

AIR CONDITIONING SYSTEMS

CITY MULTI



CM15ASW-A

Air conditioning is an ideal way of controlling the temperature, movement and cleanliness of air inside any building, large or small. With today's buildings being so well insulated and increasingly full of electronic equipment, the need for effective climate control is greater than ever. Not only does it cool in the summer months, but air conditioning can also heat, doing away with the need for separate heating systems altogether. More and more people today are enjoying the benefits of comfortable working and living environments made possible with air conditioning.

Our Latest Technologies

VR^F system

VRF stands for Variable Refrigerant Flow.

A VRF air conditioning system modulates the flow of refrigerant depending upon the capacity requirements of the building. In its simplest form, a VRF system comprises an air-cooled outdoor unit and a series of indoor units that regulate the air temperature inside an internal space.

Inverter driven technology

At Mitsubishi Electric we strive to continually meet the increasing demands of our customers, being the first in the industry to offer highly advanced 'inverter driven' systems. Using inverter technology our systems produce just the right amount of output to match the exact requirement of any building. These systems work so efficiently that they don't waste valuable energy by over-heating or over-cooling, resulting in greatly reduced running costs. Alternative systems that may appear cheaper, can often cost substantially more to run, making us the most cost effective choice all round.

Intelligent Power Module (IPM) technology

The CITY MULTI range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology, highly efficient operation is possible with compact units closely matching building requirements.

R410A refrigerant

As scientific evidence points to man-made chemicals for the damage caused to the ozone layer, we only use chlorine-free refrigerants that are safe with zero ODP (Ozone Depletion Potential). Accordingly, our systems require less energy to run, and have a significantly lower indirect global warming potential. In short, we produce the most efficient equipment possible, while helping to protect the environment.

Unsurpassed air conditioning from Mitsubishi Electric

Known the world over, Mitsubishi Electric is a trusted household name associated with a variety of products and services. Founded in 1920, the company known today as Mitsubishi Electric, quickly rose to the forefront of the air conditioning industry - a position we still enjoy today. We pride ourselves on offering some of the most energy efficient systems available on the market.

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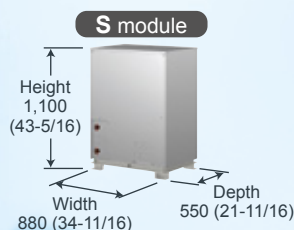
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The New PQHY/PQRY Series

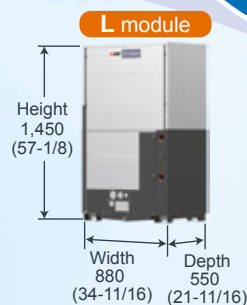
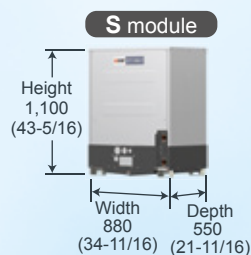
Increased capacities of single-module units and R2 units

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

Conventional model



New model



mm (in.)

<WY series>

Newly available single-module units

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

<WR2 series>

Newly available single-module units

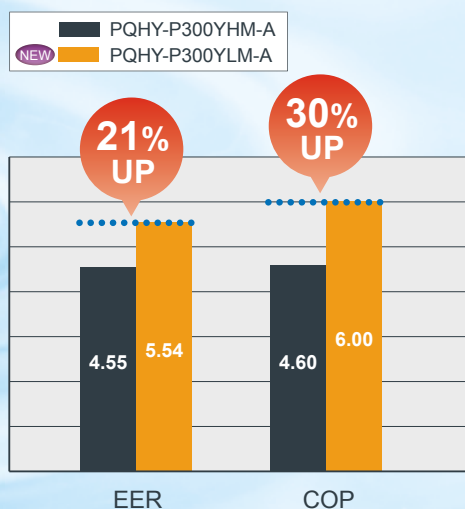
Increased capacities up to P900

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

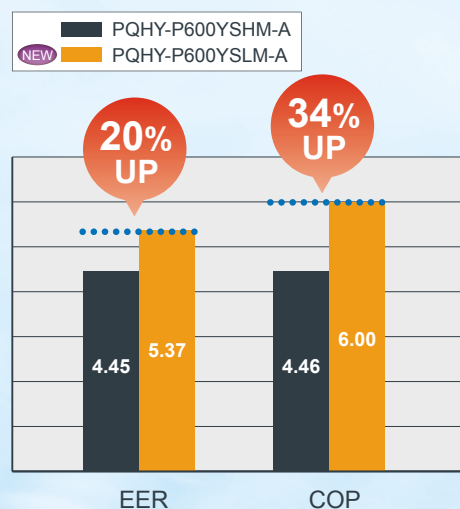
Improved EER and COP

Greatly improved EER and COP as compared to the previously available models

Comparisons of new and old single-module P300 units



Comparisons of new and old combination-module P600 units

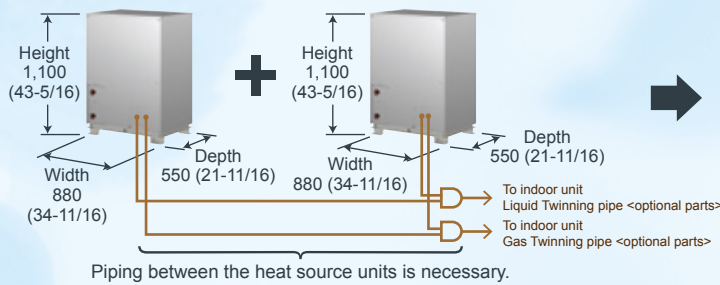


Advantages of increased capacity of single-module units

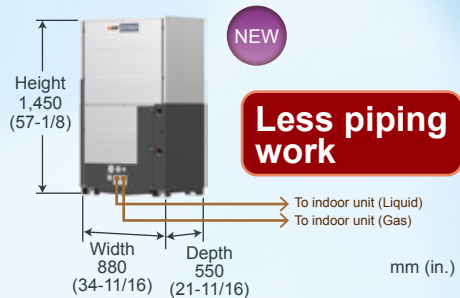
Reduced piping work.

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

■ P400YSHM (WY/WR2 series)



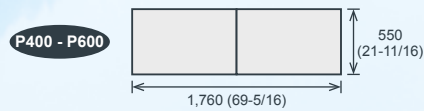
■ P400YLM (WY/WR2 series)



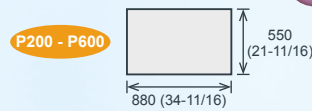
Reduced footprint

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

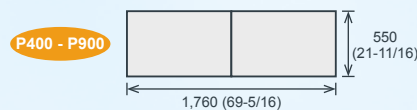
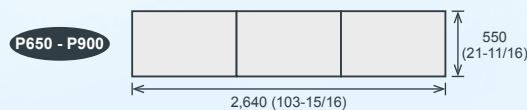
■ PQHY-P YSHM-A



■ PQHY-P Y(S)LM-A



50% reduction

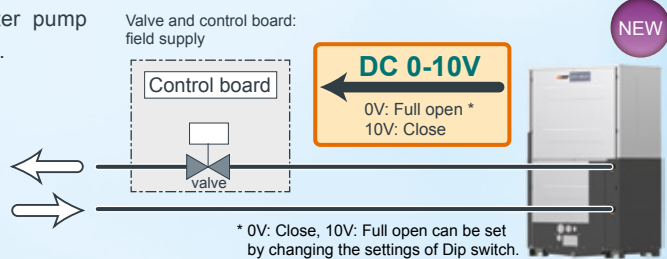


33% reduction

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

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

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



Weight saving

The reduction in weight leads to easy transportation and installation.

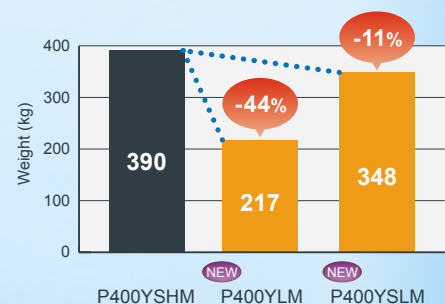
Unit : kg [lbs]

		P200	P250	P300	P350	P400	P450	P500	P550
PQHY	Y(S)HM	195 [430]	195 [430]	195 [430]	-	390 [860]	390 [860]	390 [860]	390 [860]
	Y(S)LM	174 [384]	174 [384]	174 [384]	217 [479]	217 [479] *1	217 [479] *1	217 [479] *1	246 [543] *1
PQRY	Y(S)HM	181[400]	181[400]	181[400]	-	362 [800]	362 [800]	362 [800]	362 [800]
	Y(S)LM	172 [380]	172 [380]	172 [380]	216 [477]	216 [477] *1	216 [477] *1	216 [477] *1	246 [543] *1

		P600	P700	P750	P800	P850	P900
PQHY	Y(S)HM	390 [860]	585 [1290]	585 [1290]	585 [1290]	585 [1290]	585 [1290]
	Y(S)LM	246 [543] *1	348 [768] *2	434 [958]	434 [958]	434 [958]	434 [958]
PQRY	Y(S)HM	362 [800]	-	-	-	-	-
	Y(S)LM	246 [543] *1	344 [760] *2	432 [954]	432 [954]	432 [954]	432 [954]

*1: Single module

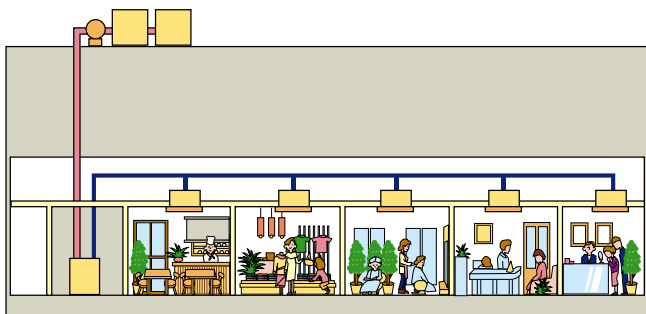
*2: Combination module





Water Cooled CITY MULTI Benefits

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



Water cooled systems can be used even in buildings that are taller than 50m(164ft) by running a main water pipe through each floor.

Any heat source system that can supply heat source water between 10°C~45°C(50°F~113°F) can be used.

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

It is suggested that Water-Cooled systems are used in the buildings in which there are heating and cooling needs as follows.

- **Buildings that require all year cooling**
Example,
 - Tenant buildings in which kitchens and offices exist together
 - Buildings in which equipment rooms and offices exist together
- **Buildings in which there are large room temperature differences between sunny and unsunny rooms**
- **Hotels in which there are a lot of individual operation needs**

Energy Saving Technology

What is Water-Cooled?

>A unique offering from Mitsubishi Electric

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

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



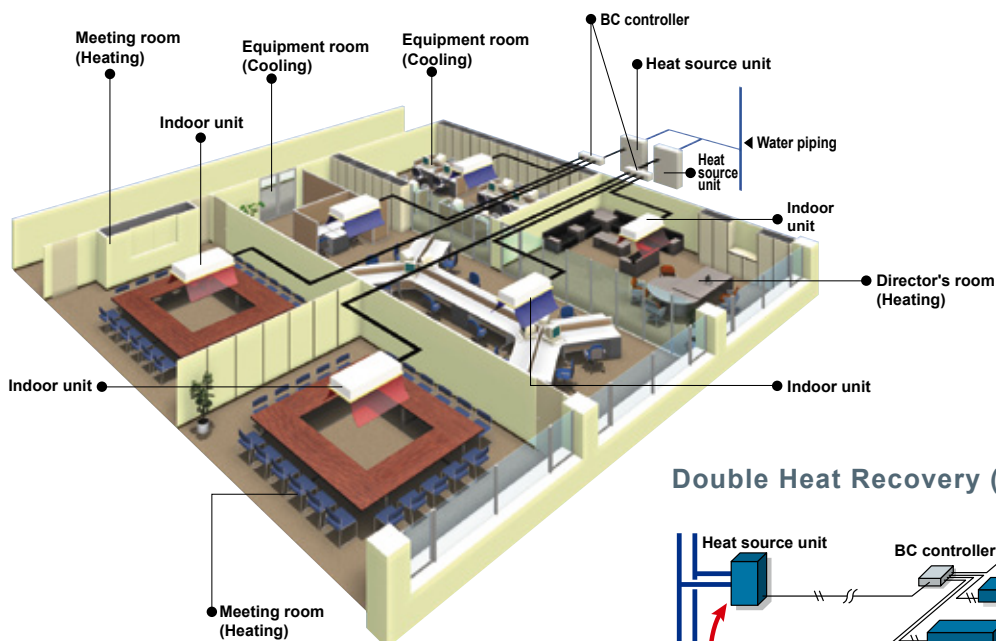
WR2(Heat Recovery Type)

Mitsubishi Electric now offers double heat recovery operation.

