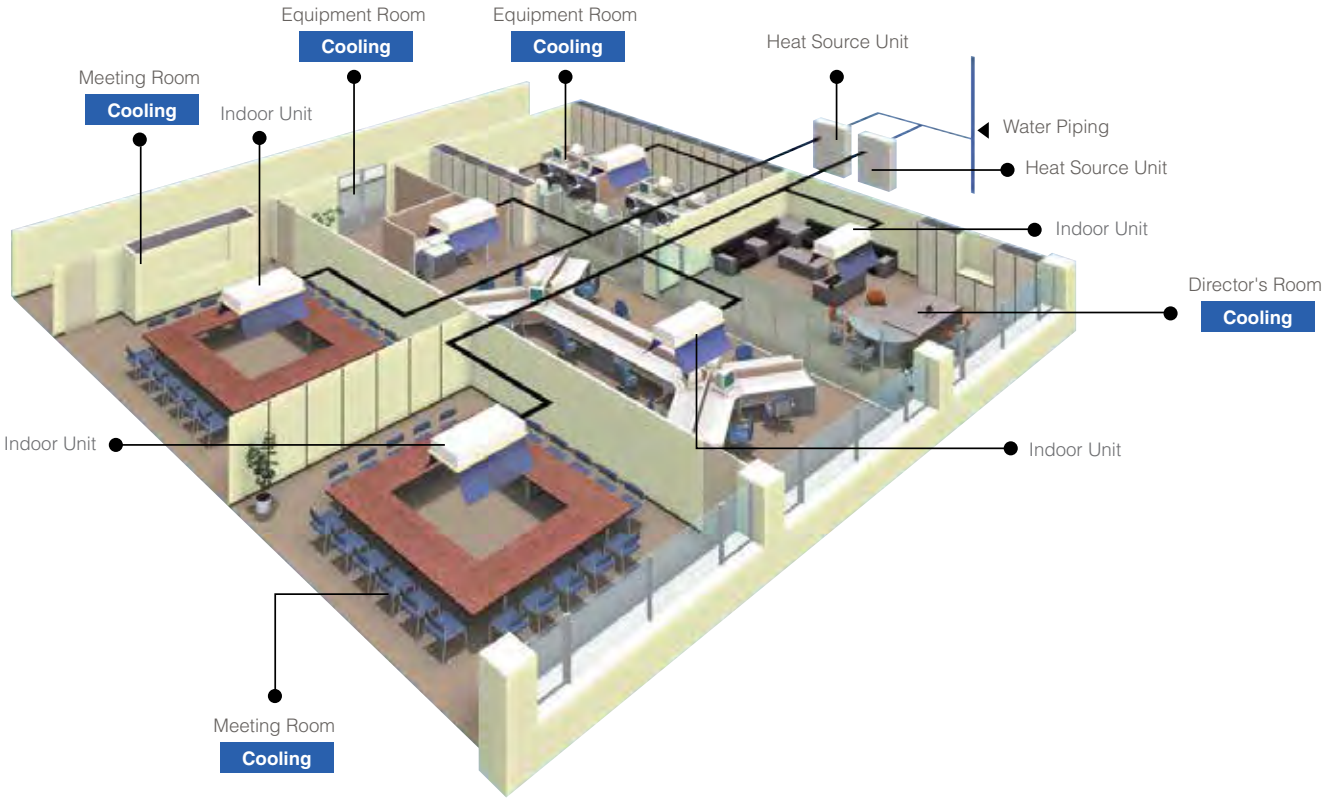
# Water Cooled Series

## COOLING OR HEATING

### Water energy source system allows switching between cooling and heating

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 almost 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 centralised control. The indoor can operate in either cooling or heating mode.

### Installation image WY Series



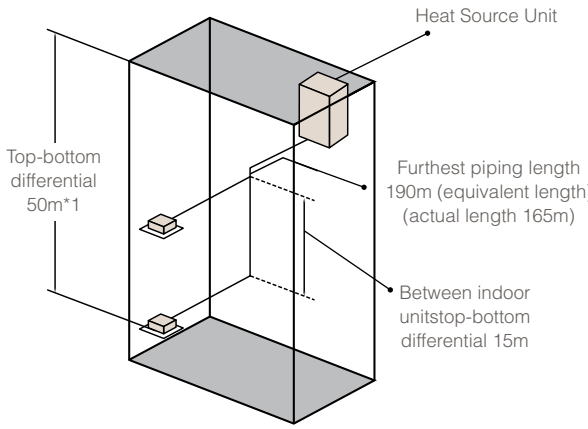

## SYSTEM PIPE LENGTHS

P200-P900 WY Series

| Refrigerant Piping Lengths | Maximum Units |
|---|---|
| Total Length | 300-500 |
| Maximum Allowable Length | 165 (190 equivalent) |
| Farthest Indoor from First Branch | 40*2 |

| Vertical Variations Between Units | Maximum Units |
|---|---|
| Indoor/Heat Source (Heat Source Higher) | 50 |
| Indoor/Heat Source (Heat Source Lower) | 40 |
| Indoor/Indoor | 15 |

All values in metres




*1 When the heat source unit is installed below the indoor unit, top-bottom differential is 40m.

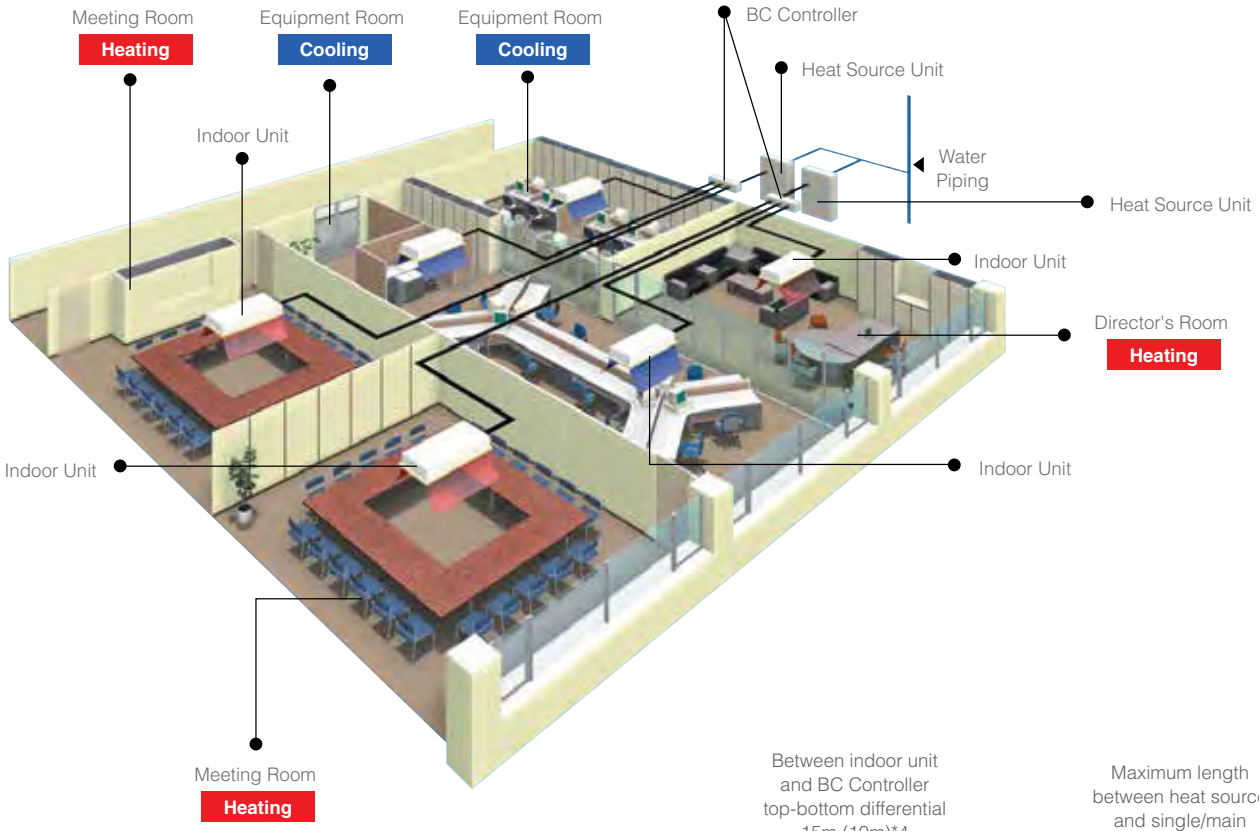
*2 90m is available. When the piping length exceeds 40m, use on size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point.

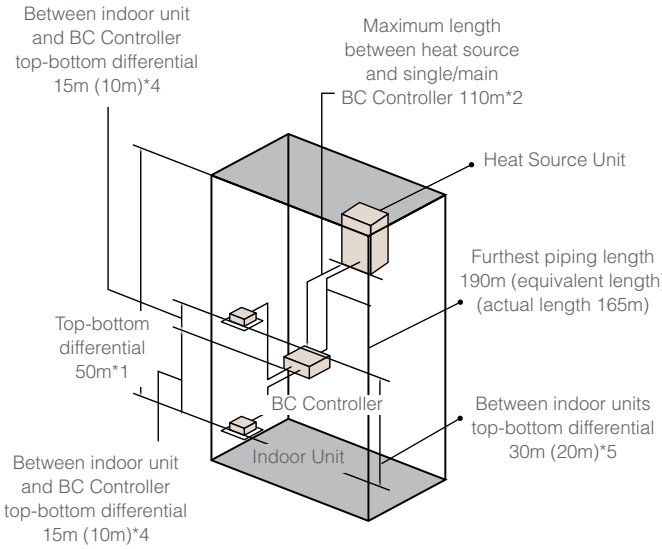
# WR2 HEAT RECOVERY SERIES

## Advanced water heat source unit enjoying the benefits of WR2 Series

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

### Installation image WR2 Series




## SYSTEM PIPE LENGTHS

P200-P900 WR2 Series

| Refrigerant Piping Lengths | Maximum Units |
|---|---|
| Total Length | 550-750 |
| Maximum Allowable Length | 165 (190 equivalent) |
| Maximum Length Between Heat Source and Single/Main BC Controller | 110*2 |
| *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*3 |
| **Vertical Variations Between Units** | **Maximum Units** |
| Indoor/Heat Source (Heat Source Higher) | 50 |
| Indoor/Heat Source (Heat Source Lower) | 40 |
| Indoor/BC Controller (Single/Main) | 15*4 |
| Indoor/Indoor | 30*5 |
| Main BC Controller/Sub BC Controller | 15*6 |

All values in metres

*1 When the heat source unit is installed below the indoor unit, top-bottom differential is 40m.

*2 Details refer to the Data Book.

*3 Farthest Indoor from BC Controller can exceed 40m till 60m if no Indoor sized P200, P250 connected. Details refer to the Data Book.

*4 Distance of Indoor sized P200, P250 from BC must be less than 10m, if any.

*5 Distance of Indoor sized P200, P250 from Indoor unit must be less than 20m if any.

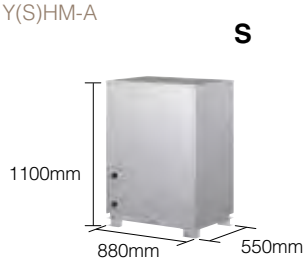
*6 Distance between BC (Main) and BC (Sub) must be less than 10m, if two BC (Sub) are installed or Indoor sized P200 and/or P250 is connected.

# YLM Series

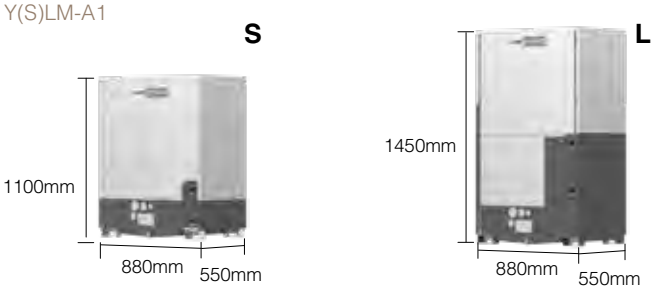
## WIDE CAPACITY RANGE AVAILABLE, SINGLE MODULE CAPABLE OF UP TO P600 AND COMBINATION MODULE UP TO P900

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

Y(S)HM-A




Y(S)LM-A1




WY Series

Single module units available up to P600

| | | P200 | P250 | P300 | P350 | P400 | P450 | P500 | P550 | P600 | P650 | P700 | P750 | P800 | P850 | P900 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PQHY-P YLM-A1 | Single | S | S | S | L | L | L | L | L | L | | | | | | |
| PQHY-P YHM-A | Single | S | S | S | | | | | | | | | | | | |
| PQHY-P YSLM-A1 | Combination | | | | | S+S | S+S | S+S | S+S | S+S | | L+L | L+L | L+L | L+L | L+L |
| PQHY-P YSHM-A | Combination | | | | | S+S | S+S | S+S | S+S | S+S | S+S | S+S | S+S | S+S | S+S | S+S |

WR2 Series

Single module units available up to P600

Single module units available up to P600

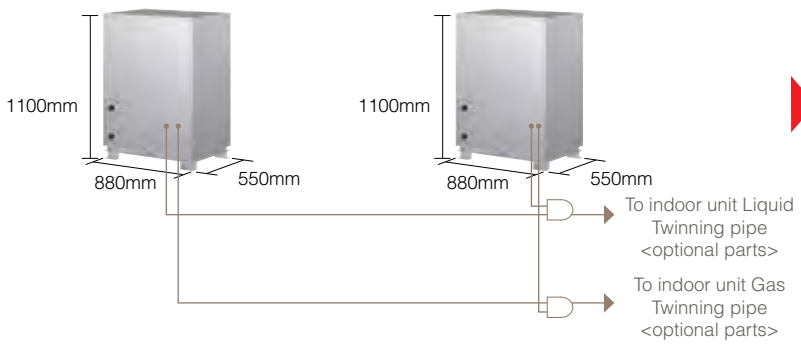
| | | P200 | P250 | P300 | P350 | P400 | P450 | P500 | P550 | P600 | P650 | P700 | P750 | P800 | P850 | P900 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PQRY-P YLM-A1 | Single | S | S | S | L | L | L | L | L | L | | | | | | |
| PQRY-P YHM-A | Single | S | S | S | | | | | | | | | | | | |
| PQRY-P YSLM-A1 | Combination | | | | | S+S | S+S | S+S | S+S | S+S | | L+L | L+L | L+L | L+L | L+L |
| PQRY-P YSHM-A | Combination | | | | | S+S | S+S | S+S | S+S | S+S | | | | | | |

## BENEFIT OF SINGLE MODULE WIDE CAPACITY RANGE

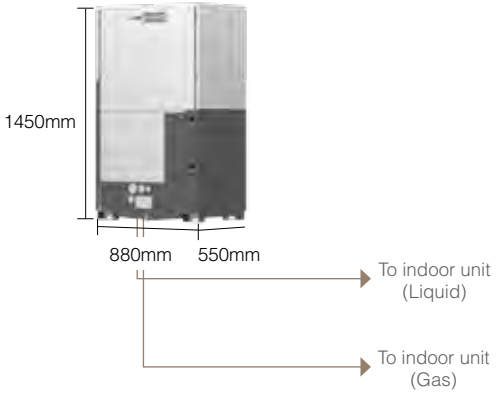
**Less piping work**

» Capable of covering up to P600 (69kW) with a single module.

P400YHSM (WY/WR2 Series)




P400YLM (WY-WR2 Series)

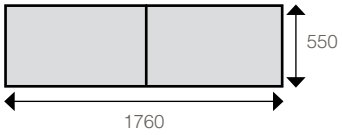


**Less footprint**

» Less footprint by the enhancement of the lineup of single-module units.

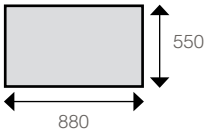
PQHY-P YSHM-A

**P400 - P600**



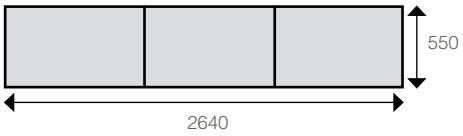

PQHY-P Y(S)LM-A1

**P200 - P600**

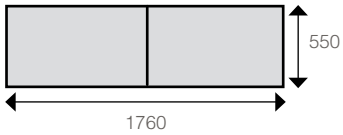



**Approx 50% Reduction**

**EP400-P450**




**P400 - P900** *P650 is excluded.

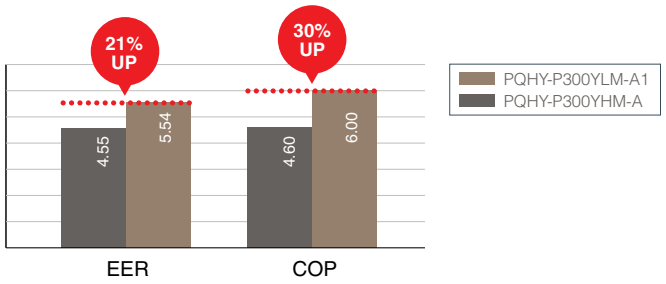


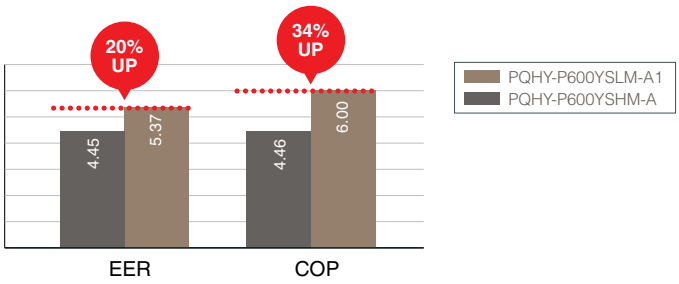

**Approx 33% Reduction**

All values in mm

# HIGH ENERGY EFFICIENCY

**High EER and COP as compared to the conventional models**



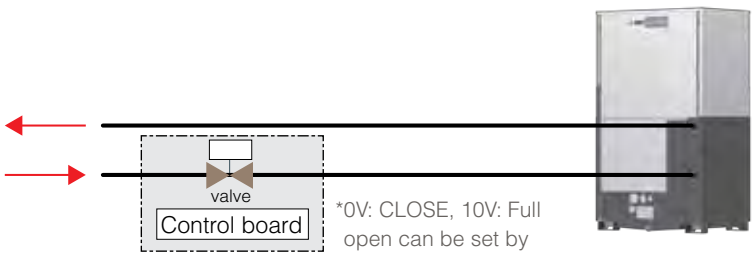

# WATER FLOW RATE CONTROL

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.

» Site control panel for pump interlock is not required.*

*Details refer to the DATA BOOK.




*0V: CLOSE, 10V: Full open can be set by changing the settings of dip switch.

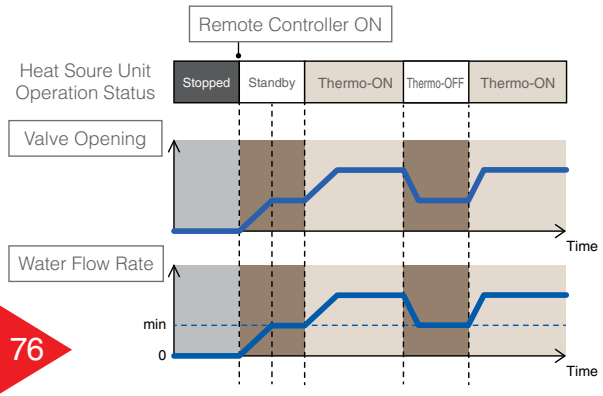
Valve and control board: field supply

# POWER SAVE SETTING (PQHY-P Y(S)LM-A1, PQRY-P Y(S)LM-A1)

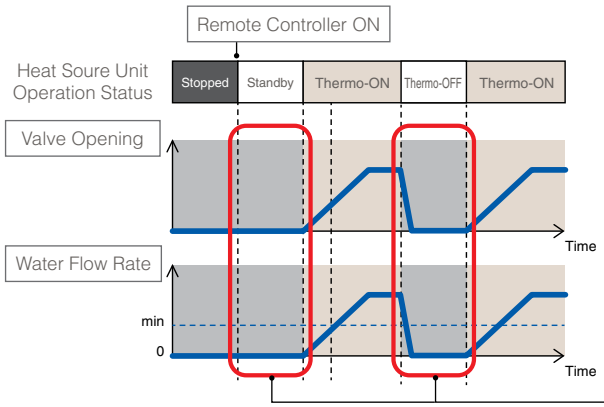
On the previous models (A type), the pump was operated at a constant flow rate during standby and Thermo-OFF.

On the A1 type models, the water control valve is closed during standby and Thermo-OFF to reduce the circulating water flow rate achieving the reduction in power consumption of the pump.

**Standard**




**Power-save settings for the pump**




The valve closes and stops the water flow during standby and Thermo-OFF to reduce the energy consumption of the pump.

# OUTDOOR UNITS

## For PQHY Series

| Description | Model | Applicable capacity |
|---|---|---|
| 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) |
| | | The first branch of P450-P650 |
| | CMY-Y302S-G2 | 651 or 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 |
| Twinning Kit | CMY-Y100VBK3 | For PQHY-P400-P600YSLM-A1 |
| | CMY-Y200VBK2 | For PQHY-P650-P900YSLM-A1 |

| Description | | Model | Applicable capacity |
|---|---|---|---|
| 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-A1 |
| | | CMY-Q200CBK | For PQRY-P700~P900YSLM-A1 |
| 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 | 351-300 (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 Heat Source Unit |
| | | CMY-R102S-G | For P700-P1100 Heat Source Unit |
| | Reducer | CMY-R301S-G | For CMB-P104, 106, 108, 1012, 1016V-J<br>(When the heat source unit capacity is P200 to P300) |
| | | CMY-R302S-G | For CMB-P104,106,108,1012,1016V-JA<br>(When the heat source 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<br>(When the heat source unit capcity is P200 to P1000) |
| | | CMY-R305S-G | For CMB-P1016V-KA and for use with sub BC controller |
| | | CMY-R306S-G | For CMB-P104, 108V-KB |
| | Branch Pipe (Header) | CMY-R160-J1 | Joint for connecting to two nozzles |

# HEAT SOURCE UNIT - WY Series

## PQHY-P YLM-A (HEAT PUMP)

| Model | | | PQHY-P200YLM-A | PQHY-P250YLM-A | PQHY-P300YLM-A |
|---|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 25.0 | 31.5 | 37.5 |
| | | kcal/h | 21,500 | 27,100 | 32,300 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total 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 >=90m) | 9.52 (3/8) Brazed (12.7 (1/2) Brazed, Farthest Length >=40m) |
| | Gas Pipe | mm (in.) | 19.05 (3/4) Brazed | 22.2 (7/8) Brazed | |
| Circulating Water | Water Flow Rate | $m^3/h$ | 5.76 | | |
| | | L/min | 96 | | |
| | | cfm | 3.4 | | |
| | Pressure Drop | kPa | 24 | | |
| | Operating Volume Range | kW | 3.0~7.2 | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 4.8 | 6.2 | 7.7 |
| External Finish | | | Galvanised Steel Sheets | | |
| External Dimensions HxWxD | | mm | 1,100 x 880 x 550 | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | |
| | Compressor | | Over-Heat Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 5.0kg | | |
| Net Weight | | kg | 174 | | |
| Heat Exchanger | | | Plate Type | | |
| | Water Volume in Plate | L | 5.0 | | |
| | Water Pressure Max. | MPa | 2.0 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2<br>Header: CMY-Y104,108,1010-G | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WY Series

## PQHY-P YLM-A (HEAT PUMP)

| Model | | | PQHY-P350YLM-A | PQHY-P400YLM-A | PQHY-P450YLM-A |
|---|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | | 5.38 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 45.0 | 50.0 | 56.0 |
| | | kcal/h | 40,000 | 45,000 | 50,000 |
| | | 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 | | 5.72 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total 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 | | 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 | | |
| Circulating Water | Water Flow Rate | $m^3/h$ | 7.20 | | |
| | | L/min | 120 | | |
| | | cfm | 4.4 | | |
| | Pressure Drop | kPa | 44 | | |
| | Operating Volume Range | kW | 4.5~11.6 | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 9.5 | 10.7 | 11.6 |
| External Finish | | | Galvanised Steel Sheets | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | |
| | Compressor | | Over-Heat Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0kg | | |
| Net Weight | | kg | 217 | | |
| Heat Exchanger | | | Plate Type | | |
| | Water Volume in Plate | L | 5.0 | | |
| | Water Pressure Max. | MPa | 2.0 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2<br>Header: CMY-Y104,108,1010-G | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WY Series

## PQHY-P YLM-A (HEAT PUMP)

| Model | | | PQHY-P500YLM-A | PQHY-P550YLM-A | PQHY-P600YLM-A |
|---|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 63.0 | 69.0 | 76.5 |
| | | kcal/h | 55,000 | 60,000 | 65,800 |
| | | 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 | 20.7-19.5-18.9 | 24.4-23.2-22.3 |
| | COP | kW/kW | 5.51 | 5.62 | 5.27 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total 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 | |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | |
| Circulating Water | Water Flow Rate | m³/h | 7.20 | 11.52 | |
| | | L/min | 120 | 192 | |
| | | cfm | 4.2 | 6.8 | |
| | Pressure Drop | kPa | 44 | 45 | |
| | Operating Volume Range | kW | 4.5~11.6 | 6.0~14.4 | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 13.0 | 15.0 | 16.1 |
| External Finish | | | Galvanised Steel Sheets | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | |
| | Compressor | | Over-Heat Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0kg | R410A x 7.11kg | |
| Net Weight | | kg | 217 | 246 | |
| Heat Exchanger | | | Plate Type | | |
| | Water Volume in Plate | L | 5.0 | 10.0 | |
| | Water Pressure Max. | MPa | 2.0 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2<br>Header: CMY-Y104,108,1010-G | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WY Series

## PQHY-P YSLM-A (HEAT PUMP)

| Model | | | PQHY-P400YSLM-A | PQHY-P450YSLM-A | PQHY-P500YSLM-A |
|---|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 45.0 | 50.0 | 56.0 |
| | | kcal/h | 40,000 | 45,000 | 50,000 |
| | | BTU/h | 153,500 | 170,600 | 191,100 |
| | Power Input | kW | 7.70 | 8.78 | 10.12 |
| | Current Input | A | 12.9-12.3-11.9 | 14.8-14.0-13.5 | 17.0-16.2-15.6 |
| | EER | kW/kW | 5.84 | 5.69 | 5.53 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 50.0 | 56.0 | 63.0 |
| | | kcal/h | 45.000 | 50.000 | 55.000 |
| | | BTU/h | 170.600 | 191.100 | 215.000 |
| | Power Input | kW | 7.94 | 8.97 | 10.16 |
| | Current Input | A | 13.4-12.7-12.2 | 15.1-14.3-13.8 | 17.1-16.2-15.7 |
| | COP | kW/kW | 6.29 | 6.24 | 6.20 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Heat Source Unit Capacity | | |
| | Model/Quantity | | P15~P250/1~34 | P15~P250/1~39 | P15~P250/1~43 |
| Sound Pressure Level (Measured in Anechoic Room) | | dB <A> | 49 | 50 | 51 |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | |

| Set Model | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | | PQHY-P200YLM-A | PQHY-P250YLM-A | PQHY-250-YLM-A | PQHY-200YLM-A | PQHY-P250YLM-A | PQHY-P250YLM-A |
| Circulating Water | Water Flow Rate | $m^3/h$ | 5.76 + 5.76 | | | | | |
| | | L/min | 96 + 96 | | | | | |
| | | cfm | 3.4 + 3.4 | | | | | |
| | Pressure Drop | kPa | 24 | | | | | |
| | Operating Volume Range | kW | 3.0 +3.0 - 7.2 + 7.2 | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 4.8 | | 6.2 | 4.8 | 6.2 | |
| External Finish | | | Galvanised Steel Sheets | | | | | |
| External Dimensions HxWxD | | mm | 1,100 x 880 x 550 | | | | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | | | |
| | Compressor | | Over-Heat Protection | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.0kg | | | | | |
| Net Weight | | kg | 174 | | | | | |
| Heat Exchanger | | | Plate Type | | | | | |
| | Water Volume in Plate | L | 5.0 | | | | | |
| | Water Pressure Max. | MPa | 2.0 | | | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Y100BVK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2<br>Header: CMY-Y104,108,1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WY Series

## PQHY-P YSLM-A (HEAT PUMP)

| Model | | | PQHY-P550YSLM-A | PQHY-P600YSLM-A | PQHY-P700YSLM-A |
|---|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 63.0 | 69.0 | 80.0 |
| | | kcal/h | 55,000 | 60,000 | 68,800 |
| | | BTU/h | 215,000 | 235,400 | 273,000 |
| | Power Input | kW | 11.55 | 12.84 | 14.73 |
| | Current Input | A | 19.4,-18.5-17.8 | 21.6-20.5-19.8 | 24.8-23.6-22.7 |
| | EER | kW/kW | 5.45 | 5.37 | 5.43 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 69.0 | 76.5 | 88.0 |
| | | kcal/h | 60,000 | 65,800 | 75,700 |
| | | BTU/h | 235,400 | 261,000 | 300,300 |
| | Power Input | kW | 11.31 | 12.75 | 14.73 |
| | Current Input | A | 19.0-18.1-17.4 | 21.5-20.4-19.7 | 24.8-23.6-22.7 |
| | COP | kW/kW | 6.10 | 6.00 | 5.97 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~130% of Heat Source Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~47 | P15~P250/2~50 | P15~P250/2~50 |
| Sound Pressure Level (Measured in Anechoic Room) | | dB <A> | 55 | 57 | 55 |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | |

| Set Model | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | | PQHY-P300YLM-A | PHY-P250YLM-A | PQHY-P300-YLM-A | PQHY-300YLM-A | PQHY-P350YLM-A | PQHY-P350YLM-A |
| Circulating Water | Water Flow Rate | m³/h | 5.76 + 5.76 | | | | 7.20 + 7.20 | |
| | | L/min | 96 + 96 | | | | 120 + 120 | |
| | | cfm | 3.4 + 3.4 | | | | 4.2 + 4.2 | |
| | Pressure Drop | kPa | 24 | | | | 44 | |
| | Operating Volume Range | kW | 3.0 + 3.0 - 7.2 + 7.2 | | | | 4.5 + 4.5 ~ 11.6 + 11.16 | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.7 | 6.2 | 7.7 | | 9.5 | |
| External Finish | | | Galvanised Steel Sheets | | | | | |
| External Dimensions HxWxD | | mm | 1,100 x 880 x 550 | | | | 1,450 x 880 x 550 | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | | | |
| | Compressor | | Over-Heat Protection | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.0kg | | | | R410A x 6.0kg | |
| Net Weight | | kg | 174 | | | | 217 | |
| Heat Exchanger | | | Plate Type | | | | | |
| | Water Volume in Plate | L | 5.0 | | | | | |
| | Water Pressure Max. | MPa | 2.0 | | | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Y100BVK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2<br>Header: CMY-Y104,108,1010-G | | | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WY Series

## PQHY-P YSLM-A (HEAT PUMP)

| Model | | | PQHY-P750YSLM-A | PQHY-P800YSLM-A |
|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | |
| Cooling Capacity (Nominal)*1 | | kW | 85.0 | 90.0 |
| | | kcal/h | 73,100 | 77,440 |
| | | 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 | |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Calculating Water | C° | 10.0~45.0°C | |
| Heating Capacity (Nominal)*2 | | kW | 95.0 | 100.0 |
| | | kcal/h | 81,700 | 86,000 |
| | | 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 | |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Calculating Water | C° | 10.0~45.0°C | |
| 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-P400YLM-A | PQHY-P350YLM-A | PQHY-P400-YLM-A | PQHY-400YLM-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 | | | |
| | Operating Volume Range | kW | 4.5 + 4.5 ~ 11.6 + 11.6 | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 10.7 | 9.5 | 10.7 | |
| External Finish | | | Galvanised Steel Sheets | | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | |
| | Compressor | | Over-Heat Protection | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0kg | | | |
| Net Weight | | kg | 217 | | | |
| Heat Exchanger | | | Plate Type | | | |
| | Water Volume in Plate | L | 5.0 | | | |
| | Water Pressure Max. | MPa | 2.0 | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Y200VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2<br>Header: CMY-Y104,108,1010-G | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WY Series

## PQHY-P YSLM-A (HEAT PUMP)

| Model | | | PQHY-P850YSLM-A | PQHY-P900YSLM-A |
|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | |
| | Calculating Water | C° | 10.0~45.0°C | |
| Heating Capacity (Nominal)*2 | | kW | 108.0 | 113.0 |
| | | kcal/h | 92,900 | 97,200 |
| | | 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 | |
| | Calculating Water | C° | 10.0~45.0°C | |
| 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> | 56 | 57 |
| 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 | | | PQHY-P450YLM-A | PQHY-P400YLM-A | PQHY-P450-YLM-A | PQHY-450YLM-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 | | | |
| | Operating Volume Range | kW | 4.5 + 4.5 ~ 11.6 + 11.6 | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 11.6 | 10.7 | 11.6 | |
| External Finish | | | Galvanised Steel Sheets | | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | |
| | Compressor | | Over-Heat Protection | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0kg | | | |
| Net Weight | | kg | 217 | | | |
| Heat Exchanger | | | Plate Type | | | |
| | Water Volume in Plate | L | 5.0 | | | |
| | Water Pressure Max. | MPa | 2.0 | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Y200VBK3<br>Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2<br>Header: CMY-Y104,108,1010-G | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WR2 Series

## PQRY-P YLM-A (HEAT RECOVERY)

| Model | | | PQRY-P200YLM-A | PQRY-P250YLM-A | PQRY-P300YLM-A |
|---|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 25.0 | 31.5 | 37.5 |
| | | kcal/h | 21,500 | 27,100 | 32,300 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total 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 | Liquid Pipe | mm (in.) | 15.88 (5/8) Brazed | 19.05 (3/4) Brazed | |
| | Gas Pipe | mm (in.) | 19.05 (3/4) Brazed | 22.2 (7/8) Brazed | |
| Circulating Water | Water Flow Rate | $m^3/h$ | 5.76 | | |
| | | L/min | 96 | | |
| | | cfm | 3.4 | | |
| | Pressure Drop | kPa | 24 | | |
| | Operating Volume Range | kW | 3.0~7.2 | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 4.8 | 6.2 | 7.7 |
| External Finish | | | Galvanised Steel Sheets | | |
| External Dimensions HxWxD | | mm | 1,100 x 880 x 550 | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | |
| | Compressor | | Over-Heat Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 5.0kg | | |
| Net Weight | | kg | 172 | | |
| Heat Exchanger | | | Plate Type | | |
| | Water Volume in Plate | L | 5.0 | | |
| | Water Pressure Max. | MPa | 2.0 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>BC Controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016-G1<br>Main BC Controller: CMB-P108, 1010, 1013, 1016V-GA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WR2 Series