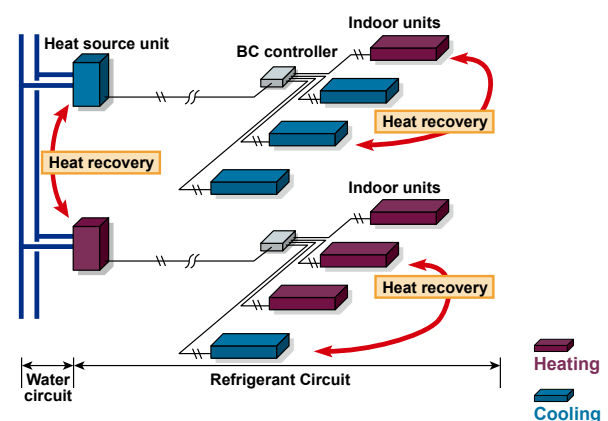
The first heat recovery is within the refrigerant system. Simultaneous cooling and heating operation is available with heat recovery performed between indoor units.

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

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



Double Heat Recovery (WR2)



PURY-P YLM-A1

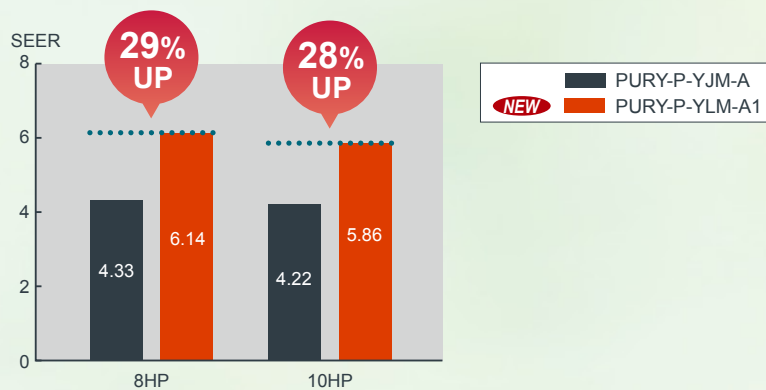
Energy Saving

Lowest power consumption achieves industry-leading energy efficiency.

The new YLM series features various advanced technologies including the world-first^{*1} flat-tube heat exchangers, optimum distribution of refrigerant, high efficiency compressor and DC fan motors.

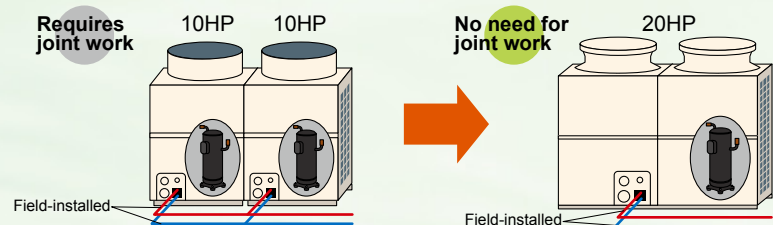


■ Comparison of SEER (between PURY-P-YJM-A and PURY-P-YLM-A1)



Single module up 20 HP

Capable of covering up to 20 HP with a single module and a single compressor. Reduced piping work.

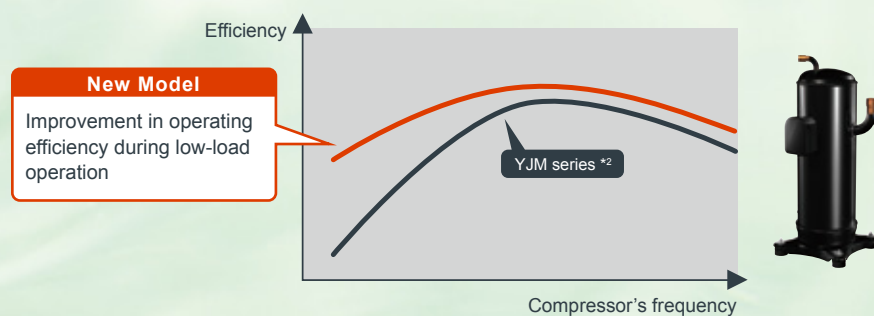


New Technology

Equipped with High Efficiency Compressor

Optimizing the capacity of the scroll compressor and modifying the winding of the compressor motor have led to the improvement in operating efficiency during low-load operation that can occur often in actual use.

■ Relationship between Compressor's Frequency and Efficiency



*1: As of October 2013 (according to our own survey); for VRF systems

*2: CITY MULTI series PURY-P-Y(S)JM-A

Low Noise Levels New Fan Design

CITY MULTI VRF systems led the introduction of larger single fan motors some ten years ago, achieving substantially lower noise levels over multiple designs.

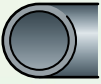



Continuing the development in the areas of blade shape and weight, Mitsubishi Electric have managed to achieve even higher performance and lower noise levels. To reduce noise levels further and comply with inner city residential noise regulations, all outdoor units include low noise mode. This function works by lowering the fan speed and compressor frequency proportionally with reduction in demand.



The compressor compartment is sealed by metal panels to attain low noise levels in all directions.

R410A Pipe Sizing

As R410A has a higher specific heat capacity than R22, the pipework is smaller. This means the pipe itself is cheaper, easier to install and less riser space is required within the building.

Conventional		CITY MULTI R410A	
			
Gas piping	Liquid piping	Gas piping	Liquid piping
ø28.58 (ø1-1/8)	ø12.7 (ø1/2)	ø22.2 (ø7/8)	ø9.52 (ø3/8)

mm (in.)

Based on 10HP model

Blue Fin Treatment

The anti-corrosion Blue Fin treatment of the heat exchanger is especially effective in urban environments where the traffic pollutions can damage the aluminum fins reducing the capacity and life expectancy of the unit. All CITY MULTI R410A outdoor units have been treated with Blue Fin.



*Standard: Anti-corrosion Blue Fin treatment & copper tube.
BS type (optional): salt-resistant cross fin & copper tube.

60Pa High Static Pressure as standard

R2 series correspond to high static pressure of 60Pa, ideal and flexible for any type of application.

System Check

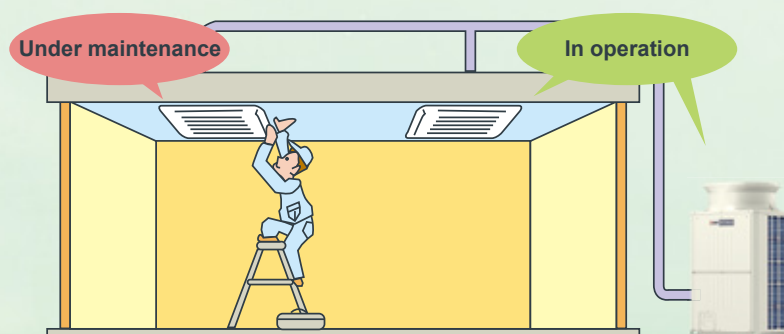
Ensuring simple and easy maintenance, system tests are available to check wiring, sensors and the refrigerant amount.

Easy Maintenance

Even when one of the indoor units in the system is under maintenance, the other indoor unit can still operate.

* Not applicable to all situations.

* Be sure to turn off the power to the indoor unit when repairing or servicing the unit.

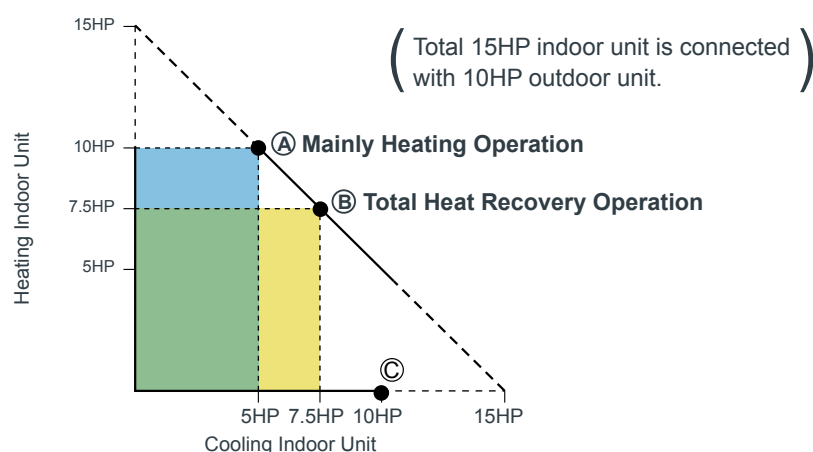


Affordable & Effective

air conditioning you can rely on

By the heat recovery system, the more frequently cooling and heating simultaneous operation is carried out, the higher energy-saving effect becomes.

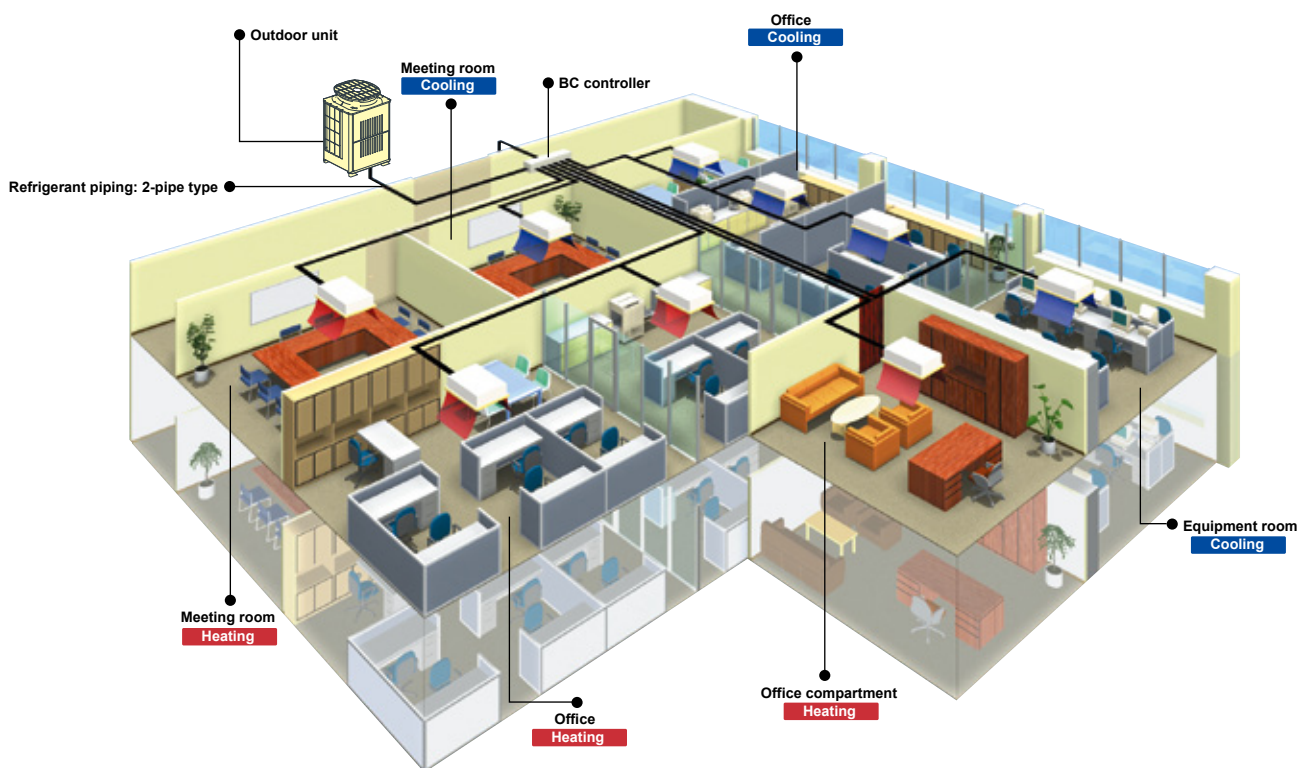
Operation Pattern of CITY MULTI *R2* System



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

Why Heat Recovery?