## PQRY-P YLM-A (HEAT RECOVERY)

| Model | | | PQRY-P350YLM-A | PQRY-P400YLM-A | PQRY-P450YLM-A |
|---|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | | 5.38 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 45.0 | 50.0 | 56.0 |
| | | kcal/h | 40,000 | 45,000 | 50,000 |
| | | 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 | | 5.72 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity 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 | | 54 |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 22.2 (7/8) Brazed | | |
| | Gas Pipe | mm (in.) | 28.58 (1-1/8) Brazed | | |
| Circulating Water | Water Flow Rate | m³/h | 7.20 | | |
| | | L/min | 120 | | |
| | | cfm | 4.2 | | |
| | Pressure Drop | kPa | 44 | | |
| | Operating Volume Range | kW | 4.5 ~ 11.6 | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 9.5 | 10.7 | 11.6 |
| External Finish | | | Galvanised Steel Sheets | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | |
| | Compressor | | Over-Heat Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0kg | | |
| Net Weight | | kg | 216 | | |
| Heat Exchanger | | | Plate Type | | |
| | Water Volume in Plate | L | 5.0 | | |
| | Water Pressure Max. | MPa | 2.0 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>BC Controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1<br>Main BC Controller: CMB-P108, 1010, 1013, 1016V-GA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>BC Controller: CMB-P108, 1010, 1013, 1016V-G1<br>Main BC Controller: CMB-P108, 1010, 1013, 1016V-GA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WR2 Series

## PQRY-P YLM-A (HEAT RECOVERY)

| Model | | | PQRY-P500YLM-A | PQRY-P550YLM-A | PQRY-P600YLM-A |
|---|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 63.0 | 69.0 | 76.5 |
| | | kcal/h | 55,000 | 60,000 | 65,800 |
| | | 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 | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity of Heat Source Unit Capacity | | |
| | Model/Quantity | | P15~P250/1~50 | P15~P250/2~50 | |
| Sound Pressure Level (Measured in Anechoic Room) | | dB <A> | 54 | 56.5 | |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 22.2 (7/8) Brazed | 22.2 (7/8) Brazed (28.58 (1-1/8) Brazed for the part that exceeds 65 m) | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | |
| Circulating Water | Water Flow Rate | $m^3/h$ | 7.20 | 11.52 | |
| | | L/min | 120 | 192 | |
| | | cfm | 4.2 | 6.8 | |
| | Pressure Drop | kPa | 44 | 45 | |
| | Operating Volume Range | kW | 4.5 ~ 11.6 | 6.0 ~ 14.4 | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 13.0 | 15.0 | 16.1 |
| External Finish | | | Galvanised Steel Sheets | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | |
| | Compressor | | Over-Heat Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0kg | R410A x 11.7kg | |
| Net Weight | | kg | 216 | 246 | |
| Heat Exchanger | | | Plate Type | | |
| | Water Volume in Plate | L | 5.0 | 10.0 | |
| | Water Pressure Max. | MPa | 2.0 | | |
| Optional Parts | | | Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1010, 1013, 1016V-GA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WR2 Series

## PQRY-P YSLM-A (HEAT RECOVERY)

| Model | | | PQRY-P400YSLM-A | PQRY-P450YSLM-A | PQRY-P500YSLM-A |
|---|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 45.0 | 50.0 | 56.0 |
| | | kcal/h | 40,000 | 45,000 | 50,000 |
| | | BTU/h | 153,500 | 170,600 | 191,100 |
| | Power Input | kW | 7.70 | 8.78 | 10.12 |
| | Current Input | A | 12.9-12.3-11.9 | 14.8-14.0-13.5 | 17.0-16.2-15.6 |
| | EER | kW/kW | 5.84 | 5.69 | 5.53 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 50.0 | 56.0 | 63.0 |
| | | kcal/h | 45,000 | 50,000 | 55,000 |
| | | BTU/h | 170,600 | 191,100 | 215,000 |
| | Power Input | kW | 7.94 | 8.97 | 10.16 |
| | Current Input | A | 13.4-12.7-12.2 | 15.1-14.3-13.8 | 17.1-16.2-15.7 |
| | COP | kW/kW | 6.29 | 6.24 | 6.20 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity of Heat Source Unit Capacity | | |
| | Model/Quantity | | P15~P250/1~40 | P15~P250/1~45 | P15~P250/1~50 |
| Sound Pressure Level (Measured in Anechoic Room) | | dB <A> | 49 | 50 | 51 |
| Refrigerant Piping Diameter | High Pressure | mm (in.) | 22.2 (7/8) Brazed | | |
| | Low Pressure | mm (in.) | 28.58 (1-1/8) Brazed | | |

| Set Model | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | | PQHY-P200YLM-A | PQHY-P200YLM-A | PQHY-P250YLM-A | PQHY-P200YLM-A | PQHY-P250YLM-A | PQHY-P250YLM-A |
| Circulating Water | Water Flow Rate | $m^3/h$ | 5.76 + 5.76 | | | | | |
| | | L/min | 96 + 96 | | | | | |
| | | cfm | 3.4 + 3.4 | | | | | |
| | Pressure Drop | kPa | 24 | | | | | |
| | Operating Volume Range | kW | 3.0 + 3.0 ~ 7.2 + 7.2 | | | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 4.8 | | 6.2 | 4.8 | 6.2 | |
| External Finish | | | Galvanised Steel Sheets | | | | | |
| External Dimensions HxWxD | | mm | 1,100 x 880 x 550 | | | | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15MPa (601 psi) | | | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | | | |
| | Compressor | | Over-Heat Protection | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.0 kg | | | | | |
| Net Weight | | kg | 172 | | | | | |
| Heat Exchanger | | | Plate Type | | | | | |
| | Water Volume in Plate | L | 5.0 | | | | | |
| | Water Pressure Max. | MPa | 2.0 | | | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Q100CBK2<br>Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1010, 1013, 1016V-GA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | | | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - R2 Series

## PQRY-P YSLM-A (HEAT RECOVERY)

| Model | | | PQRY-P550YSLM-A | PQRY-P600YSLM-A | PQRY-P700YSLM-A |
|---|---|---|---|---|---|
| Power Source | | | 3-Phase 4-Wire 380-400-415 V 50/60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 63.0 | 69.0 | 80.0 |
| | | kcal/h | 55,000 | 60,000 | 68,800 |
| | | BTU/h | 215,000 | 235,400 | 273,000 |
| | Power Input | kW | 11.55 | 12.84 | 14.73 |
| | Current Input | A | 19.4-18.5-17.8 | 21.6-20.5-19.8 | 24.8-23.6-22.7 |
| | EER | kW/kW | 5.45 | 5.37 | 5.43 |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Heating Capacity (Nominal)*2 | | kW | 69.0 | 76.5 | 88.0 |
| | | kcal/h | 60,000 | 65,800 | 75,700 |
| | | BTU/h | 235,400 | 261,000 | 300,300 |
| | Power Input | kW | 11.31 | 12.75 | 14.73 |
| | Current Input | A | 19.0-18.1-17.4 | 21.5-20.4-19.7 | 24.8-23.6-22.7 |
| | COP | kW/kW | 6.10 | 6.00 | 5.97 |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | | |
| | Calculating Water | C° | 10.0~45.0°C | | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity of Heat Source Unit Capacity | | |
| | Model/Quantity | | P15~P250/2~50 | | |
| Sound Pressure Level (Measured in Anechoic Room) | | dB <A> | 55 | 57 | 55 |
| Refrigerant Piping Diameter | High Pressure | mm | 22.2 (7/8) Brazed (28.58 (1-1/8) Brazed for the part that exceeds 65 m) | | 28.58 (1-1/8) Brazed |
| | Low Pressure | mm | 28.58 (1-1/8) Brazed | 34.93 (1-3/8) Brazed | 34.93 (1-3/8) Brazed |

**Set Model**

| Model | | | PQRY-P300YLM-A | PQRY-P250YLM-A | PQRY-P300YLM-A | PQRY-P300YLM-A | PQRY-P350YLM-A | PQRY-P350YLM-A |
|---|---|---|---|---|---|---|---|---|
| Circulating Water | Water Flow Rate | $m^3/h$ | 5.76 + 5.76 | | | | | |
| | | L/min | 96 + 96 | | | | 120 + 120 | |
| | | cfm | 3.4 + 3.4 | | | | 4.2 + 4.2 | |
| | Pressure Drop | kPa | 24 | | | | 44 | |
| | Operating Volume Range | kW | 3.0 + 3.0 ~ 7.2 + 7.2 | | | | 4.5 + 4.5 ~ 11.6 + 11.6 | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 7.7 | 6.2 | 7.7 | | 9.5 | |
| External Finish | | | Galvanised Steel Sheets | | | | | |
| External Dimensions HxWxD | | mm | 1,100 x 880 x 550 | | | | 1,450 x 880 x 550 | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15 MPa (601 psi) | | | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | | | |
| | Compressor | | Over-Heat Protection | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 5.0 kg | | | | R410A x 6.0 kg | |
| Net Weight | | kg | 172 | | | | 216 | |
| Heat Exchanger | | | Plate Type | | | | | |
| | Water Volume in Plate | L | 5.0 | | | | | |
| | Water Pressure Max. | MPa | 2.0 | | | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Q100CBK2<br>Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P108, 1010, 1013, 1016V-GA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | | | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WR2 Series

## PQRY-P YSLM-A (HEAT RECOVERY)

| Model | | | PQHY-P750YSLM-A | PQHY-P800YSLM |
|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | |
| Temp. Range of Cooling | Indoor | W.B. | 15.0~24.0°C | |
| | Calculating Water | C° | 10.0~45.0°C | |
| Heating Capacity (Nominal)*2 | | kW | 95.0 | 100.0 |
| | | kcal/h | 81,700 | 86,000 |
| | | 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 | |
| Temp. Range of Heating | Indoor | D.B. | 15.0~27.0°C | |
| | Calculating Water | C° | 10.0~45.0°C | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity 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 | 28.58 (1-1/8) Brazed | |
| | Low Pressure | mm | 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 | | | |
| | | L/min | 120 + 120 | | | |
| | | cfm | 4.2 + 4.2 | | | |
| | Pressure Drop | kPa | 44 | | | |
| | Operating Volume Range | kW | 4.5 + 4.5 ~ 11.6 + 11.6 | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 10.7 | 9.5 | 10.7 | |
| External Finish | | | Galvanised Steel Sheets | | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15 MPa (601 psi) | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | |
| | Compressor | | Over-Heat Protection | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0 kg | | | |
| Net Weight | | kg | 216 | | | |
| Heat Exchanger | | | Plate Type | | | |
| | Water Volume in Plate | L | 5.0 | | | |
| | Water Pressure Max. | MPa | 2.0 | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Q200CBK<br>Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P1016V-HA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# HEAT SOURCE UNIT - WR2 Series

## PQRY-P YSLM-A (HEAT RECOVERY)

| Model | | | PQRY-P850YSLM-A | PQRY-P900YSLM-A |
|---|---|---|---|---|
| Power Source | | | 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 |
| | | 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 | |
| | Calculating Water | C° | 10.0~45.0°C | |
| Heating Capacity (Nominal)*2 | | kW | 108.0 | 113.0 |
| | | kcal/h | 92,900 | 97,200 |
| | | 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 | |
| | Calculating Water | C° | 10.0~45.0°C | |
| Indoor Unit Connectable | Total Capacity | | 50~150% of Outdoor Unit Capacity of Heat Source Unit Capacity | |
| | Model/Quantity | | 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 | |
| | Low Pressure | mm (in.) | 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 | | | |
| | | L/min | 120 + 120 | | | |
| | | cfm | 4.2 + 4.2 | | | |
| | Pressure Drop | kPa | 44 | | | |
| | Operating Volume Range | kW | 4.5 + 4.5 ~ 11.6 + 11.6 | | | |
| Compressor | Type | | Inverter Scroll Hermetic Compressor | | | |
| | Starting Method | | Inverter | | | |
| | Motor Output | kW | 11.6 | 10.7 | 11.6 | |
| External Finish | | | Galvanised Steel Sheets | | | |
| External Dimensions HxWxD | | mm | 1,450 x 880 x 550 | | | |
| Protection Devices | High Pressure Protection | | High Pressure Sensor, High Pressure Switch at 4.15 MPa (601 psi) | | | |
| | Inverter Circuit (COMP.) | | Over-Heat Protection, Over-Current Protection | | | |
| | Compressor | | Over-Heat Protection | | | |
| Refrigerant | Type x Original Charge | | R410A x 6.0 kg | | | |
| Net Weight | | kg | 216 | | | |
| Heat Exchanger | | | Plate Type | | | |
| | Water Volume in Plate | L | 5.0 | | | |
| | Water Pressure Max. | MPa | 2.0 | | | |
| Optional Parts | | | Heat Source Twinning Kit: CMY-Q200CBK<br>Joint: CMY-Y102SS/LS-G2, CMY-R160-J1<br>Main BC Controller: CMB-P1016V-HA1<br>Sub-BC Controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1 | | | |

**Notes:**

*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference |
|---|---|---|---|---|
| Cooling | 27°C DB/19°C WB | 35°C DB/24°C WB | 7.5m | 0m |
| Heating | 20°C DB | 7°C DB/6°C WB | | |

*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 outdoors.
*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 B8615-1.
*Due to continuing improvement, above specification may be subject to change without notice.

# Advanced Energy-saving Technologies

## S (HEAT PUMP) SERIES

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

# PUMY-SP

The PUMY-SP series allows the connection of multiple indoor units to a single outdoor unit. Choose from City Multi indoor units using the standard branch pipework, M-S-P series indoor units via a multi split system branch box, or a combination of both for selection convenience.

## PUMY-SP SERIES LINEUP

Unit Dimension: (w) 1050 x (d) 330 (+25) x (h) 981 mm

**PUMY-SP80V/YKMD** NEW

Cooling Capacity: 9.0kW
Cooling Efficiency-EER: 4.27/AEER: 3.35
Heating Capacity: 10.0kW
Heating Efficiency-COP: 4.41/ACOP: 3.62

**PUMY-SP112V/YKMD**

Cooling Capacity: 12.5kW
Cooling Efficiency-EER: 4.03/AEER: 3.31
Heating Capacity: 14.0kW
Heating Efficiency-COP: 4.42/ACOP: 3.72

**PUMY-SP125V/YKMD**

Cooling Capacity: 14.0kW
Cooling Efficiency-EER: 3.65/AEER: 3.29
Heating Capacity: 16.0kW
Heating Efficiency-COP: 4.10/ACOP: 3.56

**PUMY-SP140V/YKMD**

Cooling Capacity: 15.5kW
Cooling Efficiency-EER: 3.54/AEER: 3.40
Heating Capacity: 16.5kW
Heating Efficiency-COP: 4.10/ACOP: 3.55

### FEATURES

- Heating & Cooling
- Inverter Technology
- Increased Fan Opening
- Inflexed Fan
- Light Weight
- Compact 980mm Height
- Design Flexibility
- Flexible Connection
- Energy Efficient
- Demand Response Capable
- Quiet Mode*
- Guaranteed Operating Range
  Cooling at -5°C ~ 52°C
  Heating at -20°C ~ 15°C

Wi-Fi CONTROL
Wi-Fi Connectable
Optional upgrade adapter required per indoor unit.

# PUMY-P

PUMY-P series condensing units allow the selection of a suitable model indoor unit for the living environment, while maintaining extended pipe runs to allow convenient location for the condensing unit.

## PUMY-P SERIES LINEUP

Unit Dimension: (w) 1050 x (d) 330 (+25) x (h) 1338 mm

**PUMY-P112V/YKMD**

Cooling Capacity: 12.5kW
Cooling Efficiency-EER: 4.48/AEER: 4.13(V) 4.07(Y)

Heating Capacity: 14.0kW
Heating Efficiency-COP: 4.47/ACOP: 4.20(V) 4.14(Y)

**PUMY-P125V/YKMD**

Cooling Capacity: 14.0kW
Cooling Efficiency-EER: 4.05/AEER: 3.76(V) 3.71(Y)

Heating Capacity: 16.0kW
Heating Efficiency-COP: 4.28/ACOP: 4.03 (V) 3.99 (Y)

**PUMY-P140V/YKMD**

Cooling Capacity: 15.5kW
Cooling Efficiency-EER: 3.43/AEER: 3.22(V) 3.19(Y)

Heating Capacity: 18.0kW
Heating Efficiency-COP: 4.03/ACOP: 3.81(V) 3.78(Y)

**PUMY-P200YKMD** NEW

Cooling Capacity: 22.4kW
Cooling Efficiency-EER: 3.60/AEER: 3.17

Heating Capacity: 25.0kW
Heating Efficiency-COP: 4.17ACOP: 3.78

### FEATURES

- » Heating & Cooling
- » Inverter Technology
- » Increased Fan Opening
- » Inflexed Fan
- » Design Flexibility
- » Flexible Connection
- » Energy Efficient
- » Demand Response Capable
- » Quiet Mode*
- » Guaranteed Operating Range
  Cooling at -5°C ~ 52°C
  Heating at -20°C ~ 15°C

Wi-Fi CONTROL
Wi-Fi Connectable
Optional upgrade adapter required per indoor unit.

# COMPATIBLE INDOOR UNIT RANGE*

| TYPE | | MODEL NAME | MODEL |
|---|---|---|---|
| Ceiling Cassette | 4-way Airflow | PLFY-P-VEM-E |  |
| | | PLFY-P-VFM-E |  |
| | 2-way Airflow | PLFY-P-VLMD-E |  |
| | 1-way Airflow | PMFY-P-VBM-E |  |
| Ceiling Concealed | | PEFY-P-VMR-L |  |
| | | PEFY-P-VMS1(L)-E |  |
| | | PEFY-P-VMHS-E |  |
| | | PEFY-P-VMA-E |  |
| | | PEFY-P-VMX |  |
| | Fresh Air Intake | PEFY-P-VMH-E-F |  |
| Ceiling Suspended | | PCFY-P-VKM-E |  |
| Wall Mounted | | PKFY-P-VLM-E |  |
| | | PKFY-P-VKM-E |  |
| Floor Standing / Floor Mounted Concealed | | PFFY-P-VKM-E2 |  |
| | | PFFY-P-VLEM-E |  |
| | | PFFY-P-VLRM-E<br>PFFY-P-VLRMM-E |  |

*Connectible indoor unit varies depending on capacity.

| TYPE | SERIES | MODEL NAME | MODEL |
|---|---|---|---|
| Wall Mounted | LN Series | MSZ-LN |  |
| | EF Series | MSZ-EF |  |
| | G Series | MSZ-GE |  |
| | AP Series | MSZ-AP |  |
| Floor Standing | | MFZ-KJ |  |
| 4-way Cassette | | PLA-M |  |
| | | SLZ-KF |  |
| 1-way Cassette | | MLZ-KP |  |
| Ceiling Concealed | | SEZ-KD |  |
| | | PEAD-M |  |
| Ceiling Suspended | | PCA-M |  |

# MIXED SYSTEM

| QTY | Model | 80 | | | 112 | | 125 | | 140 | | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Branch Box 1 Unit | City Multi | 5 | 4 | 2 | 5 | 4 | 5 | | 5 | | 5 |
| | Branch Box | 2 | 3 | 4 | 4 | 5 | 5 | | 5 | | 5 |
| Branch Box 2 Units | City Multi | 3 | 2 | - | 3 | 2 | 3 | 2 | 3 | 2 | 3 |
| | Branch Box | 3 | 4 | - | 5 | 6 | 6 | 7 | 7 | 8 | 8 |

# Branch Box Features

PAC-MK33BC

PAC-MK53BC

### Flexible Installation Indoor

The branch box can be installed in the ceiling, thus improving appearance. Maintenance is also easier through access to the circuit board and other inner parts by simply removing the controller cover, compared to the previous model.

### Flexible Installation Outdoor*1

The branch box can be installed outdoors by using the optional cover*2 for outdoor installation. Eliminating the need for a special maintenance hole in the ceiling.

*1 Not suitable in corrosive environments or near coastal areas.

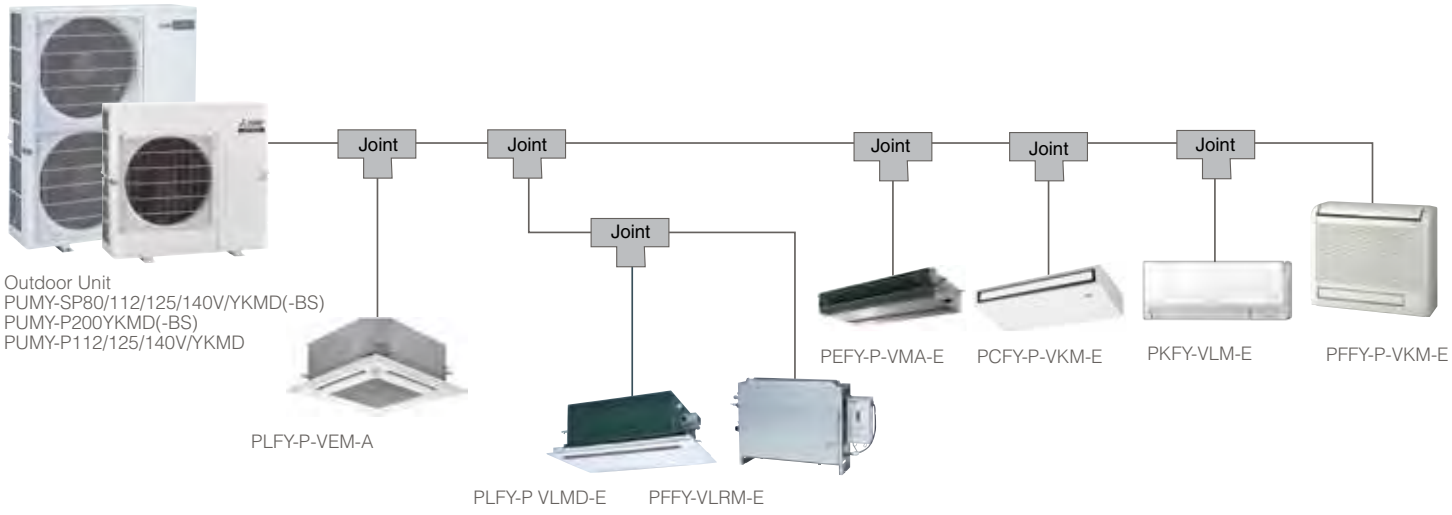
*2 PAC-AK350CVR-E

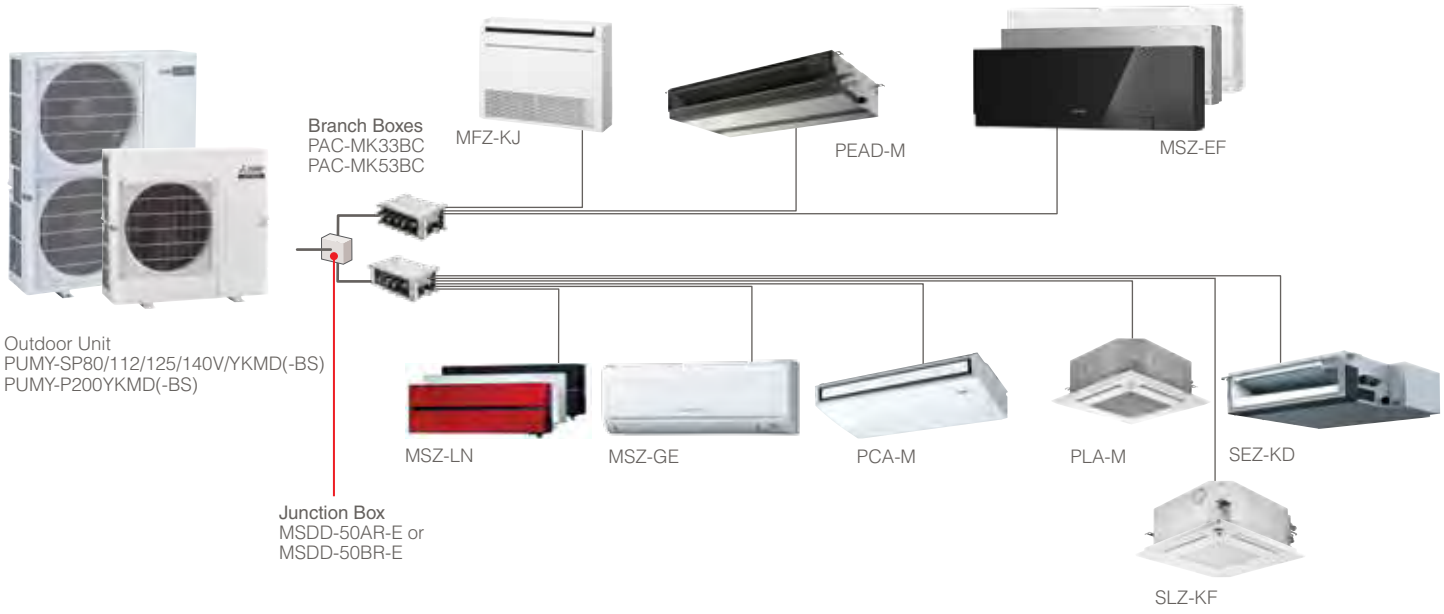
**Notes:**

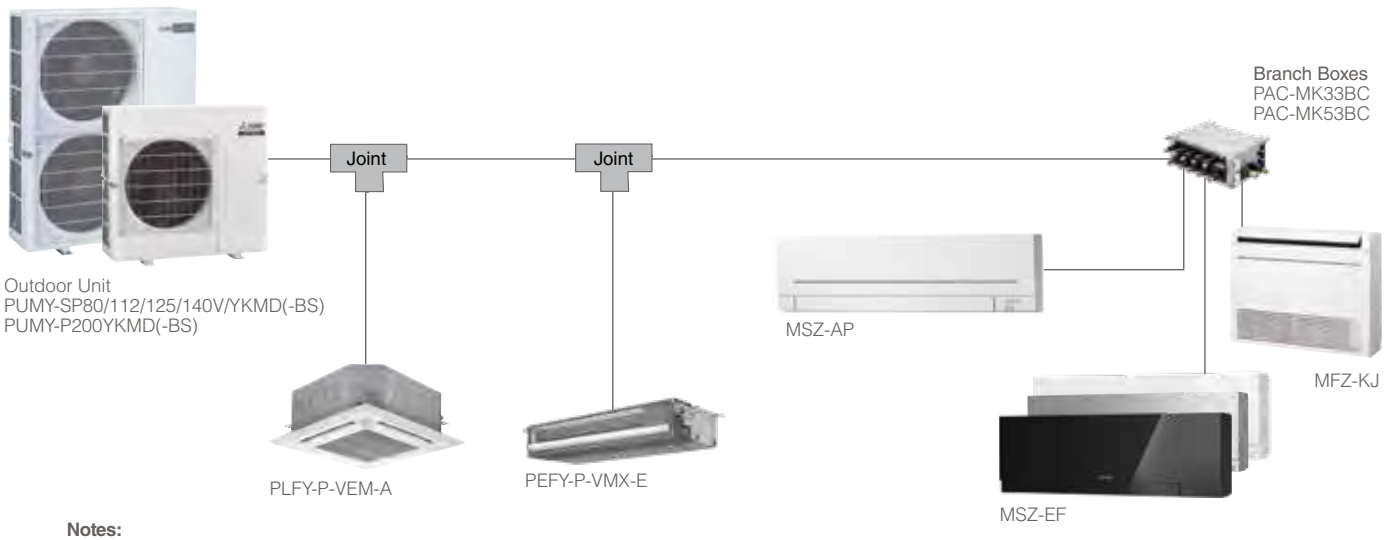
PUMY-P112/125/140 V/YKMD are not compatible with Branch Box, therefore M/S/P Series indoor units are not connectable.

# PUMY SUMMARY

Installation with both City Multi indoor units via T-Piece and Multi-Split indoor units via branchbox.




**Notes:**

PUMY-P112/125/140 V/YKMD are not compatible with Branch Box, therefore M/S/P Series indoor units are not connectable.

*Connectible indoor unit varies depending on capacity.

# OUTDOOR UNIT - S Series

## PUMY-SP VKMD-A(-BS)

| SERIES | | | PUMY-SP (Single Fan) | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | | PUMY-SP80VKMD-A | PUMY-SP80YKMD-A | PUMY-SP112VKMD-A | PUMY-SP112YKMD-A | PUMY-SP125VKMD-A | PUMY-SP125YKMD-A |
| Power Source | | | VKMD: 1-phase 220-230-240 V, 50 Hz; 1-phase 220 V, 60 Hz<br>YKMD: 3-phase 380-400-415 V, 50 Hz; 3-phase 380 V, 60 Hz | | | | | |
| Cooling Capacity (Nominal)*1 | | kW | 9.0 | | 12.5 | | 14.0 | |
| | Power Input | kW | 2.11 | | 3.10 | | 3.84 | |
| | Current Input | A | 9.79 - 9.36 - 8.97 | 3.37 - 3.21 - 3.09 | 14.38 - 13.75 -13.18 | 4.96 - 4.71 - 4.54 | 17.81 -17.04 -16.33 | 6.14 - 5.83 - 5.62 |
| | EER | kW | 4.27 | | 4.03 | | 3.65 | |
| | AEER | kW | 3.35 | | 3.31 | | 3.29 *3 | |
| Temperature Range of Cooling | Indoor | W.B | 15.0 ~ 24.0 °C | | | | | |
| | Outdoor | D.B | -5.0 ~ 52.0 °C *3 *4 *5 | | | | | |
| Heating Capacity (Nominal)*2 | | kW | 10.0 | | 14.0 | | 16.0 | |
| | Power Input | kW | 2.27 | | 3.17 | | 3.90 | |
| | Current Input | A | 10.53 -10.07 - 9.65 | 3.63 - 3.45 - 3.32 | 14.70 -14.06 -13.48 | 5.07 - 4.82 - 4.64 | 18.09 - 17.30 - 16.58 | 6.24 - 5.93 - 5.71 |
| | COP | kW | 4.41 | | 4.42 | | 4.10 | |
| | ACOP | kW | 3.62 | | 3.72 | | 3.56 | |
| Temperature Range of Heating | Indoor | W.B | 15 ~ 27 °C | | | | | |
| | Outdoor | D.B | -20 ~ 15 °C | | | | | |
| Indoor Unit Connectable | Total Capacity | | 50% to 130% of Outdoor Unit Capacity | | | | | |
| | Model/Quantity | | P10-P100/9 | | P15-P140/9 | | P15-P140/10 | |
| Sound Pressure Level (measured in anechoic room) | | dB | 51/54 | | 52/54 | | 53/56 | |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 9.52 (3/8) Flare | | | | | |
| | Gas Pipe | mm (in.) | 15.88 (5/8) Flare | | | | | |
| Fan | Type x Quantity | | Propeller Fan × 1 | | | | | |
| | Airflow Rate | $m^3$/min | 75 | | 77 | | 83 | |
| | | L/s | 1250 | | 1283 | | 1383 | |
| | | cfm | 2649 | | 2719 | | 2931 | |
| | Control, Driving Mechanism | | DC Control | | | | | |
| | Motor Output | kW | 0.20 × 1 | | | | | |
| Compressor | Type x Quantity | | Twin Rotary Hermetic Compressor × 1 | | | | | |
| | Manufacturer | | Mitsubishi Electric Corporation | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 2.1 | | 3.1 | | 3.5 | |
| | Lubricant | | FV50S (1.4 litre) | | | | | |
| External Finish | | | Galvanised Steel Sheet Munsell No. 3Y 7.8/1.1 | | | | | |
| External Dimension (H x W x D) | | mm | 981 × 1,050 × 330 (+25) | | | | | |
| Protection Devices | High Pressure Protection | | High Pressure Switch | | | | | |
| | Inverter Circuit (COMP./FAN) | | Overcurrent Detection, Overheat detection (Heat Sink Thermistor) | | | | | |
| | Compressor | | Compressor Thermistor, Overcurrent Detection | | | | | |
| | Fan Motor | | Overheating, Voltage Protection | | | | | |
| Refrigerant | Type x Original Charge | | R410A × 3.5 kg | | | | | |
| | Control | | Electronic Expansion Valve | | | | | |
| Net Weight | | kg | 93 *5 *6 | | | 94 *7 | 93 *6 | 94 *7 |
| Heat Exchanger | | | Cross Fin and Copper Tube | | | | | |
| HIC Circuit (HIC: Heat Inter-Changer) | | | HIC Circuit | | | | | |
| Defrosting Method | | | Reversed Refrigerant Circuit | | | | | |
| Drawing | External | | RK01J091 | | | | | |
| | Wiring | | BH79N194 | BH79N195 | BH79N194 | BH79N195 | BH79N194 | BH79N195 |
| Standard Attachment | Document | | Installation Manual | | | | | |
| | Accessory | | Grounded Lead Wire | | | | | |
| Optional Parts | | | Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E | | | | | |

**Remarks:**
*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference | External Static Pressure (Outdoor Unit) |
|---|---|---|---|---|---|
| **Cooling** | 27°C DB/19°C WB | 35°C DB | 7.5m | 0m | 0Pa |
| **Heating** | 20°C DB | 7°C DB/6°C WB | | | |

*3 MEPS Part load.
*4 10 to 52:, when connecting following models: PKFY-P15/20/25VBM,PKFY-P10/15/20/25/32VLM, PFFY-P20/25/32VLE(R)M, PFFY-P20/25/32VKM, and M series, S series , and P series type indoor unit with branch box, M series type indoor unit with connection kit.
*5 -15 to 52:, when using an optional air protect guide [PAC-SH95AG-E]. However, this condition does not apply to the indoor unit listed in *4.
*6 94 (207), for PUMY-SP80/112/125/140VKMD.TH-A-BS.*6 93, for PUMY-SP112/125/140VKMD.TH-A-BS.
*7 95 (209), for PUMY-SP112/125/140YKMD.TH-A-BS.
*8 When connecting 7 indoor units via branch box, connectable citymulti indoor units are 3; connecting 8 indoor units via branch box, connectable citymulti indoor units are 2.

**Notes:**
1. Nominal conditions *1, *2 are subject to ISO 15042.
2. Due to continuing improvement, above specifications may be subject to change without notice.