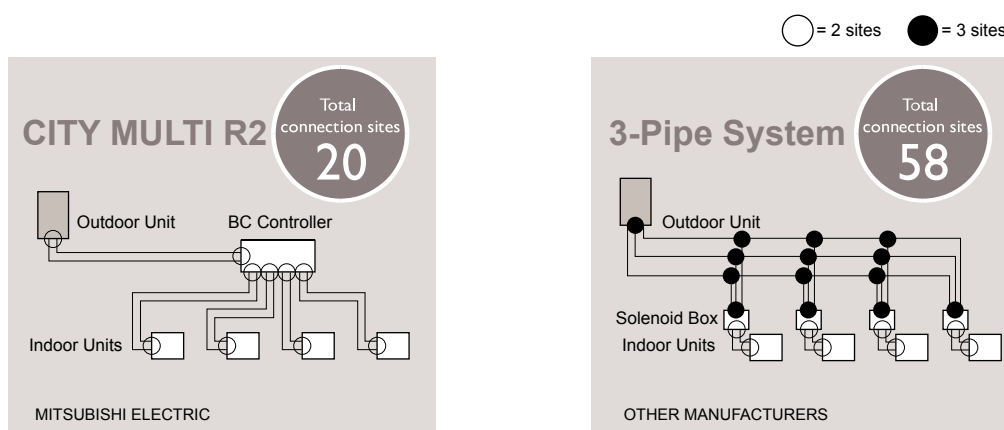
Flexibility and efficiency are key factors when selecting a heat recovery system. For example, while a heat pump system is adequate for a large open-plan office, an office that has a more partitioned structure will require to simultaneously heat or cool different sections of the office according to each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





“2-pipe” System Provides Better Efficiency and Performance

Comparison Example of Piping Connection Sites



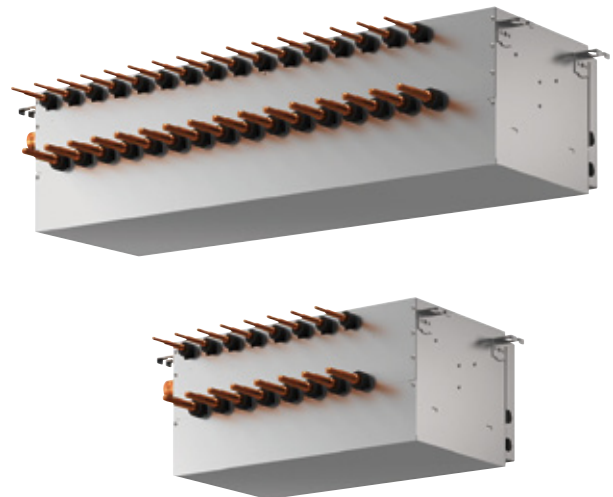
The World's First and Only "2-pipe" System

How does the R2/WR2 Heat Recovery System Operate on 2-Pipe's?

The secret of CITY MULTI heat recovery systems lies in the

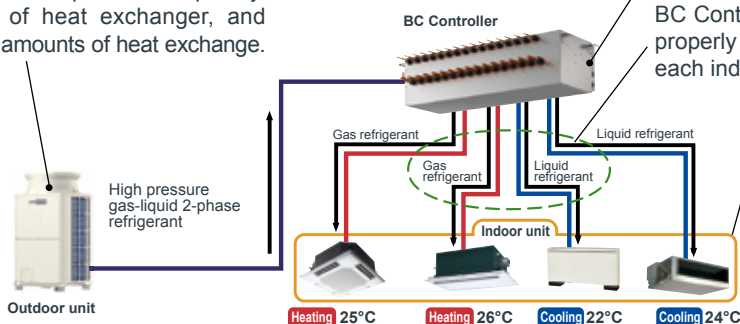
BC Controller

The BC Controller houses a liquid/gas separator, allowing the outdoor unit to deliver a mixture (2-phase) of hot gas for heating and liquid 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

High pressure and low pressure decides the compressor frequency, the mode of heat exchanger, and control the amounts of heat exchange.



2 R2/WR2 Refrigerant Circuit

Gas-liquid 2-phase refrigerant from outdoor unit into gas refrigerant and liquid refrigerant is divided by gas-liquid separator in BC Controller.

BC Controller divides refrigerant to each indoor unit properly in compliance with the operation mode of each indoor unit.

3

Adjust the refrigerant flow by temperature difference between inlet and outlet.

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

Heating=gas refrigerant
Cooling=liquid refrigerant











O Outdoor Unit

- **Water Cooled Heat Pump Series (WY)**
- **Water Cooled Heat Recovery Series (WR2)**
- **Heat Recovery Series (R2)**



Wide Selection of Outdoor Units

System	Type	Model name	HP				
			Model	P200	P250	P300	P350
Water Cooled	Heat Pump	WY series <small>Page21 - Page27</small> PQHY-P YLM-A 	S	8	10	12	
			L				14
		PQHY-P YSLM-A 	S				
			L				
	Heat Recovery	WR2 series <small>Page28 - Page34</small> PQRY-P YLM-A 	S	8	10	12	
			L				14
		PQRY-P YSLM-A 	S				
			L				
Air Cooled	Heat Recovery	R2 series <small>Page35 - Page40</small> PURY-P YLM-A1(-BS) 	S	8	10		
			L			12	14
			XL				
		PURY-P YSLM-A1(-BS) 	S				
			L				
			XL				

*1. Indicates S, L, XL modules

*2. The circled numbers in the table indicate the horse power, and the combination of S, L, and XL modules.



	16	18	20	22	24	26	28	30	32	34	36
	P400	P450	P500	P550	P600	P650	P700	P750	P800	P850	P900
	16	18	20	22	24						
	8 8	8 10	10 10	10 12	12 12						
							14 14	14 16	16 16	16 18	18 18
	16	18	20	22	24						
	8 8	8 10	10 10	10 12	12 12						
							14 14	14 16	16 16	16 18	18 18
	16										
		18	20								
	8 8	8 10	10 10	10							
				12	12 12	12 14	14 14	14 16	16 16	16	
										18	18 18

Water Cooled Series

Cooling or Heating

WY series — PQHY-P Y(S)LM-A

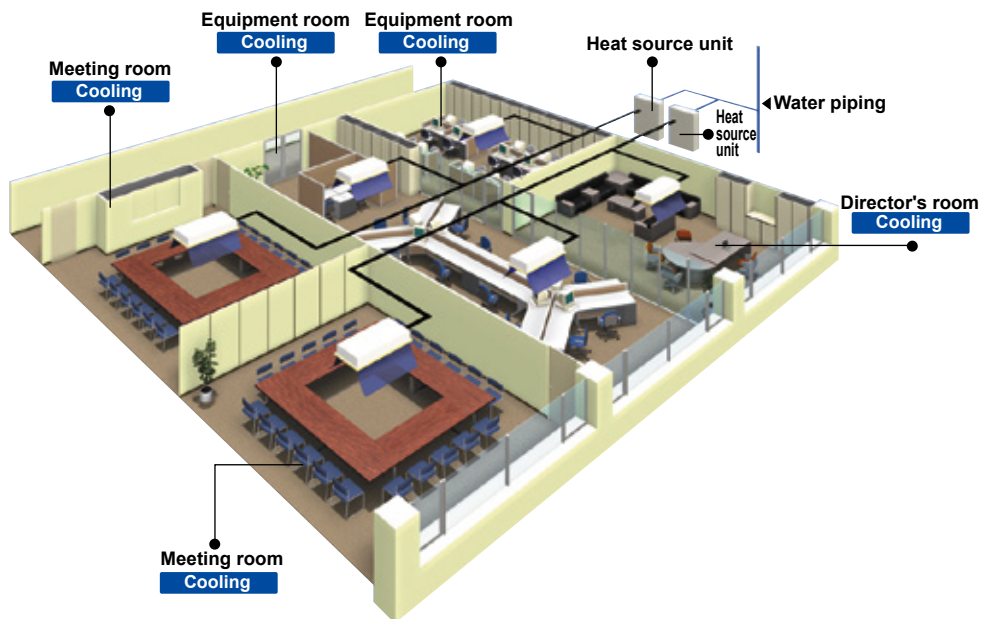
WR2 series — PQRV-P Y(S)LM-A

[WY (Heat Pump) series]

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 no limitation on building size. Depending on capacity, up to 15 to 50 indoor units can be connected to a single condensing unit with individualized and/or centralized control. The two-pipe system allows all CITY MULTI solutions to switch between cooling and heating while maintaining a constant indoor temperature.

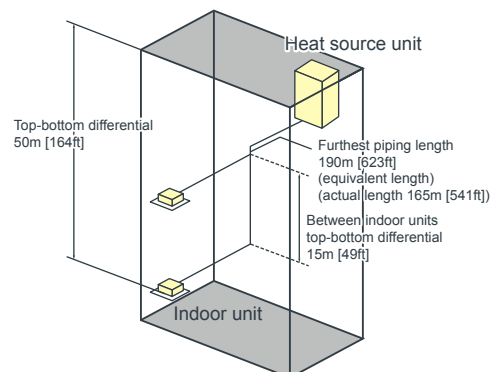
Installation image (WY series)



System Pipe Lengths

[P200-P900 (WY series)]

Refrigerant Piping Lengths		Maximum meters [Feet]
Total length	.....	300-500 [984-1640]
Maximum allowable length	.....	165 (190 equivalent) [541(623)]
Farthest indoor from first branch	.....	40 [131]
Vertical differentials between units		Maximum meters [Feet]
Indoor/heat source (heat source higher)	.....	50 [164]
Indoor/heat source (heat source lower)	.....	40 [131]
Indoor/indoor	.....	15 [49]



Outdoor Unit

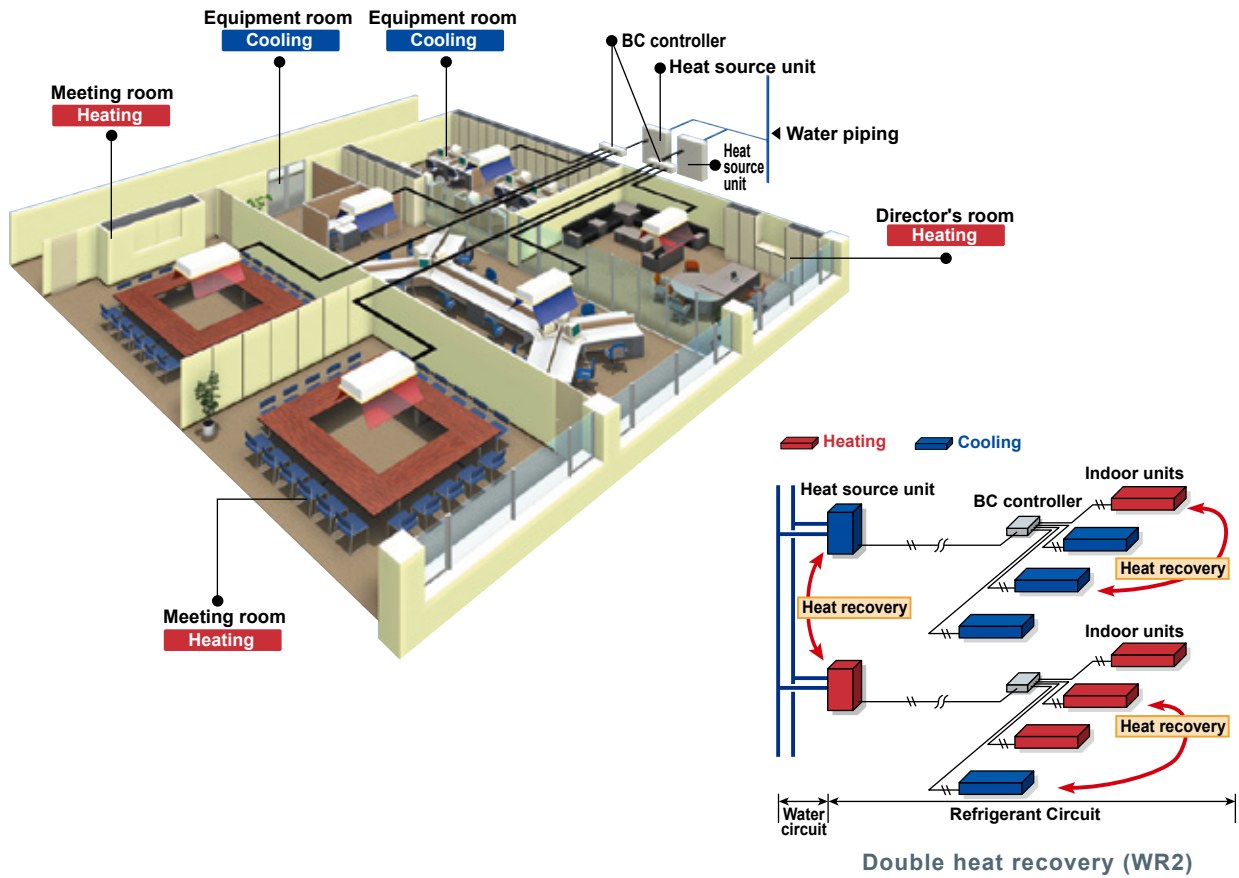
[WR2 (Heat Recovery) series]

Advanced water heat source unit enjoying the benefits of R2 series

The CITY MULTI WR2 series provides all of the advantages of the R2 series with the added advantages of a water heat source system, making it suitable for wider range of applications in high rises, frigid climates, coastal areas, etc.

Not only does it produce heat recovery from the indoor units on the same 2-pipe refrigerant circuit, it also produces heat recovery via the water circuit between heat source units, making it a very economical system.

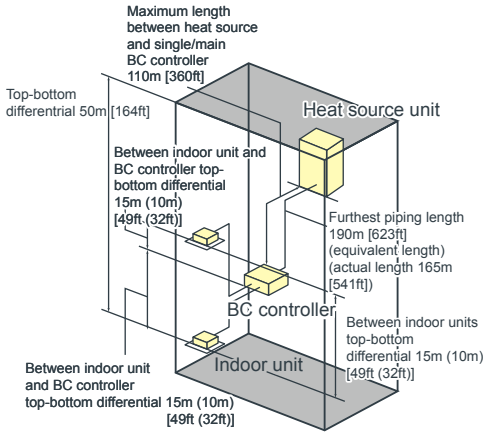
Installation image (WR2 series)



System Pipe Lengths

[P200-P900 (WR2 series)]

Refrigerant Piping Lengths		Maximum meters [Feet]
Total length.....	550-750 [1,804-2,460]	
Maximum allowable length	165 (190 equivalent)	
	[541 (623)]	
Maximum length between heat source and single/main BC controller.....	110 [360]	
*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	40-60 [131-196]	
Vertical differentials between units		Maximum meters [Feet]
Indoor/ heat source (heat source higher)	50 [164]	
Indoor/ heat source (heat source lower)	40 [131]	
Indoor/BC controller (single/main)	15 (10) [49 (32)]	
Indoor/indoor	15 (10) [49 (32)]	
Main BC Controller/Sub BC Controller	15 (10) [49 (32)]	



Outdoor Unit



R2 (Heat Recovery) series

Simultaneous Cooling and Heating

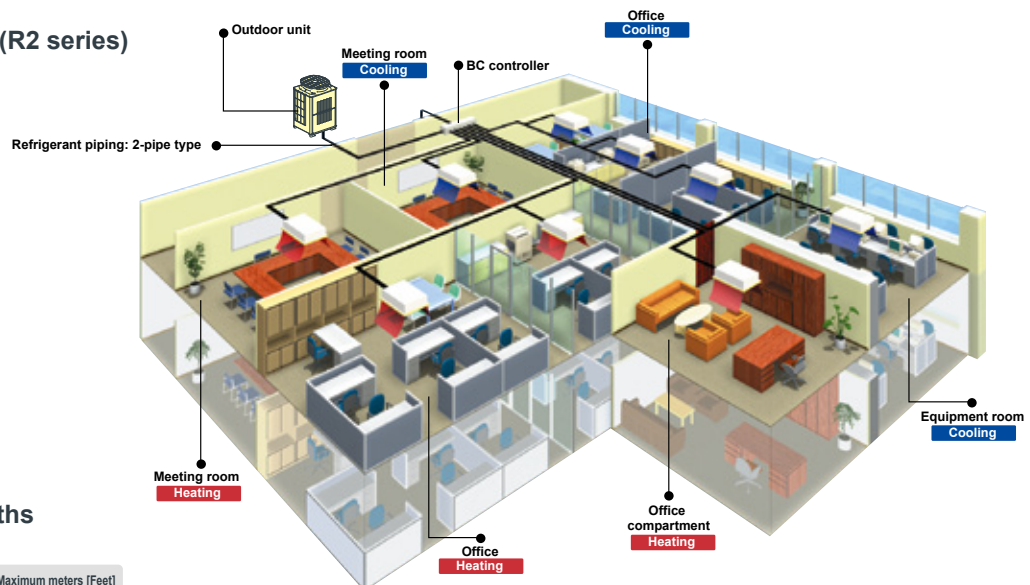
R2 series — **PURY-P YLM-A1(-BS)**
PURY-P YSLM-A1(-BS)

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

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 virtually no energy wasted by being expelled outdoors. Depending on capacity, up to 50 indoor units can be connected with up to 150% connected capacity

Installation image (R2 series)



System Pipe Lengths

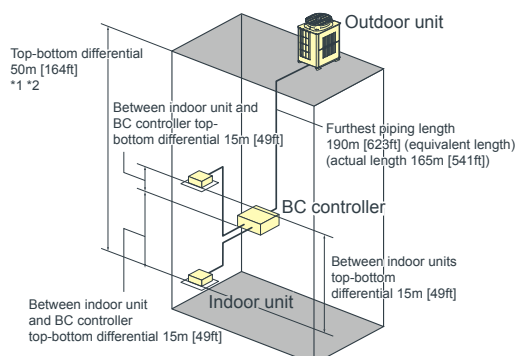
[8-36HP (R2 series)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length.....	550 [1,804]
(P600, 650 only)	
Total length.....	700 [2,296]
(P700, 750, 800, 850, 900 only)	
Maximum allowable length.....	165 (190 equivalent)
	[541 (623)]

Maximum length between outdoor and single/main BC controller..... 110 [360]
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller.

Maximum length between single/main BC controller and indoor..... 40-60 [131-196]

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



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

*2 Depending on the model and installation conditions, top-bottom differential 90m [295ft] (o/u above) and 60m [196ft] (o/u below) is available. For more detailed information, please contact your nearest sales office or distributor.

Outdoor Unit

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



► Specifications

Model			PQHY-P200YLM-A	PQHY-P250YLM-A	PQHY-P300YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5
		kcal / h	20,000	25,000	30,000
	*1	BTU / h	76,400	95,500	114,300
		Power input	kW	3.71	4.90	6.04
		Current input	A	6.2-5.9-5.7	8.2-7.8-7.5	10.1-9.6-9.3
	EER	kW / kW	6.03	5.71	5.54
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5
		kcal / h	21,500	27,100	32,300
	*2	BTU / h	85,300	107,500	128,000
		Power input	kW	3.97	5.08	6.25
		Current input	A	6.7-6.3-6.1	8.5-8.1-7.8	10.5-10.0-9.6
	COP	kW / kW	6.29	6.20	6.00
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/1~17	P15~P250/1~21	P15~P250/1~26
Sound pressure level (measured in anechoic room)	dB <A>		46	48	54
Refrigerant piping diameter	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)
	Gas pipe	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Circulating water	Water flow rate	m³ / h	5.76	5.76	5.76
		L/min	96	96	96
	Pressure drop	cfm	3.4	3.4	3.4
		kPa	24	24	24
	Operating volume range	m³ / h	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	4.8	6.2	7.7
	Case heater	kW	—	—	—
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD	mm		1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550
	in.		43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.) Compressor		Over-heat protection, Over-current protection Over-heat protection	Over-heat protection, Over-current protection Over-heat protection	Over-heat protection, Over-current protection Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
Net weight	kg (lbs)		174 (384)	174 (384)	174 (384)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



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



► Specifications

Model			PQHY-P350YLM-A	PQHY-P400YLM-A	PQHY-P450YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	40.0	45.0	50.0
		kcal / h	35,000	40,000	45,000
		BTU / h	136,500	153,500	170,600
	Power input	kW	7.14	8.03	9.29
	Current input	A	12.0-11.4-11.0	13.5-12.8-12.4	15.6-14.8-14.3
	EER	kW / kW	5.60	5.60	5.38
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	45.0	50.0	56.0
		kcal / h	40,000	45,000	50,000
		BTU / h	153,500	170,600	191,100
	Power input	kW	7.53	8.37	9.79
	Current input	A	12.7-12.0-11.6	14.1-13.4-12.9	16.5-15.7-15.1
	COP	kW / kW	5.97	5.97	5.72
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/1~30	P15~P250/1~34	P15~P250/1~39
Sound pressure level (measured in anechoic room)		dB <A>	52	52	54
Refrigerant piping diameter	Liquid pipe		12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe		28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m³ / h	7.20	7.20	7.20
		L/min	120	120	120
		cfm	4.2	4.2	4.2
	Pressure drop		kPa	44	44
	Operating volume range		m³ / h	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	9.5	10.7	11.6
	Case heater	kW	—	—	—
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant Type x original charge			R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight		kg (lbs)	217 (479)	217 (479)	217 (479)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

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



► Specifications

Model			PQHY-P500YLM-A	PQHY-P550YLM-A	PQHY-P600YLM-A
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	56.0	63.0	69.0
		kcal / h	50,000	55,000	60,000
	*1	BTU / h	191,100	215,000	235,400
		Power input	kW	11.17	12.54	14.49
		Current input	A	18.8-17.9-17.2	21.1-20.1-19.3	24.4-23.2-22.3
	EER	kW / kW	5.01	5.02	4.76
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2	kW	63.0	69.0	76.5
		kcal / h	55,000	60,000	65,800
	*2	BTU / h	215,000	235,400	261,000
		Power input	kW	11.43	12.27	14.51
		Current input	A	19.2-18.3-17.6	20.7-19.6-18.9	24.4-23.2-22.4
	COP	kW / kW	5.51	5.62	5.27
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity	50~130% of heat source unit capacity	50~130% of heat source unit capacity
	Model / Quantity		P15~P250/1~43	P15~P250/2~47	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	54	56.5	56.5
Refrigerant piping diameter	Liquid pipe		15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe		28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m³ / h	7.20	11.52	11.52
		L/min	120	192	192
	Pressure drop	cfm	4.2	6.8	6.8
		kPa	44	45	45
	Operating volume range	m³ / h	4.5 ~ 11.6	6.0 ~ 14.4	6.0 ~ 14.4
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output		13.0	15.0	16.1
	Case heater		kW	—	0.045 (240 V)	0.045 (240 V)
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets
External dimension HxWxD		mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant Type x original charge			R410A x 6.0 kg (14 lbs)	R410A x 11.7 kg (26 lbs)	R410A x 11.7 kg (26 lbs)
Net weight		kg (lbs)	217 (479)	246 (543)	246 (543)
Heat exchanger			plate type	plate type	plate type
	Water volume in plate	L	5.0	10.0	10.0
	Water pressure Max.	MPa	2.0	2.0	2.0
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit



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



► Specifications

Model			PQHY-P400YSLM-A		PQHY-P450YSLM-A		PQHY-P500YSLM-A					
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz					
Cooling capacity (Nominal)	*1	kW	45.0		50.0		56.0					
		kcal / h	40,000		45,000		50,000					
	*1	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 (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)					
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)					
Heating capacity (Nominal)	*2	kW	50.0		56.0		63.0					
		kcal / h	45,000		50,000		55,000					
	*2	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 (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)					
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)					
Indoor unit connectable	Total capacity	50~130% of heat source unit capacity		50~130% of heat source unit capacity		50~130% of heat source unit capacity						
	Model / Quantity	P15~P250/1~34		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		15.88 (5/8) Brazed		15.88 (5/8) Brazed					
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed					
Set Model												
Model			PQHY-P200YLM-A		PQHY-P200YLM-A		PQHY-P250YLM-A		PQHY-P250YLM-A			
Circulating water	Water flow rate	m³ / h	5.76 + 5.76		5.76 + 5.76		5.76 + 5.76		5.76 + 5.76			
		L/min	96 + 96		96 + 96		96 + 96		96 + 96			
		cfm	3.4 + 3.4		3.4 + 3.4		3.4 + 3.4		3.4 + 3.4			
	Pressure drop	kPa	24	24	24	24	24	24				
	Operating volume range	m³ / h	3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2			
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor			
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter				
	Motor output		kW	4.8	4.8	6.2	4.8	6.2	6.2			
	Case heater		kW	—	—	—	—	—	—			
External finish			Galvanized steel sheets		Galvanized steel sheets		Galvanized steel sheets		Galvanized steel sheets			
External dimension HxWxD		mm	1,100 x 880 x 550		1,100 x 880 x 550		1,100 x 880 x 550		1,100 x 880 x 550			
		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection		Over-heat protection		Over-heat protection		Over-heat protection			
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)			
Net weight		kg (lbs)	174 (384)		174 (384)		174 (384)		174 (384)			
Heat exchanger			plate type		plate type		plate type		plate type			
			Water volume in plate	L	5.0		5.0		5.0		5.0	
			Water pressure Max.	MPa	2.0		2.0		2.0		2.0	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G		Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G		Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G		Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G			

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

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

► Specifications



Model			PQHY-P550YSLM-A		PQHY-P600YSLM-A		PQHY-P700YSLM-A							
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz							
Cooling capacity (Nominal)	*1	kW	63.0		69.0		80.0							
		kcal / h	55,000		60,000		68,800							
	*1	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 (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)							
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)							
Heating capacity (Nominal)	*2	kW	69.0		76.5		88.0							
		kcal / h	60,000		65,800		75,700							
	*2	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 (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)							
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)							
Indoor unit connectable	Total capacity	50~130% of heat source unit capacity		50~130% of heat source unit capacity		50~130% of heat source unit capacity								
	Model / Quantity	P15~P250/2~47		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		15.88 (5/8) Brazed		19.05 (3/4) Brazed							
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		34.93 (1-3/8) Brazed							
Set Model														
Model			PQHY-P300YLM-A		PQHY-P250YLM-A		PQHY-P300YLM-A		PQHY-P300YLM-A		PQHY-P350YLM-A		PQHY-P350YLM-A	
Circulating water	Water flow rate	m³ / h	5.76 + 5.76		5.76 + 5.76		5.76 + 5.76		7.20 + 7.20		7.20 + 7.20		7.20 + 7.20	
		L/min	96 + 96		96 + 96		96 + 96		120 + 120		120 + 120		120 + 120	
		cfm	3.4 + 3.4		3.4 + 3.4		3.4 + 3.4		4.2 + 4.2		4.2 + 4.2		4.2 + 4.2	
	Pressure drop	kPa	24	24	24	24	24	44	44	44	44	44	44	
	Operating volume range	m³ / h	3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter		Inverter		Inverter		Inverter		Inverter	
	Motor output		kW	7.7	6.2	7.7	7.7	7.7	9.5	9.5	9.5	9.5	9.5	9.5
	Case heater		kW	—		—		—		—		—		—
External finish			Galvanized steel sheets				Galvanized steel sheets				Galvanized steel sheets			
External dimension HxWxD		mm	1,100 x 880 x 550		1,100 x 880 x 550		1,100 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550	
		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection				Over-heat protection, Over-current protection				Over-heat protection, Over-current protection			
	Compressor		Over-heat protection				Over-heat protection				Over-heat protection			
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 6.0 kg (14 lbs)		R410A x 6.0 kg (14 lbs)	
Net weight		kg (lbs)	174 (384)		174 (384)		174 (384)		174 (384)		217 (479)		217 (479)	
Heat exchanger			plate type		plate type		plate type		plate type		plate type		plate type	
			Water volume in plate	L	5.0		5.0		5.0		5.0		5.0	
			Water pressure Max.	MPa	2.0		2.0		2.0		2.0		2.0	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G				Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G				Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G			

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit



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



► Specifications

Model			PQHY-P750YSLM-A		PQHY-P800YSLM-A						
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz						
Cooling capacity (Nominal)	*1	kW	85.0		90.0						
		kcal / h	73,100		77,400						
	*1	BTU / h	290,000		307,100						
		Power input	kW	15.64		16.57					
		Current input	A	26.4-25.0-24.1		27.9-26.5-25.6					
	EER	kW / kW	5.43		5.43						
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)						
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)						
Heating capacity (Nominal)	*2	kW	95.0		100.0						
		kcal / h	81,700		86,000						
	*2	BTU / h	324,100		341,200						
		Power input	kW	15.90		16.75					
		Current input	A	26.8-25.4-24.5		28.2-26.8-25.8					
	COP	kW / kW	5.97		5.97						
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)						
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)						
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity		50~130% of heat source unit capacity						
	Model / Quantity		P15~P250/2~50		P15~P250/2~50						
Sound pressure level (measured in anechoic room)		dB <A>	55		55						
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed						
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed		34.93 (1-3/8) Brazed						
Set Model											
Model			PQHY-P400YLM-A		PQHY-P350YLM-A		PQHY-P400YLM-A		PQHY-P400YLM-A		
Circulating water	Water flow rate	m ³ / h	7.20 + 7.20		7.20 + 7.20		7.20 + 7.20		7.20 + 7.20		
		L/min	120 + 120		120 + 120		120 + 120		120 + 120		
		cfm	4.2 + 4.2		4.2 + 4.2		4.2 + 4.2		4.2 + 4.2		
	Pressure drop	kPa	44		44		44		44		
	Operating volume range	m ³ / h	4.5 + 4.5 ~ 11.6 + 11.6				4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type		Inverter scroll hermetic compressor				Inverter scroll hermetic compressor				
	Starting method		Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	10.7		9.5		10.7		10.7		
	Case heater	kW	—		—		—		—		
External finish			Galvanized steel sheets		Galvanized steel sheets		Galvanized steel sheets		Galvanized steel sheets		
External dimension HxWxD		mm	1,450 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550		
		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection				Over-heat protection, Over-current protection				
	Compressor		Over-heat protection		Over-heat protection		Over-heat protection		Over-heat protection		
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)		R410A x 6.0 kg (14 lbs)		R410A x 6.0 kg (14 lbs)		R410A x 6.0 kg (14 lbs)		
Net weight	kg (lbs)		217 (479)		217 (479)		217 (479)		217 (479)		
Heat exchanger			plate type		plate type		plate type		plate type		
		Water volume in plate	L	5.0		5.0		5.0		5.0	
		Water pressure Max.	MPa	2.0		2.0		2.0		2.0	
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G				Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G				

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

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



► Specifications

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

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

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



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



► Specifications

Model			PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A	
Power source			3-phase 4-wire 380~400~415 V 50/60 Hz	3-phase 4-wire 380~400~415 V 50/60 Hz	3-phase 4-wire 380~400~415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5	
		kcal / h	20,000	25,000	30,000	
		BTU / h	76,400	95,500	114,300	
	Power input	kW	3.71	4.90	6.04	
		Current input	A	6.2-5.9-5.7	8.2-7.8-7.5	10.1-9.6-9.3
		EER	kW / kW	6.03	5.71	5.54
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5	
		kcal / h	21,500	27,100	32,300	
		BTU / h	85,300	107,500	128,000	
	Power input	kW	3.97	5.08	6.25	
		Current input	A	6.7-6.3-6.1	8.5-8.1-7.8	10.5-10.0-9.6
		COP	kW / kW	6.29	6.20	6.00
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	
	Circulating water	°C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity	
	Model / Quantity		P15~P250/1~20	P15~P250/1~25	P15~P250/1~30	
Sound pressure level (measured in anechoic room)		dB <A>	46	48	54	
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	
	Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	
Circulating water	Water flow rate	m³ / h	5.76	5.76	5.76	
		L/min	96	96	96	
		cfm	3.4	3.4	3.4	
	Pressure drop	kPa	24	24	24	
		Operating volume range	m³ / h	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	
	Motor output	kW	4.8	6.2	7.7	
	Case heater	kW	—	—	—	
External finish			Galvanized steel sheets	Galvanized steel sheets	Galvanized steel sheets	
External dimension HxWxD		mm	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550	
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	Over-heat protection	
Refrigerant		Type x original charge	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	
Net weight		kg (lbs)	172 (380)	172 (380)	172 (380)	
Heat exchanger			plate type	plate type	plate type	
			Water volume in plate	L	5.0	5.0
			Water pressure Max.	MPa	2.0	2.0
Optional parts			Joint: CMY-Y102SSLS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SSLS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SSLS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

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



► Specifications

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

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



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



► Specifications

Model	PQRY-P500YLM-A			PQRY-P550YLM-A			PQRY-P600YLM-A					
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz			3-phase 4-wire 380-400-415 V 50/60 Hz			3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling capacity (Nominal)	*1	kW	56.0			63.0			69.0			
		kcal / h	50,000			55,000			60,000			
	*1	BTU / h	191,100			215,000			235,400			
		Power input	kW	11.17			12.54			14.49		
			Current input	A			21.1-20.1-19.3			24.4-23.2-22.3		
		EER	kW / kW			5.01			5.02			
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)			15.0~24.0°C (59~75°F)			15.0~24.0°C (59~75°F)			
	Circulating water	°C	10.0~45.0°C (50~113°F)			10.0~45.0°C (50~113°F)			10.0~45.0°C (50~113°F)			
Heating capacity (Nominal)	*2	kW	63.0			69.0			76.5			
		kcal / h	55,000			60,000			65,800			
	*2	BTU / h	215,000			235,400			261,000			
		Power input	kW	11.43			12.27			14.51		
			Current input	A			20.7-19.6-18.9			24.4-23.2-22.4		
		COP	kW / kW			5.51			5.62			
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)			15.0~27.0°C (59~81°F)			15.0~27.0°C (59~81°F)			
	Circulating water	°C	10.0~45.0°C (50~113°F)			10.0~45.0°C (50~113°F)			10.0~45.0°C (50~113°F)			
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity			50~150% of heat source unit capacity			50~150% of heat source unit capacity			
	Model / Quantity		P15~P250/1~50			P15~P250/2~50			P15~P250/2~50			
Sound pressure level (measured in anechoic room)		dB <A>	54			56.5			56.5			
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed			22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)			22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)			
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed			28.58 (1-1/8) Brazed			34.93 (1-3/8) Brazed			
Circulating water	Water flow rate	m³ / h	7.20			11.52			11.52			
		L/min	120			192			192			
	Pressure drop	cfm	4.2			6.8			6.8			
		kPa	44			45			45			
		Operating volume range	m³ / h	4.5 ~ 11.6			6.0 ~ 14.4			6.0 ~ 14.4		
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor			Inverter scroll hermetic compressor			
	Starting method		Inverter			Inverter			Inverter			
	Motor output		kW			15.0			16.1			
	Case heater		kW			—			0.045 (240 V)			
External finish			Galvanized steel sheets			Galvanized steel sheets			Galvanized steel sheets			
External dimension HxWxD		mm	1,450 x 880 x 550			1,450 x 880 x 550			1,450 x 880 x 550			
		in.	57-1/8 x 34-11/16 x 21-11/16			57-1/8 x 34-11/16 x 21-11/16			57-1/8 x 34-11/16 x 21-11/16			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection			Over-heat protection, Over-current protection			
Compressor		Over-heat protection			Over-heat protection			Over-heat protection				
Refrigerant		Type x original charge		R410A x 6.0 kg (14 lbs)			R410A x 11.7 kg (26 lbs)			R410A x 11.7 kg (26 lbs)		
Net weight		kg (lbs)	216 (477)			246 (543)			246 (543)			
Heat exchanger			plate type			plate type			plate type			
	Water volume in plate	L	5.0			10.0			10.0			
	Water pressure Max.	MPa	2.0			2.0			2.0			
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