# OUTDOOR UNIT - S Series

## PUMY-P VKM-A(-BS)

| SERIES | | | PUMY-SP (Single Fan) | | PUMY-P (Twin Fan) |
|---|---|---|---|---|---|
| Model | | | PUMY-SP140VKMD-A | PUMY-SP140YKMD-A | PUMY-P200YKMD-A |
| Power Source | | | VKMD: 1-phase 220-230-240 V, 50 Hz; 1-phase 220 V, 60 Hz<br>YKMD: 3-phase 380-400-415 V, 50 Hz; 3-phase 380 V, 60 Hz | | |
| Cooling Capacity (Nominal)*1 | | kW | 15.5 | | 22.4 |
| | Power Input | kW | 4.38 | | 6.22 |
| | Current Input | A | 20.32 - 19.43 - 18.62 | 7.00 - 6.65 - 6.41 | 10.16 - 9.65 - 9.30 |
| | EER | kW | 3.54 | | 3.60 |
| | AEER | kW | 3.40 *3 | | 3.17 |
| Temperature Range of Cooling | Indoor | W.B | 15.0 ~ 24.0 °C | | |
| | Outdoor | D.B | -5.0 ~ 52.0°C *4 *5 | | |
| Heating Capacity (Nominal)*2 | | kW | 16.5 | 16.5 | 25.0 |
| | Power Input | kW | 4.02 | | 6.00 |
| | Current Input | A | 18.65 - 17.83 - 17.09 | 6.24 - 5.93 - 5.71 | 9.80 - 9.31 - 8.98 |
| | COP | kW | 4.10 | | 4.17 |
| | ACOP | kW | 3.55 | | 3.78 |
| Temperature Range of Heating | Indoor | W.B | 15 ~ 27 °C | | |
| | Outdoor | D.B | -20 ~ 15 °C | | |
| Indoor Unit Connectable | Total Capacity | | 50% to 130% of Outdoor Unit Capacity | | |
| | Model/Quantity | | P15-P140/12 | | P15-P200/12 |
| Sound Pressure Level (measured in anechoic room) | | dB | 54/56 | | 57/61 |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 9.52 (3/8) Flare *8 | | |
| | Gas Pipe | mm (in.) | 15.88 (5/8) Flare | | 19.05 (3/4) Flare |
| Fan | Type x Quantity | | Propeller Fan x 1 | | Propeller Fan x 2 |
| | Airflow Rate | $m^3$/min | 83 | 120 | 134 |
| | | L/s | 1,383 | 2,000 | 2,233 |
| | | cfm | 2,931 | 4,237 | 4,732 |
| | Control, Driving Mechanism | | DC Control | | |
| | Motor Output | kW | 0.20 x 1 | | 0.20 + 0.20 |
| Compressor | Type x Quantity | | Twin Rotary Hermetic Compressor x 1 | | Scroll Hermetic Compressor x 1 |
| | Manufacturer | | Mitsubishi Electric Corporation | | |
| | Starting Method | | Inverter | | |
| | Motor Output | kW | 3.7 | | 5.3 |
| External Finish | | | Galvanised Steel Sheet Munsell No. 3Y 7.8/1.1 | | |
| External Dimension (H x W x D) | | mm | 981 × 1,050 × 330 (+25) | | 1,338 x 1,050 x 330 (+25) |
| Protection Devices | High Pressure Protection | | High Pressure Switch | | |
| | Inverter Circuit (COMP./FAN) | | Overcurrent Detection, Overheat Detection (Heat Sink Thermistor) | | |
| | Compressor | | Compressor Thermistor, Overcurrent Detection | | |
| | Fan Motor | | Overheating, Voltage Protection | | |
| Refrigerant | Type x Original Charge | | R410A x 4.8kg | | R410A x 7.3kg |
| | Control | | Electronic Expansion Valve | | Linear Expansion Valve |
| Net Weight | | kg | 93 *6 | 94 *7 | 138 *9 |
| Heat Exchanger | | | Cross Fin and Copper Tube | | |
| HIC Circuit (HIC: Heat Inter-Changer) | | | HIC Circuit | | |
| Defrosting Method | | | Reversed Refrigerant Circuit | | |
| Drawing | External | | RK01J091 | | RK01J635 |
| | Wiring | | BH79N194 | BH79N195 | VG79J111 |
| Standard Attachment | Document | | Installation Manual | | |
| | Accessory | | Ground Lead Wire | | Ground Lead Wire x 1 |
| Optional Parts | | | Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E | | |

**Remarks:**
*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference | External Static Pressure (Outdoor Unit) |
|---|---|---|---|---|---|
| **Cooling** | 27°C DB/19°C WB | 35°C DB | 7.5m | 0m | 0Pa |
| **Heating** | 20°C DB | 7°C DB/6°C WB | | | |

*3 MEPS Part load.
*4 10 to 52:, when connecting following models: PKFY-P15/20/25VBM,PKFY-P10/15/20/25/32VLM, PFFY-P20/25/32VLE(R)M, PFFY-P20/25/32VKM, and M series, S series , and P series type indoor unit with branch box, M series type indoor unit with connection kit.
*5 -15 to 52:, when using an optional air protect guide [PAC-SH95AG-E]. However, this condition does not apply to the indoor unit listed in *4.
*6 94 (207), for PUMY-SP80/112/125/140VKMD.TH-A-BS.*6 93, for PUMY-SP112/125/140VKMD.TH-A-BS.
*7 95 (209), for PUMY-SP112/125/140YKMD.TH-A-BS.
*8 Liquid pipe diameter: 12.7mm, when further piping length is longer than 60m, or the farthest length of the main pipe between the outdoor unit and the branch box is longer than 20m in the branch box system.
*9 139(306), for PUMY-P200YKMD-A-BS.

# OUTDOOR UNIT - S Series

## PUMY-P YKM-A(-BS)

| SERIES | | | PUMY-P (Twin Fan) | | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | | | PUMY-P112VKMD-A | PUMY-P112YKMD-A | PUMY-P125VKMD-A | PUMY-P125YKMD-A | PUMY-P140VKMD-A | PUMY-P140YKMD-A |
| Power Source | | | VKMD: 1-phase 220-230-240 V, 50 Hz; 1-phase 220 V, 60 Hz<br>YKMD: 3-phase 380-400-415 V, 50 Hz; 3-phase 380 V, 60 Hz | | | | | |
| Cooling Capacity (Nominal)*1 | | kW | 12.5 | | 14.0 | | 15.5 | |
| | Power Input | kW | 2.79 | | 3.46 | | 4.52 | |
| | Current Input | A | 12.32 | 4.24 | 15.27 | 5.26 | 19.95 | 6.87 |
| | EER | kW | 4.48 | | 4.05 | | 3.43 | |
| | AEER | kW | 4.13 | 4.07 | 3.76 | 3.71 | 3.22 | 3.19 |
| Temperature Range of Cooling | Indoor | W.B | 15.0 ~ 24.0 °C | | | | | |
| | Outdoor | D.B | -5.0 ~ 46.0°C | -5.0 ~ 52.0 °C *4 | -5.0 ~ 46.0°C | -5.0 ~ 52.0 °C *4 | -5.0 ~ 46.0°C | -5.0 ~ 52.0 °C *4 |
| Heating Capacity (Nominal)*2 | | kW | 14.0 | | 16.0 | | 18.0 | |
| | Power Input | kW | 3.13 | | 3.74 | | 4.47 | |
| | Current Input | A | 13.82 | 4.76 | 16.51 | 5.68 | 19.73 | 6.79 |
| | COP | kW | 4.47 | | 4.28 | | 4.03 | |
| | ACOP | kW | 4.20 | 4.14 | 4.03 | 3.99 | 3.81 | 3.78 |
| Temperature Range of Heating | Indoor | W.B | 15 ~ 27 °C | | | | | |
| | Outdoor | D.B | -20 ~ 15 °C | | | | | |
| Indoor Unit Connectable | Total Capacity | | 50% to 130% of Outdoor Unit Capacity | | | | | |
| | Model/Quantity | | 15 - 125/9 | | 15 - 140/10 | | 15 - 140/12 | |
| Sound Pressure Level (measured in anechoic room) | | dB | 49/51 | | 50/52 | | 51/54 | |
| Refrigerant Piping Diameter | Liquid Pipe | mm (in.) | 9.52 (3/8) Flare *3 | | | | | |
| | Gas Pipe | mm (in.) | 15.88 (5/8) Flare | | | | | |
| Fan | Type x Quantity | | Propeller Fan x 2 | | | | | |
| | Airflow Rate | $m^3$/min | 110 | | | | 120 | |
| | | L/s | 1,833 | | | | 2,000 | |
| | | cfm | 3,884 | | | | 4,237 | |
| | Control, Driving Mechanism | | DC Control | | | | | |
| | Motor Output | kW | 0.06 + 0.06 | | | | | |
| Compressor | Type x Quantity | | Scroll Hermetic Compressor x 1 | | | | | |
| | Manufacturer | | Mitsubishi Electric Corporation | | | | | |
| | Starting Method | | Inverter | | | | | |
| | Motor Output | kW | 3.0 | | 3.5 | | 4.0 | |
| | Lubricant | | FV50S (2.3 litre) | | | | | |
| External Finish | | | Galvanised Steel Sheet Munsell No. 3Y 7.8/1.1 | | | | | |
| External Dimension (H x W x D) | | mm | 1,338 x 1,050 x 330 (+25) | | | | | |
| Protection Devices | High Pressure Protection | | High Pressure Switch | | | | | |
| | Inverter Circuit (COMP./FAN) | | Overcurrent Detection, Overheat Detection (Heat Sink Thermistor) | | | | | |
| | Compressor | | Compressor Thermistor, Overcurrent Detection | | | | | |
| | Fan Motor | | Overheating, Voltage Protection | | | | | |
| Refrigerant | Type x Original Charge | | R410A x 4.8kg | | | | | |
| | Control | | Electronic Expansion Valve | | | | | |
| Net Weight | | kg | 123 | 125 | 123 | 125 | 123 | 125 |
| Heat Exchanger | | | Cross Fin and Copper Tube | | | | | |
| HIC Circuit (HIC: Heat Inter-Changer) | | | HIC Circuit | | | | | |
| Defrosting Method | | | Reversed Refrigerant Circuit | | | | | |
| Drawing | External | | BK01N346 | BK01N339 | BK01N346 | BK01N339 | BK01N346 | BK01N339 |
| | Wiring | | BH78B813 | BH78B814 | BH78B813 | BH78B814 | BH78B813 | BH78B814 |
| Standard Attachment | Document | | Installation Manual | | | | | |
| | Accessory | | Grounded Lead Wire | | | | | |
| Optional Parts | | | Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E | | | | | |

**Remarks:**
*1, *2 Nominal conditions.

| | Indoor | Outdoor | Pipe Length | Level Difference | External Static Pressure (Outdoor Unit) |
|---|---|---|---|---|---|
| **Cooling** | 27°C DB/19°C WB | 35°C DB | 7.5m | 0m | 0Pa |
| **Heating** | 20°C DB | 7°C DB/6°C WB | | | |

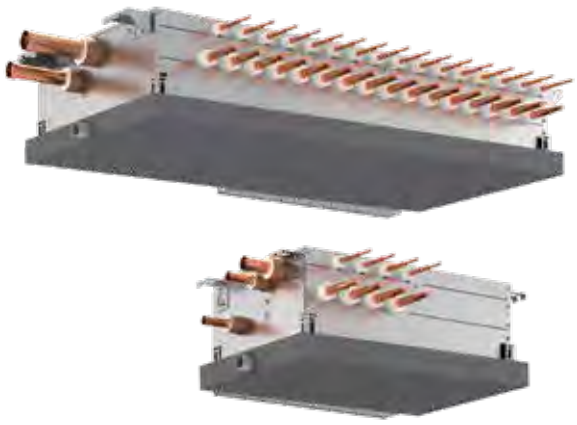
*3 Liquid pipe diameter: 12.7mm, when further piping length is longer than 60m, or the farthest length of the main pipe between the outdoor unit and the branch box is longer than 20m in the branch box system.
*4 10 to 52°C, when connecting following models: PKFY-P15/20/25VBM, PFFY-P20/25/32VLE(R)M, PFFY-P20/25/32VKM type indoor unit; and M-Series, S-Series and P-Series type indoor unit.

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

# The Secret of CITY MULTI Heat Recovery System Lies in the BC Controller

## FOR R2 AND WR2 SERIES

The BC Controller houses a liquid/refrigerant separator, allowing the outdoor/heat source unit to deliver a mixture (2-phase) of hot gas for heating and liquid refrigerant for cooling, all through the same pipe. Three pipe systems allocate a pipe to each of these phases. When this mixture arrives at the BC Controller, it is separated and the correct phase delivered to each indoor unit depending on the individual requirement of either heating or cooling.

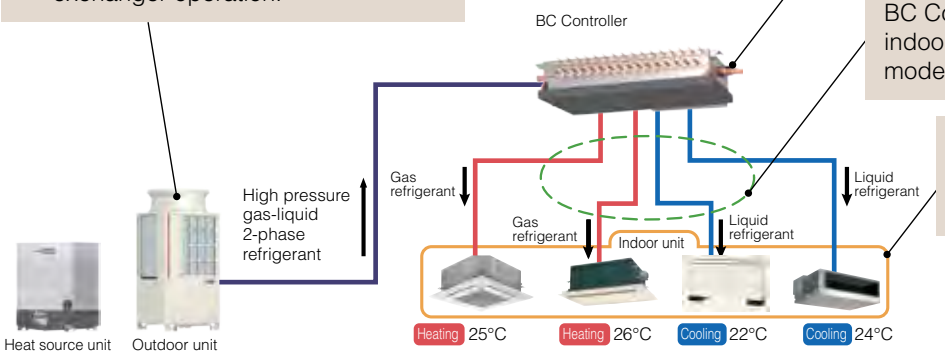


**1** The capacity requirement of the system controls the compressor frequency, and the mode of heat exchanger operation.

**2 R2/WR2 Refrigerant Circuit**
2-phase Gas-liquid refrigerant from outdoor unit is separated into gas and liquid refrigerant by the gas-liquid separator in BC Controller.

BC Controller divides refrigerant to each indoor unit according to the operation mode of each indoor unit.

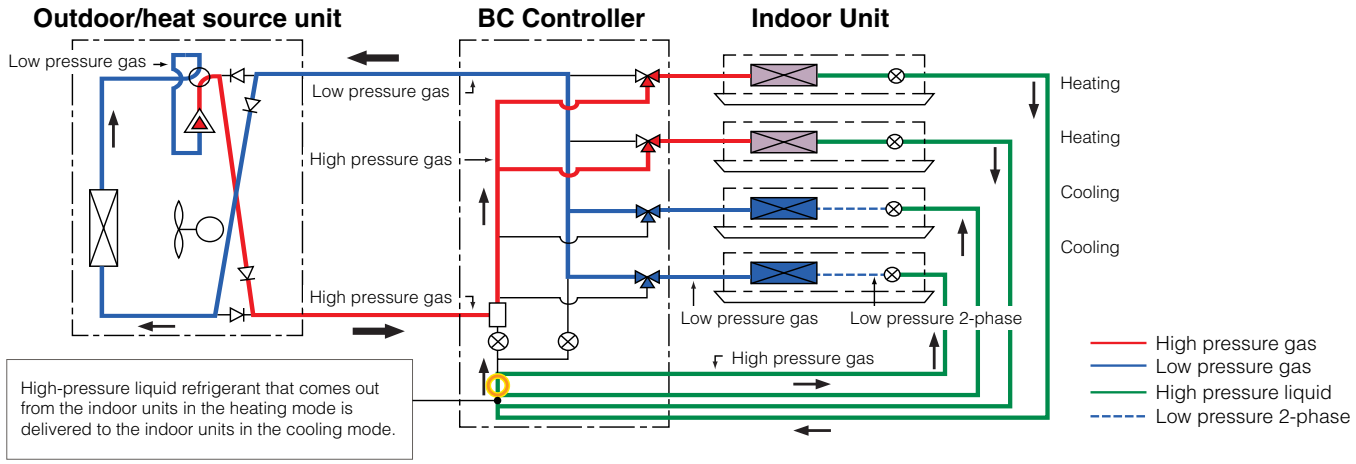
**3** The LEV adjust the refrigerant flow by temperature difference between inlet and outlet.




Meet the demand of
- - - cooling / heating flexibly.

Heating = gas refrigerant
Cooling = liquid refrigerant

### Total heat recovery operation



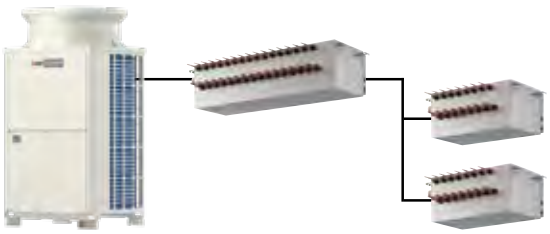

High-pressure liquid refrigerant that comes out from the indoor units in the heating mode is delivered to the indoor units in the cooling mode.

# BC Controller

### Sub-BC controller connections increased

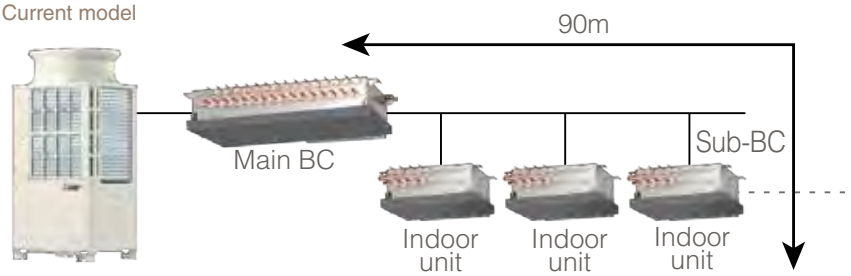
Only two sub-BC controllers could be connected to a main BC controller in previous models. Up to 11 sub-BC controllers can now be connected to the new BC controller, allowing for more flexibility in system design. The line-branching method enables the creation of system designs that use less refrigerant.