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



► Specifications

Model			PQRY-P400YSLM-A		PQRY-P450YSLM-A		PQRY-P500YSLM-A			
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling capacity (Nominal)	*1	kW	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 (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)			
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)			
Heating capacity (Nominal)	*2	kW	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 (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)			
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)			
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		50~150% of heat source unit capacity		50~150% of heat source unit capacity			
	Model / Quantity		P15~P250/1~40		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		22.2 (7/8) Brazed		22.2 (7/8) Brazed			
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed			
Set Model										
Model			PQRY-P200YLM-A		PQRY-P200YLM-A		PQRY-P250YLM-A		PQRY-P250YLM-A	
Circulating water	Water flow rate	m³ / h	5.76 + 5.76		5.76 + 5.76		5.76 + 5.76		5.76 + 5.76	
		L/min	96 + 96		96 + 96		96 + 96		96 + 96	
		cfm	3.4 + 3.4		3.4 + 3.4		3.4 + 3.4		3.4 + 3.4	
	Pressure drop	kPa	24	24	24	24	24	24		
	Operating volume range	m³ / h	3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter		Inverter		Inverter	
	Motor output	kW	4.8	4.8	6.2	4.8	6.2	6.2		
	Case heater	kW	—	—	—	—	—	—		
External finish			Galvanized steel sheets		Galvanized steel sheets		Galvanized steel sheets		Galvanized steel sheets	
External dimension HxWxD		mm	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550	1,100 x 880 x 550		
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)		
Net weight		kg (lbs)	172 (380)	172 (380)	172 (380)	172 (380)	172 (380)	172 (380)		
Heat exchanger			plate type		plate type		plate type		plate type	
			Water volume in plate	L	5.0	5.0	5.0	5.0	5.0	5.0
			Water pressure Max.	MPa	2.0	2.0	2.0	2.0	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1		Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1		Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit



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



► Specifications

Model			PQRY-P550YSLM-A		PQRY-P600YSLM-A		PQRY-P700YSLM-A							
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz							
Cooling capacity (Nominal)	*1	kW	63.0		69.0		80.0							
		kcal / h	55,000		60,000		68,800							
	*1	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 (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)							
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)							
Heating capacity (Nominal)	*2	kW	69.0		76.5		88.0							
		kcal / h	60,000		65,800		75,700							
	*2	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 (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)							
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)							
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		50~150% of heat source unit capacity		50~150% of heat source unit capacity							
	Model / Quantity		P15~P250/2~50		P15~P250/2~50		P15~P250/2~50							
Sound pressure level (measured in anechoic room)		dB <A>	55		57		55							
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		28.58 (1-1/8) Brazed							
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed		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	m³ / h	5.76 + 5.76				5.76 + 5.76				7.20 + 7.20			
		L/min	96 + 96				96 + 96				120 + 120			
		cfm	3.4 + 3.4				3.4 + 3.4				4.2 + 4.2			
	Pressure drop	kPa	24		24		24		24		44		44	
	Operating volume range	m³ / h	3.0 + 3.0 ~ 7.2 + 7.2				3.0 + 3.0 ~ 7.2 + 7.2				4.5 + 4.5 ~ 11.6 + 11.6			
Compressor	Type		Inverter scroll hermetic compressor				Inverter scroll hermetic compressor				Inverter scroll hermetic compressor			
	Starting method		Inverter		Inverter		Inverter		Inverter		Inverter		Inverter	
	Motor output	kW	7.7		6.2		7.7		7.7		9.5		9.5	
	Case heater	kW	—		—		—		—		—		—	
External finish			Galvanized steel sheets				Galvanized steel sheets				Galvanized steel sheets			
External dimension HxWxD		mm	1,100 x 880 x 550		1,100 x 880 x 550		1,100 x 880 x 550		1,100 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550	
		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection				Over-heat protection, Over-current protection				Over-heat protection, Over-current protection			
	Compressor		Over-heat protection		Over-heat protection		Over-heat protection		Over-heat protection		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 5.0 kg (12 lbs)		R410A x 6.0 kg (14 lbs)		R410A x 6.0 kg (14 lbs)	
Net weight		kg (lbs)	172 (380)		172 (380)		172 (380)		172 (380)		216 (477)		216 (477)	
Heat exchanger			plate type		plate type		plate type		plate type		plate type		plate type	
	Water volume in plate	L	5.0		5.0		5.0		5.0		5.0		5.0	
	Water pressure Max.	MPa	2.0		2.0		2.0		2.0		2.0		2.0	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1				Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1				Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

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



► Specifications

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

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

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



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



► Specifications

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

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

Notes:

*1,*2 Nominal conditions

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

*The ambient temperature of the heat source unit needs to be kept below 40°C D.B.

*The ambient relative humidity of the heat source unit needs to be kept below 80%.

*The heat source unit should not be installed at outdoor.

*Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

Outdoor Unit

OUTDOOR UNIT

R2 Series

PURY-P YLM-A1(-BS)



► Specifications

Model			PURY-P200YLM-A1 (-BS)	PURY-P250YLM-A1 (-BS)	PURY-P300YLM-A1 (-BS)	PURY-P350YLM-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5	40.0
	*1	BTU / h	76,400	95,500	114,300	136,500
	Power input	kW	5.29	6.98	9.10	11.76
	Current input	A	8.9-8.4-8.1	11.7-11.1-10.7	15.3-14.5-14.0	19.8-18.8-18.1
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		D.B.	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)
	Outdoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		D.B.	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5	45.0
	*2	BTU / h	85,300	107,500	128,000	153,500
	Power input	kW	5.49	7.32	9.37	11.59
	Current input	A	9.2-8.8-8.4	12.3-11.7-11.3	15.8-15.0-14.4	19.5-18.5-17.9
Temp. range of heating	Indoor	W.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		D.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
	Outdoor	W.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		D.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~150%	50~150% of outdoor unit capacity	50~150% of outdoor unit 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)		dB <A>	59	60	62.5	62.5
Sound power level (measured in anechoic room)		dB <A>	82.5	83.5	86	86
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Braze	19.05 (3/4) Braze	19.05 (3/4) Braze	19.05 (3/4) Braze
	Low pressure	mm (in.)	19.05 (3/4) Braze	22.2 (7/8) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m ³ /min	185	185	230	230
		L/s	3,083	3,083	3,833	3,833
		cfm	6,532	6,532	8,121	8,121
Compressor	Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.		0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
	Type x Quantity		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
External finish	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	5.6	6.9	8.1	10.5
	Case heater	kW	—	—	—	—
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		—	—	—	—
	Fan motor		—	—	—	—
Refrigerant	Type x original charge		R410A x 9.5 kg (21 lbs)	R410A x 9.5 kg (21 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)
Net weight		kg (lbs)	205 (452)	205 (452)	248 (547)	248 (547)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Optional parts			Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1

Notes:

*1,*2 Nominal conditions

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

*3 -5°C DB (23°F DB) / -6°C WB (21°F WB) to 21°C DB (70°F DB) / 15.5°C WB (60°F WB) with cooling/heating mixed operation.

*4 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



OUTDOOR UNIT

R2 Series

PURY-P YLM-A1(-BS)



► Specifications

Model			PURY-P400YLM-A1 (-BS)	PURY-P450YLM-A1 (-BS)	PURY-P500YLM-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	50.0	56.0
	*1	BTU / h	153,500	170,600	191,100
	Power input	kW	13.71	14.32	17.77
	Current input	A	23.1-21.9-21.1	24.1-22.9-22.1	29.9-28.4-27.4
Temp. range of cooling	*3	EER	3.28	3.49	3.15
		Indoor	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	*3	Outdoor	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)
		D.B.			
Heating capacity (Nominal)	*2	kW	45.0	56.0	58.0
	*2	BTU / h	153,500	191,100	197,900
	Power input	kW	11.42	14.93	16.06
	Current input	A	19.2-18.3-17.6	25.2-23.9-23.0	27.1-25.7-24.8
Temp. range of heating	*3	COP	3.94	3.75	3.61
		Indoor	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	*3	Outdoor	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
		W.B.			
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		P15~P250/1~40	P15~P250/1~45	P15~P250/1~50
Sound pressure level (measured in anechoic room)		dB <A>	62.5	62.5	63.5
Sound power level (measured in anechoic room)		dB <A>	86	86	87
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Braze	22.2 (7/8) Braze	22.2 (7/8) Braze
	Low pressure	mm (in.)	28.58 (1-1/8) Braze	28.58 (1-1/8) Braze	28.58 (1-1/8) Braze
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m ³ /min	230	320	380
		L/s	3,833	5,333	6,333
		cfm	8,121	11,299	13,418
*4	Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2
	External static press.		0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
	Compressor		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
Compressor	Type x Quantity		Inverter	Inverter	Inverter
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.9	12.4	13.4
Case heater		kW	—	—	—
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		—	—	—
	Fan motor		—	—	—
Refrigerant	Type x original charge		R410A x 10.3 kg (23 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
Net weight	kg (lbs)		246 (543)	321 (708)	321 (708)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Optional parts			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016V-GA1 Sub BC controller: CMB-P104,108V-GB1,CMB-P1016V-HB1	Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016V-GA1 Sub BC controller: CMB-P104,108V-GB1,CMB-P1016V-HB1	Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016V-GA1 Sub BC controller: CMB-P104,108V-GB1,CMB-P1016V-HB1

Notes:

*1,*2 Nominal conditions

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

*3 -5°C DB (23°F DB) / -6°C WB (21°F WB) to 21°C DB (70°F DB) / 15.5°C WB (60°F WB) with cooling/heating mixed operation.