Previous model



**Only 2 sub-BC controller connections**

Current model



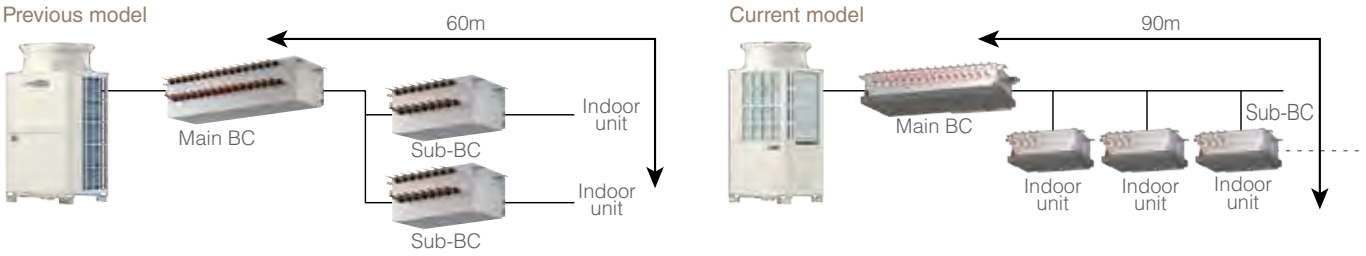

**Connect up to 11 sub-BC controllers**

# OTHER FEATURES

## Greater flexibility in refrigerant piping design

The piping length from the central BC controller to indoor units has been increased from 60m to 90m, providing greater flexibility in piping design.

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




## 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 124kW has been added to the product lineup to handle outdoor units with increased capacities.

Previous model

| Type | Outdoor Unit Capacity |
|---|---|
| G | ~40kW |
| GA | ~73kW |
| HA | ~101kW |

| Type | Total Indoor Unit Capacity |
|---|---|
| GB/HB (sub) | ~40kW |
| Sub-BC (total) | ~50kW |

Current model

| Type | Outdoor Unit Capacity |
|---|---|
| J | ~40kW |
| JA | ~101kW |
| KA | ~124kW |

| Type | Total Indoor Unit Capacity |
|---|---|
| KB (sub) | ~40kW |
| Sub-BC (total) | No limits |

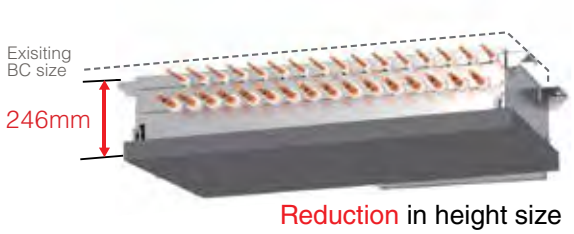
The JA type can handle up to the conventional GA and HA ranges

The KA type can be connected to units up to 124kW, has been added to the product lineup to handle outdoor units with increased capacities.

## 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.

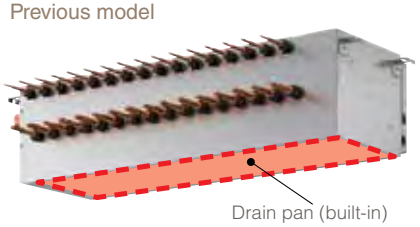



Reduction in height size

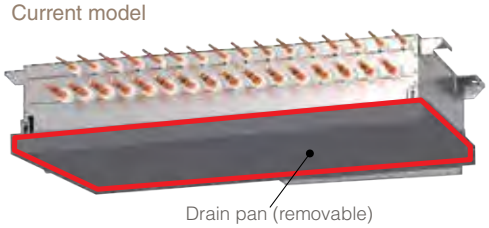
## Improved accessibility to lower surface and serviceability

Previously, the drain pan on existing models were built into the bottom and could 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.

Previous model



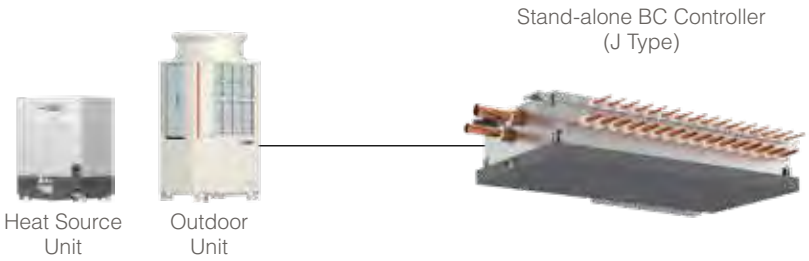

Current model



# LINEUP OF BC CONTROLLERS

The BC controller lineup includes the J type (used alone), the JA and KA types (used as a main-BC controller), and the KB type (used as a sub-BC controller).

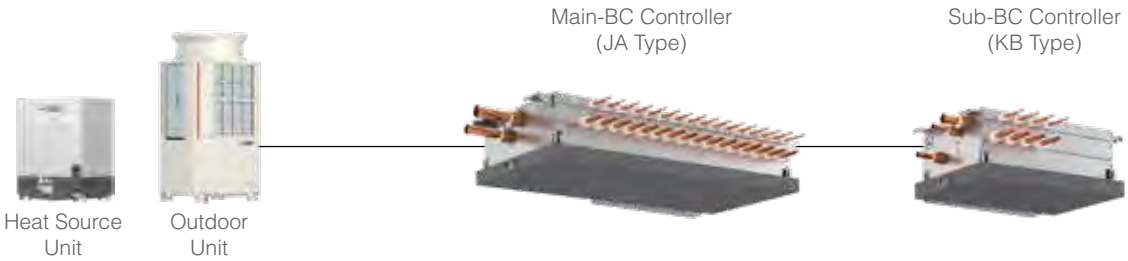
### System with a single BC Controller




## Stand-alone Type (J Type)

| Model | CMB-P104V-JA | CMB-P106V-J | CMB-P108V-J | CMB-P1012V-J | CMB-P1016V-J |
|---|---|---|---|---|---|
| Number of Branches | 4 | 6 | 8 | 12 | 16 |
| Connectable Outdoor/Heat Source Unit Capacity | P200 to P350 | | | | |

### System with a multiple BC Controllers




## Main BC Controller (JA and KA Types)

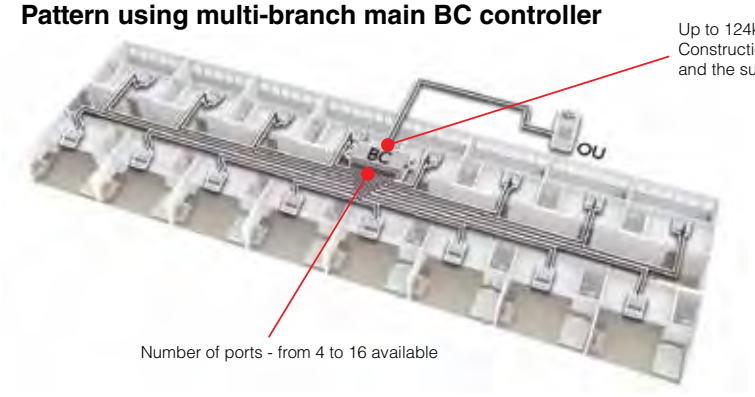
| Model | CMB-P108V-JA | CMB-P1012V-JA | CMB-P1016V-JA | CMB-P1016V-KA |
|---|---|---|---|---|
| Number of Branches | 8 | 12 | 16 | 16 |
| Connectable Outdoor/Heat Source Unit Capacity | P200 to P900 | | | P200 to P1100 |

## Sub-BC Controller (KB Type)

| Model | CMB-P104V-KB | CMB-P108V-KB |
|---|---|---|
| Number of Branches | | 12 |
| Connectable Main-BC Controller | CMB-P108/1012/1016V-JA, CMB-P1016V-KA | |

# BC CONTROLLER DESIGN CAN BE SELECTED FROM VARIOUS PATTERNS DEPENDING ON USE

### Pattern using multi-branch main BC controller





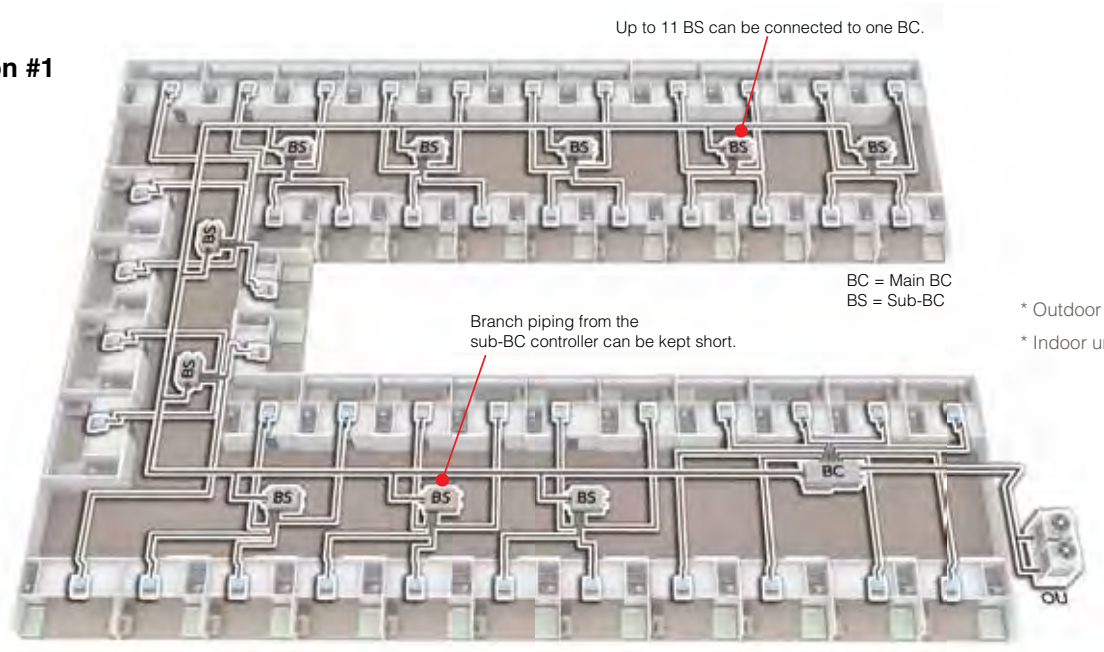
### The line-branching method with a main BC controller and sub-BC controllers

The number of sub-BC controllers that can be connected has been increased from 2 to 11, and sub-BC controllers can now be 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.

### Installation #1




* Outdoor unit: 101kW
* Indoor units: P25 x 48 units

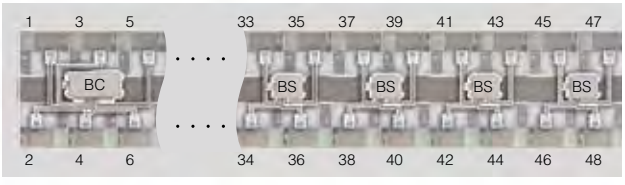
# COMPARISON OF PIPING DESIGN FOR 48 ROOMS

Previous 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.

Current model




The sub-BC controller can be installed near the indoor units, so that 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%***

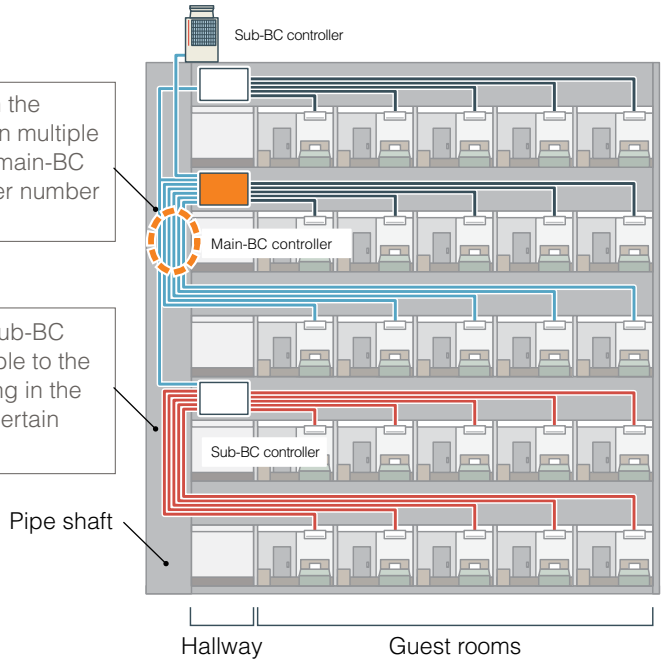
* BC controllers: Existing HA + HB (16-branch) x 2 units
New JA + KB (4-branch) x 10 units

## Installation #2

Conventional model

Connecting the pipes from the air conditioners installed on multiple levels of floors to a single main-BC controller requires a greater number of pipes.

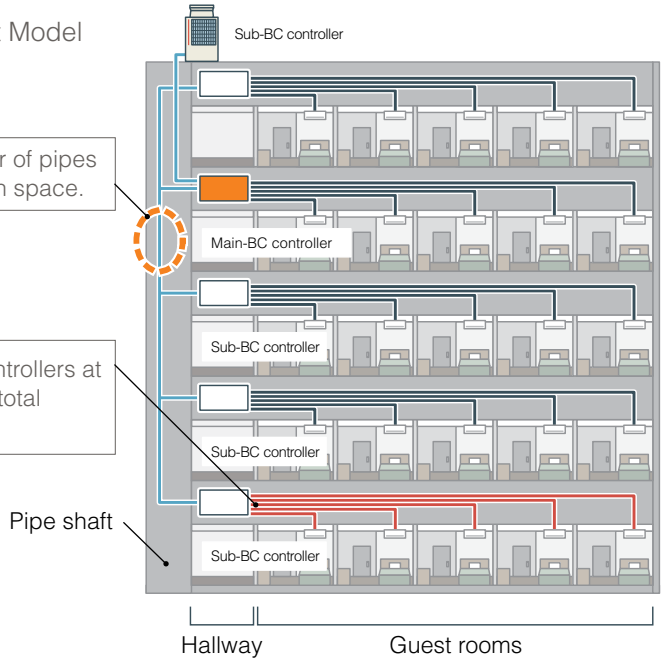
Originally, only up to two sub-BC controllers were connectable to the main-BC controller, resulting in the need for longer piping in certain applications.




## Installation #2 | Current Model

The need for fewer number of pipes requires smaller installation space.

Installation of sub-BC controllers at each floor level reduced total piping length.

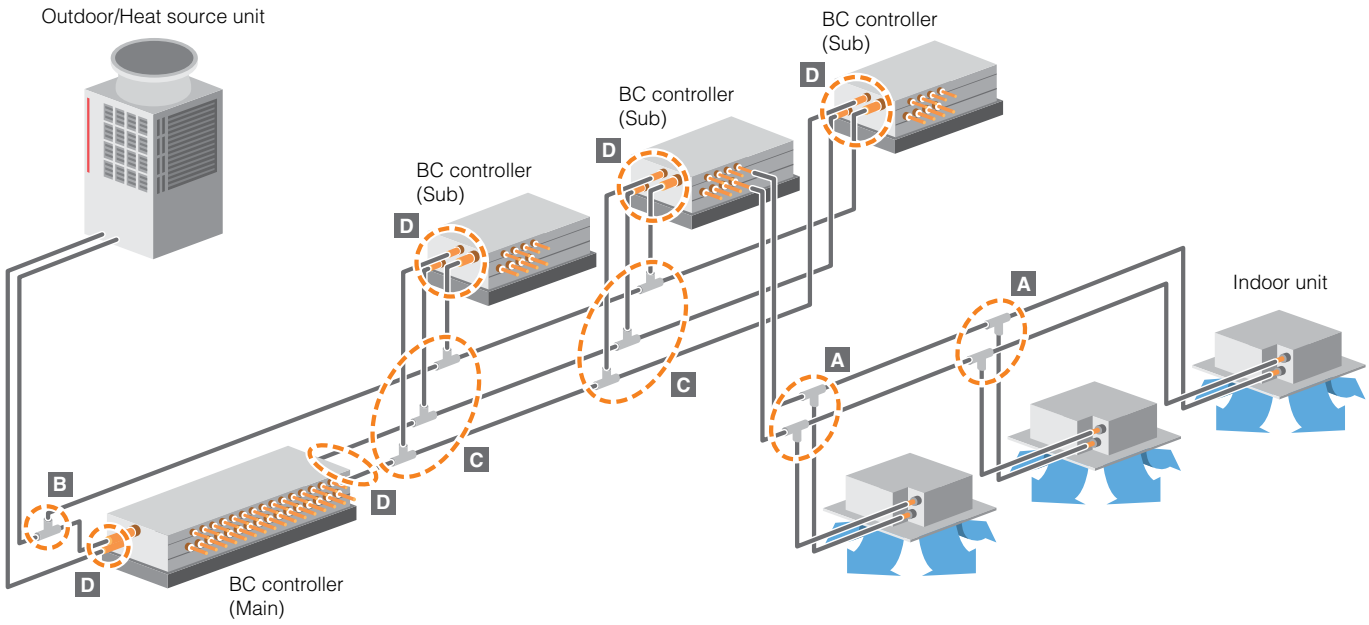



**Refrigerant amount reduced by 20%***

* Outdoor unit: 56kW
* Indoor units: P20 × 25 units
* BC controllers: Existing GA + HB (16-branch) × 2 units
  New JA + KB (8-branch) × 4 units

# OUTDOOR UNITS

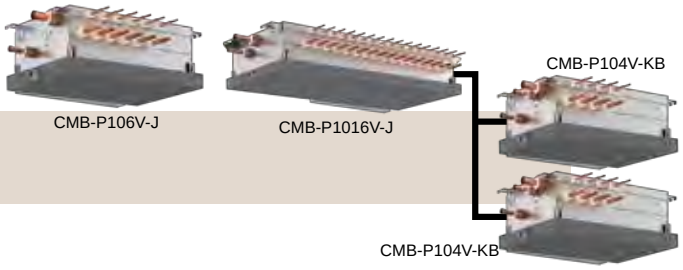
## For BC CONTROLLERS




| | | | | |
|---|---|---|---|---|
| A | Branch Joint | Between BC and Indoor Units | CMY-Y102SS-G2 | Total down-stream indoor unit capcity: - P200 |
| | | | CMY-Y102LS-G2 | Total down-stream indoor unit capacity: P201 - P250 |
| B | Low Pressure Pipe Joint | Between Outdoor Units and Sub BC | CMY-R101S-G | Outdoor unit capacity: P200 - P650 |
| | | | CMY-R102S-G | Outdoor unit capacity: P700 - P1100 |
| C | Branch Joint | Between Main BC and Sub BC | CMY-R201S-G | Total down-stream indoor unit capacity: - P350 |
| | | | CMY-R202S-G | Total down-stream indoor unit capacity: P351 - P600 |
| | | | CMY-R203S-G | Total down-stream indoor unit capacity: P601-P650 |
| | | | CMY-R204S-G | Total down-stream indoor unit capacity: P651 - P1000 |
| | | | CMY-R205-G | Total down-stream indoor unit capacity: P1001 |
| D | Reducer | Between Outdoor Units and BC | CMY-R301S-G | For J type (Outdoor unit capacity: P200 - P300) |
| | | | CMY-R302S-G | For JA type (Outdoor unit capacity: P200 - P900 |
| | | | CMY-R304S-G | For KA type (When using the Sub BC Controller) |
| | | Between Main BC and Sub BC | CMY-R303S-G | For JA type (When using the Sub BC Controller) |
| | | | CMY-R305S-G | For KA type (When using the Sub BC Controller) |
| | | | CMY-R306S-G | For KB type |
| Branch Pipe (Header) | | | CMY-R160-J1 | Joint for connecting to two nozzles |

*1 Main BC Controller has two ports for Sub BC Controller. Low pressure pipe has to be branched from the outdoor unit. ("B" in the figure)
*2 Items "B" and "C" are not necessary when J-type BC Controller is used.

# BC CONTROLLER




## CMB-P-V-J/JA/KA/KB

| Model | | | | CMB-P104V-J | CMB-P106V-J | CMB-P108V-J | CMB-P1012V-J | CMB-P106V-J |
|---|---|---|---|---|---|---|---|---|
| Number of Branches | | | | 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 | kW | 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 | | | | Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised 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 | | | | |
| Weight | | 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 Pressure Pipe | | 15.88 (5/8) Brazed | 19.05 (3/4) Brazed | | 19.05 (3/4) Brazed or 22.2 (7/8) Brazed | |
| | | Low Pressure 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, 22.2 with Optional Joint Pipe Used.) (19.05, 22.2 with Optional Joint Pipe Used.) | | | | |
| Drain Pipe | | mm | | O.D. 32 | | | | |
| Net Weight | | kg | | 23 | 27 | 31 | 46 | 56 |
| 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 Branches | | | | 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 | kW | 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 | | | | Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised 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 | | |
| Weight | | mm | | 911 | 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 P900 | | |
| | | High Pressure Pipe | | 15.88 (5/8) Brazed / 19.05 (3/4) Brazed / 19.05 or 22.2 (7/8) Brazed / 22.2 (7/8) Brazed / 22.2 or 28.58 (1-1/8) Brazed | | 28.58 (1-1/8) Brazed |
| | | Low Pressure Pipe | | 19.05 (3/4) Brazed / 22.2 (7/8) Brazed / 28.58 (1-1/8) Brazed / 28.58 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, 22.2 with Optional Joint Pipe Used.) | | |
| | To other BC controller | | | Total Down-Stream Indoor Unit Capacity | | |
| | | | | to P200 / P201 to P300 / P301 to 350 / P351 to P400 / P401 to P600 / P601 to P650 / P651 to P800 / P801 to P1000 / P1001 or above | | |
| | | High Pressure 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 Pressure 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 | | |

| Model | | | CMB-P108V-JA | CMB-P1012V-JA | CMB-P1016V-JA |
|---|---|---|---|---|---|
| Drain Pipe | mm | | O.D. 32 (1-1/4) | | |
| Net Weight | kg | | 45 | 55 | 63 |
| 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 Power 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 | | |

## Combination chart of BC Controller for R2 Series (YNW)

| | P200-P350 | P400-P900 | P950-P1100 |
|---|---|---|---|
| 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 | | |

| Model | | | | CMB-P1016V-KA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Branches | | | | 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 | kW | 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 | | | | Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised 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 P1100 | | | | | | | | |
| Height | mm | | | 246 | | | | | | | | |
| Weight | 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 P900 | P1050 to P1100 |
| | | High Pressure Pipe | | 15.88 (5/8) Brazed | 19.05 (3/4) Brazed | 19.05 or 22.2 (7/8) Brazed | 22.2 (7/8) Brazed | 22.2 or 28.58 (1-1/8) Brazed | | 28.58 (1-1/8) Brazed | | | 34.93 (1-3/8) Brazed |
| | | Low Pressure Pipe (Brazed) | | 19.05 (3/4) Brazed | 22.2 (7/8) Brazed | 28.58 (1-1/8) Brazed | | | 28.58 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, 22.2 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 Pressure 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 Pressure 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 | | | O.D. 32 (1-1/4) | | | | | | | | |
| Net Weight | kg | | | 65 | | | | | | | | |
| 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 | | | | | | | | |

**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-P104V-KB *14*15 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Branches | | | | 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 | kW | 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 | | | | 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 | | | | | | | | |
| Weight | | mm | | 596 | | | | | | | | |
| Depth | | mm | | 495 | | | | | | | | |
| Refrigerant piping diameter | 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, 22.2 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 Pressure Pipe | | 15.88 (5/8) Brazed | 19.05 Brazed | | 22.2 Brazed | | 28.58 (1-1/8) Brazed | | | 34.93 (1-3/8) Brazed |
| | | Low Pressure 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 | | O.D. 32 (1-1/4) | | | | | | | | |
| Net Weight | | kg | | 21 | | | | | | | | |
| 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 | 73 | | | | | | | | |
| Sound Pressure Level (Measured in Anechoic Room) | | dB <A> | Rated Operation | 38 (When P200 Outdoor/Heat Source Unit is Connected, 39 (P250), 40 (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).

# Indoor Units

# Lineup of Indoor Units

| Type | | Ceiling Cassette Type | | | | Ceiling Concealed Type | |
|---|---|---|---|---|---|---|---|
| Model | | PLFY-P VEM-A<br>4-Way Air Flow | PLFY-P VFM-E1<br>4-Way Air Flow | PLFY-P VLMD-E<br>2-Way Air Flow | PMFY-P VBM-E<br>1-Way Air Flow | PEFY-P VMR-E-L/R<br>Low Noise Type | PEFY-P VMS1(L)-E<br>Compact Depth Type |
| | |  |  |  |  |  |  |
| Line Up | P15 | | ● | | | | ● |
| | P20 | | ● | ● | ● | ● | ● |
| | P25 | | ● | ● | ● | ● | ● |
| | P32 | ● | ● | ● | ● | ● | ● |
| | P40 | ● | ● | ● | ● | | ● |
| | P50 | ● | ● | ● | | | ● |
| | P63 | ● | | ● | | | ● |
| | P80 | ● | | ● | | | |
| | P100 | ● | | ● | | | |
| | P125 | ● | | ● | | | |

| Type | | Ceiling Concealed Type | | | | | |
|---|---|---|---|---|---|---|---|
| Model | | PEFY-P VMX(L)-E(1)<br>Compact<br>Depth Type | PEFY-P VMA(L)-E<br>Medium Static<br>Pressure Type | PEFY-P VMA3-E<br>Medium Static<br>Pressure Type | PEFY-P VMHS-E<br>High Static<br>Pressure Type | PEFY-P VMHS-E-F<br>Fresh Air Intake Type | PEFY-P VMH-E-F<br>Fresh Air Intake |
| | |  |  |  |  |  |  |
| Line Up | P15 | ● | | | | | |
| | P20 | ● | ● | ● | | | |
| | P25 | ● | ● | | | | |
| | P32 | ● | ● | | | | |
| | P40 | ● | ● | | ● | | |
| | P50 | ● | ● | | ● | | |
| | P63 | ● | ● | | ● | | |
| | P71 | | ● | | ● | | |
| | P80 | | ● | | ● | | ● |
| | P100 | | ● | | ● | | |
| | P125 | | ● | | ● | ● | |
| | P140 | | ● | | ● | | ● |
| | P200 | | | | ● | ● | ● |
| | P250 | | | | ● | ● | ● |

| Type | | Ceiling Suspended Type | Wall Mounted Type | | | Floor Standing/Floor Mounted Concealed Type | | |
|---|---|---|---|---|---|---|---|---|
| Model | | PCFY-P VKM-E | PKFY-P VLM-E | PKFY-P VLM-E | PKFY-P VKM-E | PFFY-P VKM-E2 | PFFY-P VLEM-E | PFFY-P VLRM-E<br>PFFY-P VLRMM-E |
| | |  |  |  |  |  |  |  |
| Line Up | P15 | | ● | | | | | |
| | P20 | | ● | | | ● | ● | ● |
| | P25 | | ● | | | ● | ● | ● |
| | P32 | | ● | | | ● | ● | ● |
| | P40 | ● | | ● | | ● | ● | ● |
| | P50 | | | ● | | | ● | ● |
| | P63 | ● | | | ● | | ● | ● |
| | P100 | ● | | | ● | | | |
| | P125 | ● | | | | | | |

# Provide Comfort to All Corners of the Room

## CEILING CASSETTE TYPE | 4-WAY AIRFLOW TYPE

Ceiling cassette air conditioning systems are an ideal option to air condition rooms where there is no available walls to mount a split system or where there is limited ceiling space for a ducted system. Its whisper quiet operation is ideal for master bedrooms, living rooms and other single room residential or commercial uses.

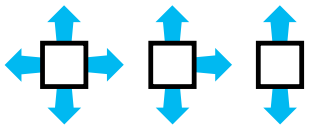
# PLFY-P VEM-A

## 4-WAY AIRFLOW TYPE

## OPTIMUM AIRFLOW

### 2-,3-,4-way airflow pattern selection

Three outlet options to choose from: bi-directional, three-way, and four-way to suit different types of installation. Select, for example, four-directional for installation in the center of the room and three-directional for installation in the corner.

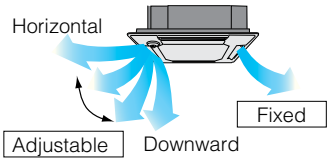


2-,3-,4-way air flow pattern selection.
*Optional shuffle placement is required for 2- and 3-way patterns.

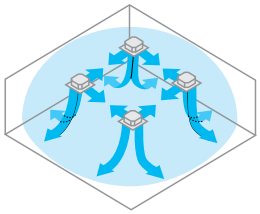
### Individual vane angle settings

Vane directions can be changed or fixed from the remote controller to direct the supply air at or away from the objects or the occupants in the room.

Airflow direction at each vane can be set using the wired remote controller of the wireless remove controller (PAR-SL100A-E).




### Multi-directional air conditioning



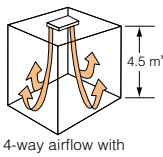
**2-, 3-, 4-way airflow pattern selection**

**Individual vane angle settings**

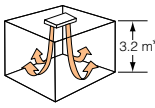
The combination of individual vane setting, which enables the optimal outlet setting for each room layout, and the wide airflow function works to ensure even temperature distribution throughout each room. The result is uniformly comfortable air conditioning.

## EQUIPPED WITH HIGH AND LOW-CEILING MODES

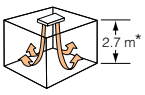
Units are equipped with high and low-ceiling operation modes that make it possible to switch the airflow volume to match a room's height. The ability to choose the optimum airflow volume makes it possible to optimise the breezy sensation felt throughout the room.




4-way airflow with high-ceiling setting




4-way airflow with standard setting




4-way airflow with low-ceiling setting

*P100

| Model / Airflow pattern | P20-P80 | | | P100/P125 | | |
|---|---|---|---|---|---|---|
| | High-ceiling setting | Standard setting | Low-ceiling setting | High-ceiling setting | Standard setting | Low-ceiling setting |
| 4-way | 3.5m | 2.7 | 2.5m | 4.5m | 3.2m | 2.7m |
| 3-way | 3.5m | 3.0m | 2.7m | 4.5m | 3.6m | 3.0m |
| 2-way | 3.5m | 3.3m | 3.0m | 4.5m | 4.0m | 3.3m |

## AUTOMATIC AIR-SPEED ADJUSTMENT

An automatic air-speed mode that adjusts airflow speed automatically is adopted to maintain comfortable room conditions at all times. 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.

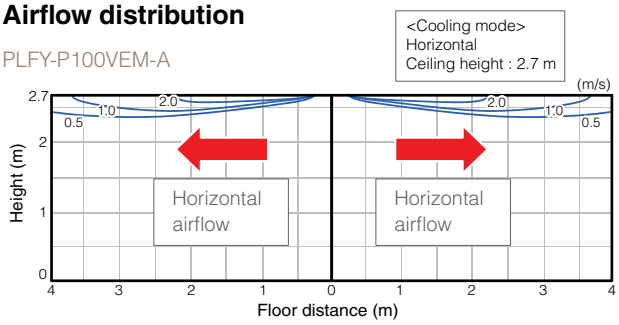

When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable and comfortable heating/cooling operation.

# HORIZONTAL AIRFLOW

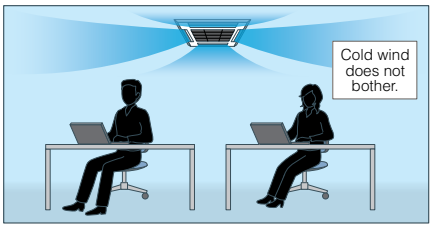
Air supply is horizontally fed into the space to reduce the feeling of cold draft suitable for offices and restaurants.

### Airflow distribution

PLFY-P100VEM-A




### Horizontal airflow




# EASY INSTALLATION

## Temporary hanging hook

The structure of the panel has been redesigned and is now equipped with a temporary hanging hook. This has improved work efficiency during panel installation.

## Electrical box wiring

After reviewing the power supply terminal position in the electrical box, the structure was redesigned to improve connectivity. This has made complex wiring work easier.

**Previous model**

**Current model**

## No need to remove screws

Installation is possible without removing the screws for the corner panel and the control box, simply loosen them. This lowers the risk of losing screws.

**Corner panel**

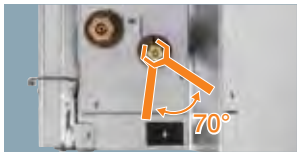
**Control box cover**

## Increased space for plumbing work

The top and bottom positions of the liquid gas pipes have been reversed to allow the gas pipe work, which requires more effort, to be completed first. Further, through structural innovations related to the space around the pipes, the area where the spanner can be moved has been increased, thus improving liquid pipe work and enabling it to be completed smoothly.

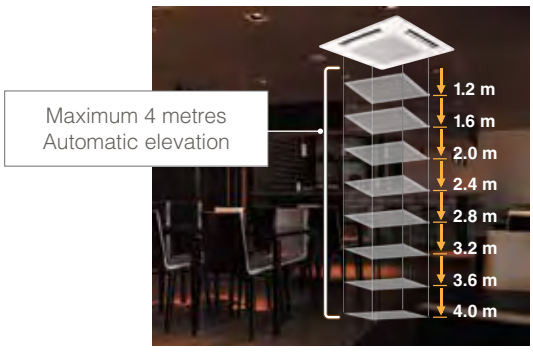
**Previous model**


**Current model**




# EASY CLEANING

With the automatic elevation panel, cleaning the filter is easy, even with high ceilings.



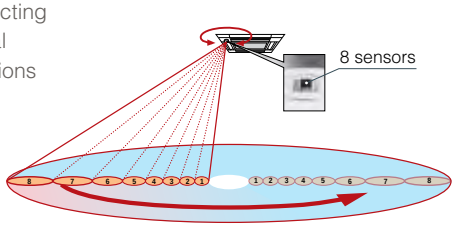

# IT TERMINAL

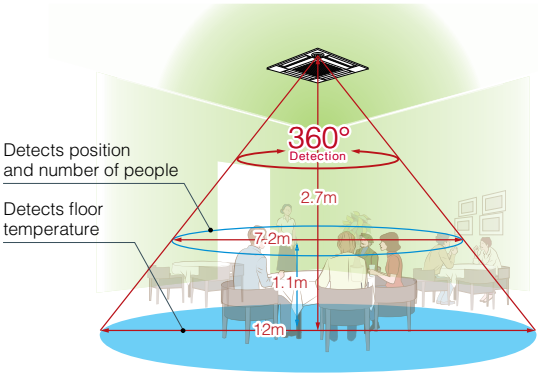
IT terminal is available. For details, contact your local distributor.

# 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

## Room occupancy energy-saving mode

The 3D i-See Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air conditioning power. Air conditioning power equivalent to 1°C is saved during both cooling and heating operation at an occupancy rate of approximately 30%. The temperature is controlled according to the number of people.

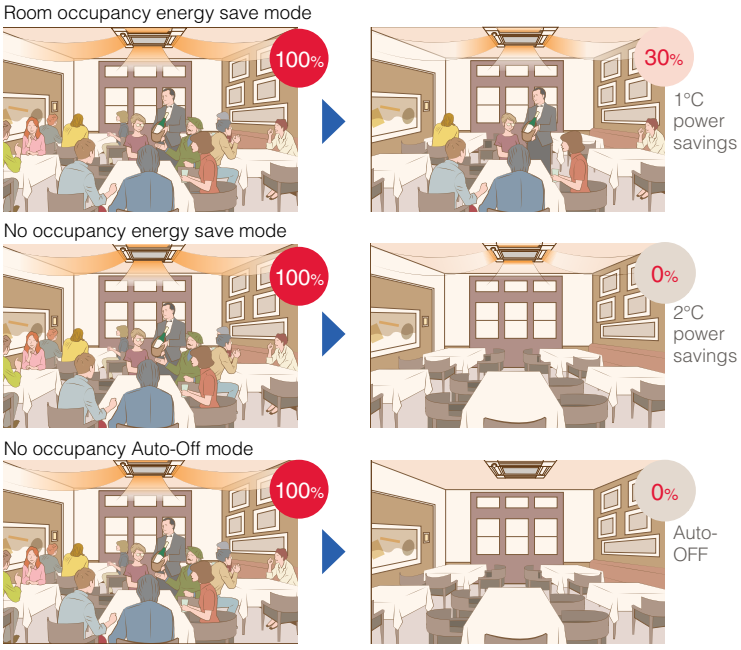
## No occupancy energy-saving mode

When 3D i-See Sensor detects that no one is in the room, the system is switched to a preset power-saving mode. If the room remains unoccupied for more than 60 minutes, air conditioning power equivalent to 2°C is saved during both cooling and heating operation. This contributes to preventing waste in terms of heating and cooling.