*4 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



Outdoor Unit

OUTDOOR UNIT

R2 Series

PURY-P YSLM-A1(-BS)



► Specifications

Model			PURY-P400YSLM-A1 (-BS)		PURY-P450YSLM-A1 (-BS)		PURY-P500YSLM-A1 (-BS)	
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	45.0		50.0		56.0	
	*1	BTU / h	153,500		170,600		191,100	
		Power input kW	10.97		12.50		14.39	
		Current input A	18.5-17.5-16.9		21.1-20.0-19.3		24.2-23.0-22.2	
	EER	kW / kW	4.10		4.00		3.89	
Temp. range of cooling	*3	Indoor	W.B. 15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	D.B. -5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2	kW	50.0		56.0		63.0	
	*2	BTU / h	170,600		191,100		215,000	
		Power input kW	10.98		12.64		14.65	
		Current input A	18.5-17.6-16.9		21.3-20.2-19.5		24.7-23.4-22.6	
	COP	kW / kW	4.55		4.43		4.30	
Temp. range of heating	*3	Indoor	D.B. 15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	W.B. -20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
	Model / Quantity		P15~P250/1~40		P15~P250/1~45		P15~P250/1~50	
Sound pressure level (measured in anechoic room)		dB <A>	62		62.5		63	
Sound power level (measured in anechoic room)		dB <A>	85.5		86		86.5	
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed		22.2 (7/8) Brazed		22.2 (7/8) Brazed	
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed	
Set Model								
Model			PURY-P200YLM-A1 (-BS)	PURY-P200YLM-A1 (-BS)	PURY-P200YLM-A1 (-BS)	PURY-P250YLM-A1 (-BS)	PURY-P250YLM-A1 (-BS)	PURY-P250YLM-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	185	185	185	185	185	185
		L/s	3,083	3,083	3,083	3,083	3,083	3,083
		cfm	6,532	6,532	6,532	6,532	6,532	6,532
	Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
		External static press.		0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)
Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter		Inverter	
	Motor output	kW	5.6	5.6	5.6	6.9	6.9	6.9
		Case heater	kW	—	—	—	—	—
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		—		—		—	
	Fan motor		—		—		—	
Refrigerant			Type x original charge	R410A x 9.5 kg (21 lbs)	R410A x 9.5 kg (21 lbs)	R410A x 9.5 kg (21 lbs)	R410A x 9.5 kg (21 lbs)	R410A x 9.5 kg (21 lbs)
Net weight			kg (lbs)	205 (452)	205 (452)	205 (452)	205 (452)	205 (452)
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	19.05 (3/4) Brazed	—	19.05 (3/4) Brazed	—	22.2 (7/8) Brazed	—
Optional parts			Outdoor Twinning kit: CMY-R100VBK-A Joint: CMY-Y102S-G2,CMY-Y102L-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016V-GA1 Sub BC controller: CMB-P104,108V-GB1,CMB-P1016V-HB1		Outdoor Twinning kit: CMY-R100VBK-A Joint: CMY-Y102S-G2,CMY-Y102L-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016V-GA1 Sub BC controller: CMB-P104,108V-GB1,CMB-P1016V-HB1		Outdoor Twinning kit: CMY-R100VBK-A Joint: CMY-Y102S-G2,CMY-Y102L-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016V-GA1 Sub BC controller: CMB-P104,108V-GB1,CMB-P1016V-HB1	

Notes:

*1,*2 Nominal conditions

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

*3 -5°C DB (23°F DB) / -6°C WB (21°F WB) to 21°C DB (70°F DB) / 15.5°C WB (60°F WB) with cooling/heating mixed operation.

*4 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



OUTDOOR UNIT

R2 Series

PURY-P YSLM-A1(-BS)



► Specifications

Model			PURY-P550YSLM-A1 (-BS)		PURY-P600YSLM-A1 (-BS)		PURY-P650YSLM-A1 (-BS)							
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz							
Cooling capacity (Nominal)	*1	kW	63.0		69.0		73.0							
	*1	BTU / h	215,000		235,400		249,100							
		Power input kW	16.89		19.32		21.28							
		Current input A	28.5-27.0-26.1		32.6-30.9-29.8		35.9-34.1-32.8							
		EER kW / kW	3.73		3.57		3.43							
Temp. range of cooling	*3	Indoor	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)							
		Outdoor	-5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)							
Heating capacity (Nominal)	*2	kW	69.0		76.5		81.5							
	*2	BTU / h	235,400		261,000		278,100							
		Power input kW	16.62		19.12		20.68							
		Current input A	28.0-26.6-25.6		32.2-30.6-29.5		34.9-33.1-31.9							
		COP kW / kW	4.15		4.00		3.94							
Temp. range of heating	*3	Indoor	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)							
		Outdoor	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)							
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity							
	Model / Quantity		P15~P250/2~50		P15~P250/2~50		P15~P250/2~50							
Sound pressure level (measured in anechoic room)		dB <A>	64.5		65.5		65.5							
Sound power level (measured in anechoic room)		dB <A>	88		89		89							
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed							
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed							
Set Model														
Model			PURY-P250YLM-A1 (-BS)		PURY-P300YLM-A1 (-BS)		PURY-P300YLM-A1 (-BS)		PURY-P300YLM-A1 (-BS)		PURY-P350YLM-A1 (-BS)			
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1			
	Air flow rate	m³/min	185		230		230		230		230			
		L/s	3,083		3,833		3,833		3,833		3,833			
		cfm	6,532		8,121		8,121		8,121		8,121			
	Driving mechanism		Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor			
	*4	Motor output	kW	0.92 x 1		0.92 x 1		0.92 x 1		0.92 x 1		0.92 x 1		
		External static press.		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		
Compressor	Type x Quantity		Inverter scroll hermetic compressor				Inverter scroll hermetic compressor				Inverter scroll hermetic compressor			
	Starting method		Inverter		Inverter		Inverter		Inverter		Inverter			
	Motor output	kW	6.9		8.1		8.1		8.1		10.5			
	Case heater	kW	—		—		—		—		—			
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740		1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740			
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection				Over-heat protection, Over-current protection				Over-heat protection, Over-current protection			
	Compressor		—				—				—			
	Fan motor		—				—				—			
Refrigerant			Type x original charge		R410A x 9.5 kg (21 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)		
Net weight			kg (lbs)		205 (452)	248 (547)	248 (547)	248 (547)	248 (547)	248 (547)	248 (547)	248 (547)		
Heat exchanger			Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed		19.05 (3/4) Brazed		19.05 (3/4) Brazed		19.05 (3/4) Brazed			
	Low pressure	mm (in.)	22.2 (7/8) Brazed		—		22.2 (7/8) Brazed		—		22.2 (7/8) Brazed			
Optional parts			Outdoor Twinning kit: CMY-R100VBK2				Outdoor Twinning kit: CMY-R100VBK2				Outdoor Twinning kit: CMY-R100VBK2			
			Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1				Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1				Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			

Notes:

*1,*2 Nominal conditions

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

*3 -5°C DB (23°F DB) / -6°C WB (21°F WB) to 21°C DB (70°F DB) / 15.5°C WB (60°F WB) with cooling/heating mixed operation.

*4 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-2.

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

OUTDOOR UNIT

R2 Series

PURY-P YSLM-A1(-BS)

► Specifications



Model			PURY-P700YSLM-A1 (-BS)		PURY-P750YSLM-A1 (-BS)		PURY-P800YSLM-A1 (-BS)				
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz				
Cooling capacity (Nominal)	*1	kW	80.0		85.0		90.0				
	*1	BTU / h	273,000		290,000		307,100				
		Power input kW	24.24		26.23		28.30				
		Current input A	40.9-38.8-37.4		44.2-42.0-40.5		47.7-45.3-43.7				
	EER	kW / kW	3.30		3.24		3.18				
Temp. range of cooling	*3	Indoor	W.B. 15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)				
		Outdoor	D.B. -5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)				
Heating capacity (Nominal)	*2	kW	88.0		90.0		90.0				
	*2	BTU / h	300,300		307,100		307,100				
		Power input kW	22.68		23.01		22.84				
		Current input A	38.2-36.3-35.0		38.8-36.9-35.5		38.5-36.6-35.3				
	COP	kW / kW	3.88		3.91		3.94				
Temp. range of heating	*3	Indoor	D.B. 15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)				
		Outdoor	W.B. -20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)				
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity				
	Model / Quantity		P15~P250/2~50		P15~P250/2~50		P15~P250/2~50				
Sound pressure level (measured in anechoic room)		dB <A>	65.5		65.5		65.5				
Sound power level (measured in anechoic room)		dB <A>	89		89		89				
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed				
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed		34.93 (1-3/8) Brazed		34.93 (1-3/8) Brazed				
Set Model											
Model			PURY-P350YLM-A1 (-BS)	PURY-P350YLM-A1 (-BS)	PURY-P350YLM-A1 (-BS)	PURY-P400YLM-A1 (-BS)	PURY-P400YLM-A1 (-BS)	PURY-P400YLM-A1 (-BS)			
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		
	Air flow rate	m³/min	230		230		230		230		
		L/s	3,833		3,833		3,833		3,833		
		cfm	8,121		8,121		8,121		8,121		
	Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		
	Compressor	*4	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
External static press.		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)			
Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor			
	Starting method		Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	10.5		10.5		10.9		10.9		
	Case heater	kW	—		—		—		—		
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740		
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
	Compressor		—		—		—		—		
	Fan motor		—		—		—		—		
Refrigerant			Type x original charge		R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	R410A x 10.3 kg (23 lbs)	
Net weight		kg (lbs)	248 (547)		248 (547)		246 (543)		246 (543)		
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed		22.2 (7/8) Brazed		22.2 (7/8) Brazed		
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		—		28.58 (1-1/8) Brazed		
Optional parts			Outdoor Twinning kit: CMY-R200VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			Outdoor Twinning kit: CMY-R200VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1			Outdoor Twinning kit: CMY-R200VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1		

Notes:

*1,*2 Nominal conditions

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

*3 -5°C DB (23°F DB) / -6°C WB (21°F WB) to 21°C DB (70°F DB) / 15.5°C WB (60°F WB) with cooling/heating mixed operation.

*4 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-2.

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



OUTDOOR UNIT

R2 Series

PURY-P YSLM-A1(-BS)



► Specifications

Model			PURY-P850YSLM-A1 (-BS)		PURY-P900YSLM-A1 (-BS)	
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	96.0		101.0	
	*1	BTU / h	327,600		344,600	
	Power input	kW	29.26		29.79	
	Current input	A	49.3-46.9-45.2		50.2-47.7-46.0	
	EER	kW / kW	3.28		3.39	
Temp. range of cooling	*3	Indoor	W.B. 15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	D.B. -5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2	kW	101.0		113.0	
	*2	BTU / h	344,600		385,600	
	Power input	kW	26.23		30.13	
	Current input	A	44.2-42.0-40.5		50.8-48.3-46.5	
	COP	kW / kW	3.85		3.75	
Temp. range of heating	*3	Indoor	D.B. 15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	W.B. -20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
	Model / Quantity		P15~P250/2~50		P15~P250/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	65.5		65.5	
Sound power level (measured in anechoic room)		dB <A>	89		89	
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed	
	Low pressure	mm (in.)	41.28 (1-5/8) Brazed		41.28 (1-5/8) Brazed	
Set Model						
Model			PURY-P400YLM-A1 (-BS)		PURY-P450YLM-A1 (-BS)	
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 2	
	Air flow rate	m³/min	230		320	
		L/s	3,833		5,333	
		cfm	8,121		11,299	
	Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	*4	Motor output	0.92 x 1		0.92 x 2	
		External static press.	0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter	
	Motor output	kW	10.9		12.4	
	Case heater	kW	—		—	
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,750 x 740	
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 68-15/16 x 29-3/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		—		—	
	Fan motor		—		—	
Refrigerant		Type x original charge	R410A x 10.3 kg (23 lbs)		R410A x 11.8 kg (27 lbs)	
Net weight		kg (lbs)	246 (543)		321 (708)	
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed		22.2 (7/8) Brazed	
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed	
Optional parts			Outdoor Twinning kit: CMY-R200XLVBK Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1		Outdoor Twinning kit: CMY-R200XLVBK Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	

Notes:

*1,*2 Nominal conditions

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

*3 -5°C DB (23°F DB) / -6°C WB (21°F WB) to 21°C DB (70°F DB) / 15.5°C WB (60°F WB) with cooling/heating mixed operation.

*4 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-2.