## No occupancy Auto-OFF mode

When the room remains unoccupied for a preset period of time, the air conditioner turns off automatically, thereby providing even greater power savings. The time until operation is stopped can be set in intervals of 10 minutes, ranging from 60 to 180 minutes.

*No occupancy Auto-OFF mode is not available when multiple indoor units are operated by one MA remote controller.




*PAR-33MAA is required for each setting.

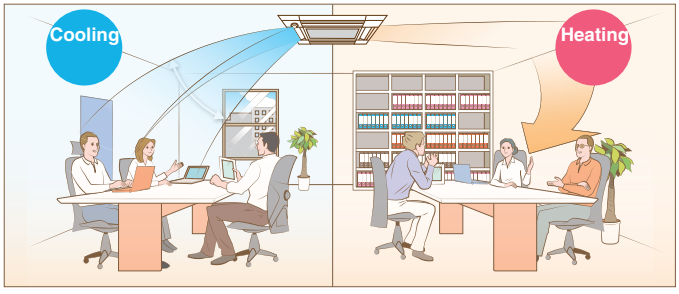
## Seasonal airflow

When cooling

Saves energy while keeping a comfortable effective temperature by automatically switching between ventilation and cooling. When a pre-set temperature is reached, the air conditioning unit switches to swing fan operation to maintain the effective temperature. This clever function contributes to keeping a comfortable coolness.

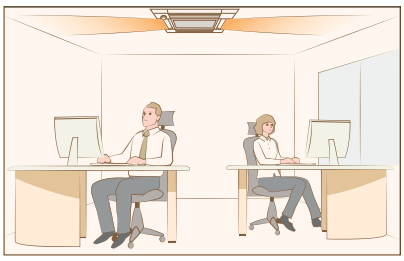
When heating

The air conditioning unit automatically switches between circulator and heating. Wasted heat that accumulates near the ceiling is reused via circulation. When a preset temperature is reached the air conditioner switches from heating to circulator and blows air in the horizontal direction. It pushes down the warm air that has gathered near the ceiling to people's height, thereby providing smart heating.




## Direct/indirect setting

Some people do not like the feeling of wind, while others 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 to block or not block to the wind for each vane.



SPECIFICATIONS

# INDOOR UNIT - CEILING CASSETTE TYPE

## PLFY-P VEM-A / 4-Way Airflow

| Model | | | PLFY-P32VEM-A | PLFY-P40VEM-A | PLFY-P50VEM-A | PLFY-P63VEM-A | PLFY-P80VEM-A | PLFY-P100VEM-A | PLFY-P125VEM-A |
|---|---|---|---|---|---|---|---|---|---|
| Power Source | | | 1-phase 220/230/240V 50Hz, 220/230V 60Hz | | | | | | |
| Cooling Capacity*1 | | kW | 3.6 | 4.5 | 5.6 | 7.1 | 9.0 | 11.2 | 14.0 |
| | | BTU/h | 12,300 | 15,400 | 19,100 | 24,200 | 30,700 | 38,200 | 47,800 |
| Heating Capacity*2 | | kW | 4.0 | 5.0 | 6.3 | 8.0 | 10.0 | 12.5 | 16.0 |
| | | BTU/h | 13,600 | 17,100 | 21,500 | 27,300 | 34,100 | 42,700 | 54,600 |
| Power Consumption | Cooling | kW | 0.03 | | | | 0.05 | 0.07 | 0.11 |
| | Heating | kW | 0.03 | | | | 0.05 | 0.07 | 0.11 |
| Current | Cooling | A | 0.32 | | | 0.36 | 0.50 | 0.67 | 1.06 |
| | Heating | A | 0.25 | | | 0.29 | 0.43 | 0.60 | 0.99 |
| External Finish (Munsell No.) | | Unit | Galvanised Steel Sheet | | | | | | |
| | | Panel | MUNSELL (1.0Y/9.2/0.2) | | | | | | |
| Dimension H x W x D | Unit | mm | 258 x 840 x 840 | | | | | 298x840x840 | |
| | Panel | mm | 40 x 950 x 950 | | | | | | |
| Net Weight | Unit | kg | 19 | | | 21 | | 24 | |
| | Panel | kg | 5 | | | | | | |
| Heat Exchanger | | | Micro Slit Fin (Aluminum Fin and Copper Tube) | | | | | | |
| Fan | Type x Quantity | | Turbo Fan x 1 | | | | | | |
| | Air Flow Rate *2 (Lo-Mid2-Mid1-Hi) | m³/min | 13-14-16-17 | | 13-14-16-19 | 15-16-17-19 | 15-18-20-23 | 20-23-26-29 | 24-26-30-35 |
| | | L/s | 217-233-267-283 | 217-233-267-300 | 217-233-267-317 | 250-267-283-317 | 250-300-333-383 | 333-383-433-483 | 400-433-500-583 |
| | | cfm | 459-494-565-600 | 459-494-565-636 | 459-494-565-671 | 530-565-600-671 | 530-636-706-812 | 706-812-918-1024 | 847-918-1060-1236 |
| | 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.) | 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 *2 *3 (Low-Mid2-Mid1-Hi) | | dB(A) | 26-27-29-31 | 26-27-29-31 | 26-27-29-31 | 28-29-30-32 | 28-31-34-37 | 34-37-39-41 | 35-39-42-45 |

# OPTIONAL PARTS

# INDOOR UNITS

## For PLFY-P VEM-A / 4-Way Airflow

| Description | Model | Applicable Capacity |
|---|---|---|
| Branch Pipe (2 Branch) | CMY-Y62-G-E | P32, P40, P50, P63, P80, P100, P125 |
| Header | CMY-Y64-G-E | P32, P40, P50, P63, P80, P100, P125 |
| Header | CMY-Y68-G-E | P32, P40, P50, P63, P80, P100, P125 |
| Drain Socket | PAC-SG61DS-E | P32, P40, P50, P63, P80, P100, P125 |
| Centralised Drain Pan | PAC-SH97DP-E | P32, P40, P50, P63, P80, P100, P125 |
| Port Connector (Ø9.52 →Ø12.7) | PAC-SG73RJ-E | P32, P40, P50, P63, P80, P100, P125 |
| 3RUW &RQQHFWRU (Ø15.88 →Ø19.05) | PAC-SG75RJ-E | P32, P40, P50, P63, P80, P100, P125 |
| Air Outlet Guide | PAC-SJ37SP-E | P32, P40, P50, P63, P80, P100, P125 |

**Notes:**
*Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
*Due to continuing improvement, above specifications may be subject to change without notice.
*1. Nominal cooling conditions
Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
*2. Nominal heating conditions
Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

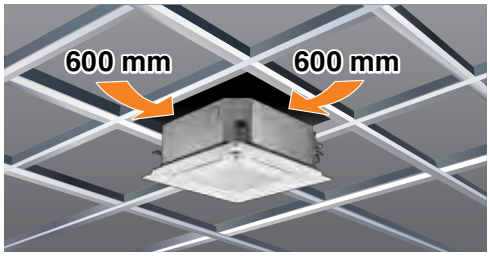
# PLFY-P VFM-E

## 4-WAY AIRFLOW TYPE

Size which perfectly fits to grid system ceiling (600 mm × 600 mm). Possible to blow in 4-way direction even though it is a compact size.

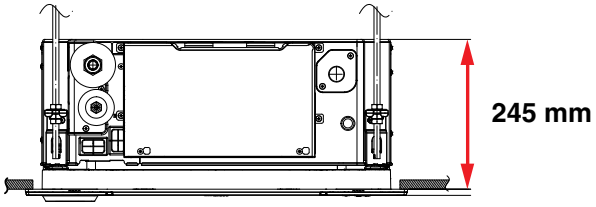
## BEAUTIFUL SQUARE DESIGN

The straight square design matches 2 × 2 (600 mm × 600 mm) ceiling construction specifications.
Direct line-based square design enables designs of system ceiling to match the design of direct line type illuminations, thereby creating a beautiful space.




## 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.)

## COMPACT AND LIGHT-WEIGHT DESIGN

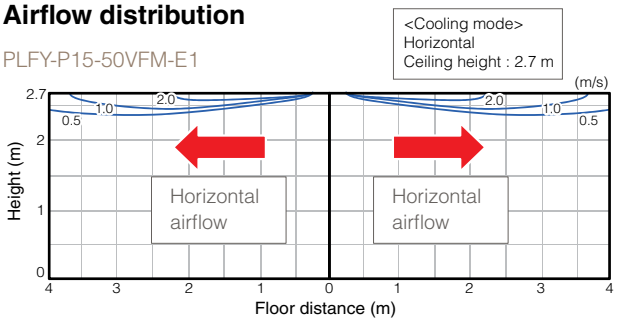
The panel weighs 3 kg, and the unit's body weighs 14 kg (P15, P20 and P25 models) or 15 kg (P32, P40 and P50 models).

## HORIZONTAL AIRFLOW

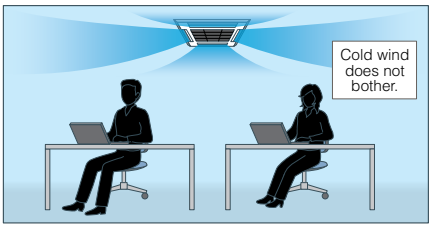
Air supply is horizontally fed into the space to reduce the feeling of cold draft. The ideal airflow for offices and restaurants.

**Airflow distribution**

PLFY-P15-50VFM-E1



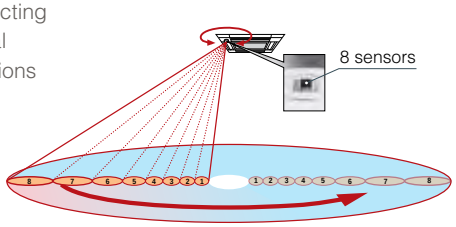

**Horizontal airflow**

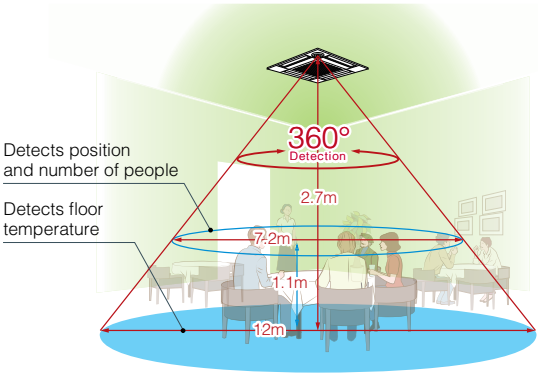


# 3D i-SEE SENSOR

## 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

## Room occupancy energy-saving mode

the 3D i-See Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air conditioning power. Air conditioning power equivalent to 1°C is saved during both cooling and heating operation at an occupancy rate of approximately 30%. The temperature is controlled according to the number of people.

## No occupancy energy-saving mode

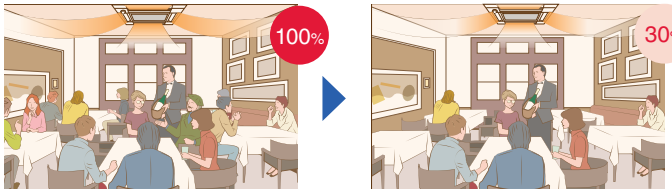
When 3D i-See Sensor detects that no one is in the room, the system is switched to a preset power-saving mode. If the room remains unoccupied for more than 60 minutes, air conditioning power equivalent to 2°C is saved during both cooling and heating operation. This contributes to preventing waste in terms of heating and cooling.

## No occupancy Auto-OFF mode

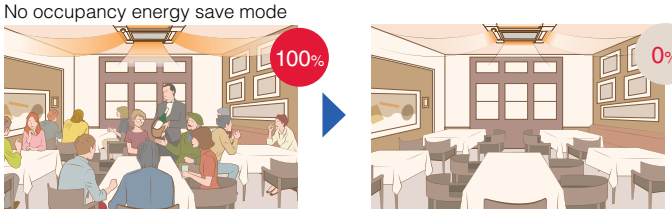
When the room remains unoccupied for a preset period of time, the air conditioner turns off automatically, thereby providing even greater power savings. The time until operation is stopped can be set in intervals of 10 minutes, ranging from 60 to 180 minutes.

*No occupancy Auto-OFF mode is not available when multiple indoor units are operated by one MA remote controller.

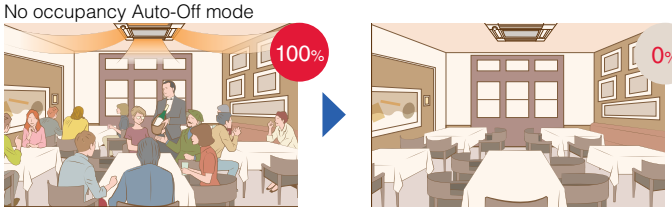
Room occupancy energy save mode




No occupancy energy save mode




No occupancy Auto-Off mode




*PAR-33MAA is required for each setting.

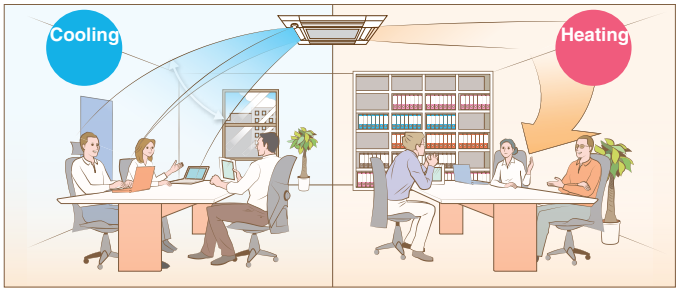
## Seasonal airflow

When cooling

Saves energy while keeping a comfortable effective temperature by automatically switching between ventilation and cooling. When a pre-set temperature is reached, the air conditioning unit switches to swing fan operation to maintain the effective temperature. This clever function contributes to keeping a comfortable coolness.

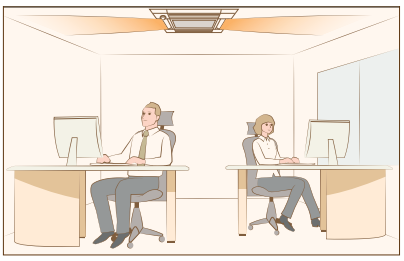
When heating

The air conditioning unit automatically switches between circulator and heating. Wasted heat that accumulates near the ceiling is reused via circulation. When a preset temperature is reached the air conditioner switches from heating to circulator and blows air in the horizontal direction. It pushes down the warm air that has gathered near the ceiling to people's height, thereby providing smart heating.




## Direct/indirect setting

Some people do not like the feeling of wind, while others 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 to block or not block to the wind for each vane.



# INDOOR UNIT - CEILING CASSETTE TYPE

## PLFY-P VFM-E1 / 4-Way Airflow

| Model | | | 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 |
| | | BTU/h | 5,800 | 7,500 | 9,600 | 12,300 | 15,400 | 19,100 |
| Heating Capacity (Nominal)*1 | | kW | 1.9 | 2.5 | 3.2 | 4.0 | 5.0 | 6.3 |
| | | 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 | Galvanised Steel Sheet | | | | | |
| | | Panel | MUNSELL (1.0Y/9.2/0.2) | | | | | |
| Dimension H x W x D | Unit | mm | 208 x 570 x 570 | | | | | |
| | Panel | mm | 10 x 625 x 625 | | | | | |
| Net Weight | Unit | kg | 14 | | | 15 | | |
| | Panel | kg | 3 | | | | | |
| Heat Exchanger | | | Cross Fin (Aluminum Fin and Copper Tube) | | | | | |
| Fan | Type x Quantity | | Turbo Fan x 1 | | | | | |
| | Air Flow 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 DB/19°C WB, Outdoor 35°C DB
Heating : Indoor 20°C DB, Outdoor 7°C DB/6°C WB
*2 It is measured in anechoic room at power source 230V.

OPTIONAL PARTS

# INDOOR UNITS

## For PLFY-P VFM-E1 / 4-Way Airflow

| Description | Model | Applicable Capacity |
|---|---|---|
| i-See Sensor Corner Panel | PAC-SF1ME-E | P15, P20, P32, P40, P50 |
| Wareless Signal Receiver | Par-SF9FA-E | P15, P20, P32, P40, P50 |

PANEL & PANEL CORNER

# INDOOR UNITS

## For PLFY-P VFM-E1 / 4-Way Airflow

| | | With Signal Receiver | With 3D i-See Sensor | With Wireless Remote Controller |
|---|---|---|---|---|
| Panel | SLP-2FA | | | |
| | SLP-2FAL | ✓ | | |
| | SLP-2FAE | | ✓ | |
| | SLP-2FALE | ✓ | ✓ | |
| | SLP-2FALM | ✓ | | ✓ |
| | SLP-2FALME | ✓ | ✓ | ✓ |
| Corner Panel | PAR-SF9FA-E | ✓ | | |
| | PAC-SF1ME-E | | ✓ | |