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



Outdoor Unit






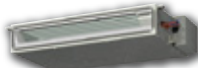












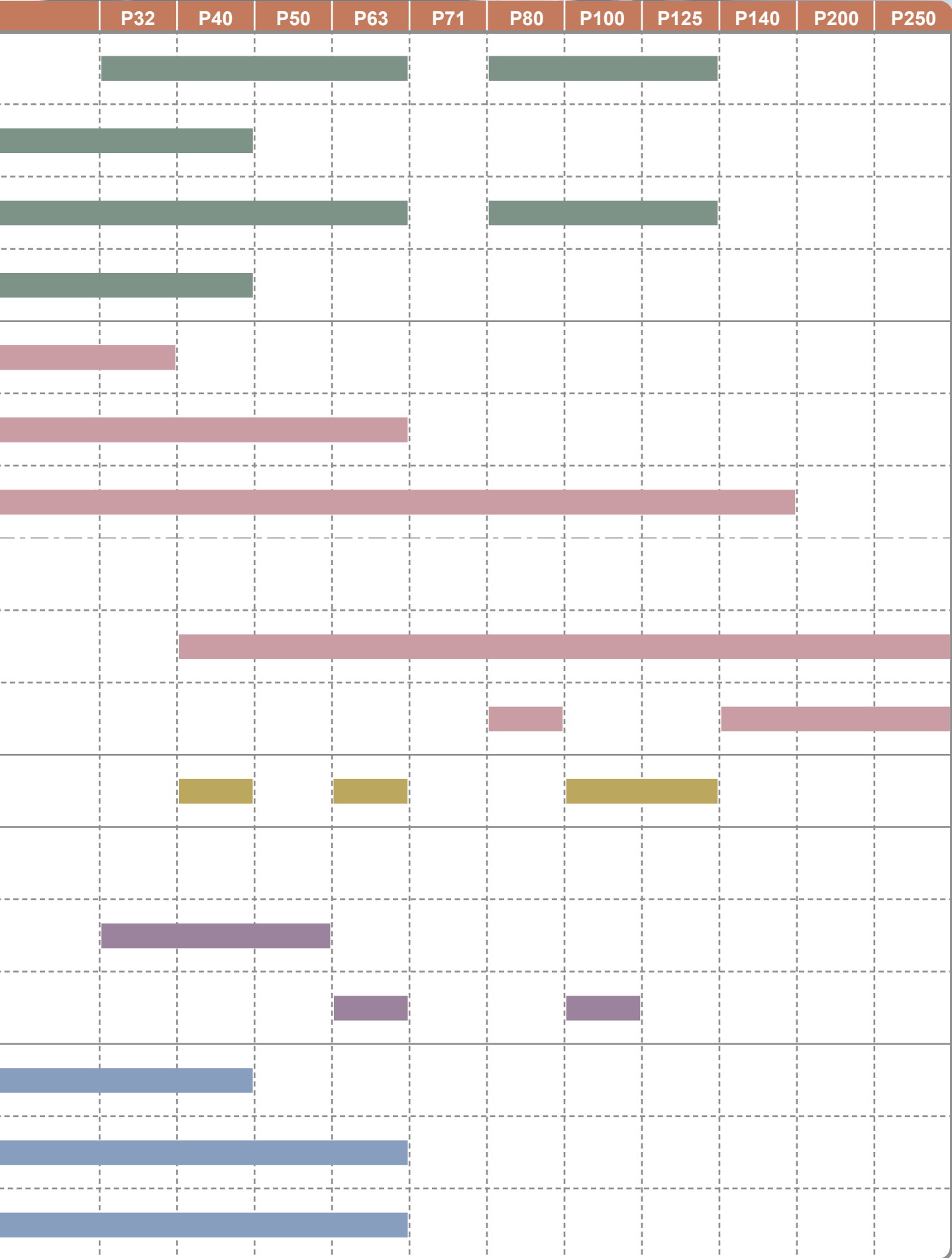
I ndoor Unit

- Ceiling cassette type 4-way airflow
- Ceiling cassette type 2-way airflow
- Ceiling cassette type 1-way airflow
- Ceiling concealed type
- Fresh Air Intake type
- Ceiling suspended type
- Wall mounted type
- Floor standing exposed
- Floor mounted concealed type
- BC Controller
-  Lossnay
- OA Processing Units



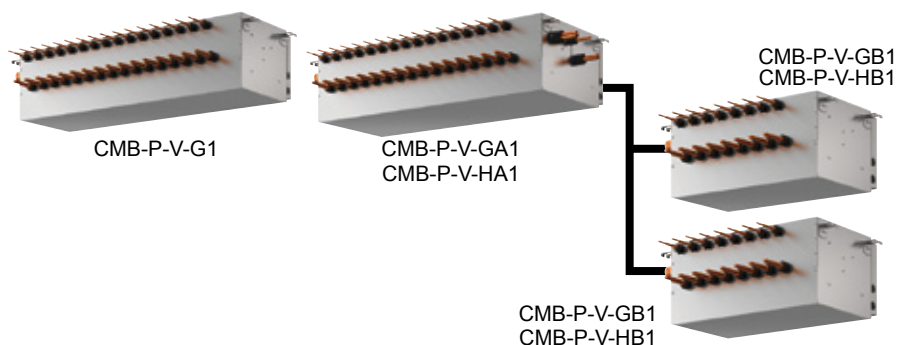
Wide Selection of Indoor Units

Type		Model name	Model	P15	P20	P25	
Ceiling Cassette	4-way air flow	PLFY-P VBM-E					
		PLFY-P VCM-E2					
	2-way air flow	PLFY-P VLMD-E					
		PMFY-P VBM-E					
Ceiling Concealed		PEFY-P VMR-E-L/R					
		PEFY-P VMS1(L)-E					
		PEFY-P VMA(L)-E					
		PEFY-P VMA3-E					
		PEFY-P VMH(S)-E					
	Fresh Air Intake	PEFY-P VMH-E-F					
Ceiling Suspended		PCFY-P VKM-E					
Wall Mounted		PKFY-P VBM-E					
		PKFY-P VHM-E					
		PKFY-P VKM-E					
Floor Standing/ Floor Mounted Concealed		PFFY-P VKM-E2					
		PFFY-P VLEM-E					
		PFFY-P VLRM-E PFFY-P VLRRM-E					



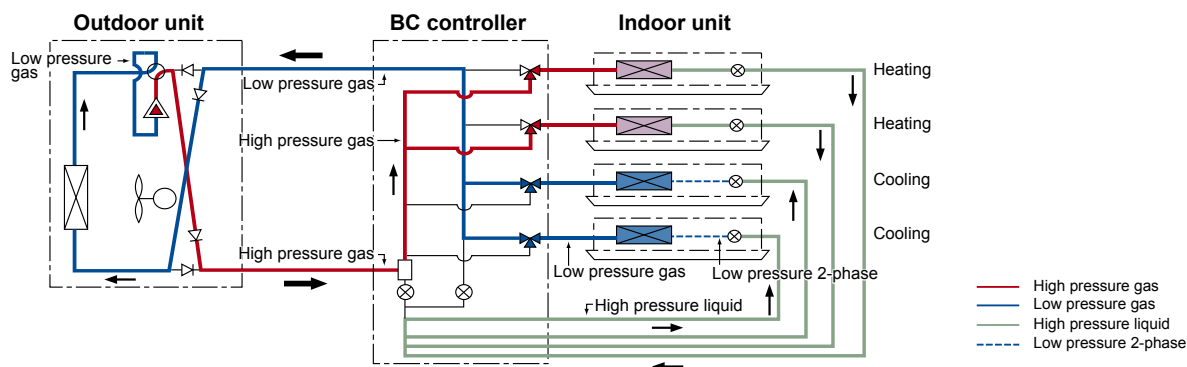
BC CONTROLLER

CMB-P-V-G1 CMB-P-V-GA1 CMB-P-V-HA1 CMB-P-V-GB1 CMB-P-V-HB1



BC CONTROLLER

In many ways, the BC Controller is the technological heart of the CITY MULTI R2/WR2. It works in unison with the outdoor unit to provide simultaneous cooling and heating, something no other two-pipe system can do. The BC Controller is connected to the outdoor unit by two pipes and to each indoor unit by a series of two refrigerant pipes, depending on the indoor unit count. The BC Controller is required for all CITY MULTI R2-Series installations. It comes in 4, 5, 6, 8, 10, 13, and 16-branch options. The BC Controller you select depends on how many indoor units will be operated from each outdoor unit and your total capacity requirements.



► Specifications

Model name				CMB-P104V-G1	CMB-P105V-G1	CMB-P106V-G1	CMB-P108V-G1	CMB-P1010V-G1	CMB-P1013V-G1	CMB-P1016V-G1	
Number of branch				4	5	6	8	10	13	16	
Power source				1-phase 220/230/240V 50Hz/60Hz							
Power input		kW	50Hz	Cooling	0.067/0.076/0.085	0.082/0.093/0.104	0.097/0.110/0.123	0.127/0.144/0.161	0.156/0.177/0.198	0.201/0.228/0.255	0.246/0.279/0.312
			heating	0.030/0.034/0.038	0.038/0.043/0.048	0.045/0.051/0.057	0.060/0.068/0.076	0.075/0.085/0.095	0.097/0.110/0.123	0.119/0.135/0.151	
		60Hz	Cooling	0.054/0.061/0.067	0.066/0.074/0.082	0.078/0.088/0.097	0.102/0.115/0.127	0.126/0.141/0.156	0.162/0.182/0.201	0.198/0.222/0.246	
			heating	0.024/0.027/0.030	0.030/0.034/0.038	0.036/0.041/0.045	0.048/0.054/0.060	0.060/0.068/0.075	0.078/0.088/0.097	0.096/0.108/0.119	
Current		A	50Hz	Cooling	0.31/0.34/0.36	0.38/0.41/0.44	0.45/0.48/0.52	0.58/0.63/0.68	0.71/0.77/0.83	0.92/1.00/1.07	1.12/1.22/1.30
			heating	0.14/0.15/0.16	0.18/0.19/0.20	0.21/0.23/0.24	0.28/0.30/0.32	0.35/0.37/0.40	0.45/0.48/0.52	0.55/0.59/0.63	
		60Hz	Cooling	0.25/0.27/0.28	0.30/0.33/0.35	0.36/0.39/0.41	0.47/0.50/0.53	0.58/0.62/0.65	0.74/0.80/0.84	0.90/0.97/1.03	
			heating	0.11/0.12/0.13	0.14/0.15/0.16	0.17/0.18/0.19	0.22/0.24/0.25	0.28/0.30/0.32	0.36/0.39/0.41	0.44/0.47/0.50	
External finish				Galvanized steel plate (Lower part drain pan painting N1.5)							
Indoor unit capacity connectable to 1 branch				Model P80 or smaller (•Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)							
Connectable Outdoor unit ★				Refer to the combination chart of BC controller R2/WR2 series							
Height		mm		284							
Width		mm		648							
Depth		mm		432							
Refrigerant piping diameter	To outdoor unit	Connectable outdoor unit capacity									
			P200			P250, P300			P350		
		High pressure pipe	ø15.88 (ø5/8) Brazed			ø19.05 (ø3/4) Brazed			ø19.05 (ø3/4) Brazed		
	To indoor unit	Low pressure pipe	ø19.05 (ø3/4) Brazed			ø22.2 (ø7/8) Brazed			ø28.58 (ø1-1/8) Brazed		
		Liquid pipe	Indoor unit Model 50 or smaller:ø6.35 brazed, Over 50:ø9.52 brazed (ø12.7 with optional joint pipe used.)								
		Gas pipe	Indoor unit Model 50 or smaller:ø12.7 brazed, Over 50:ø15.88 brazed (ø19.05 with optional joint pipe used.)								
Drain pipe				O.D. 32mm							
Net weight		kg		24	27	28	33	38	45	52	
Accessories				•Drain connection pipe (with flexible hose and insulation) •Reducer							

Indoor Unit

► Specifications

Model name				CMB-P108V-GA1	CMB-P1010V-GA1	CMB-P1013V-GA1	CMB-P1016V-GA1	CMB-P1016V-HA1	
Number of branch				8	10	13	16		
Power source				1-phase 220/230/240V 50Hz/60Hz					
Power input	kW	50Hz	Cooling	0.127/0.144/0.161	0.156/0.177/0.198	0.201/0.228/0.255	0.246/0.279/0.312		
			heating	0.060/0.068/0.076	0.075/0.085/0.095	0.097/0.110/0.123	0.119/0.135/0.151		
		60Hz	Cooling	0.102/0.115/0.127	0.126/0.141/0.156	0.162/0.182/0.201	0.198/0.222/0.246		
			heating	0.048/0.054/0.060	0.060/0.068/0.075	0.078/0.088/0.097	0.096/0.108/0.119		
Current	A	50Hz	Cooling	0.58/0.63/0.68	0.71/0.77/0.83	0.92/1.00/1.07	1.12/1.22/1.30		
			heating	0.28/0.30/0.32	0.35/0.37/0.40	0.45/0.48/0.52	0.55/0.59/0.63		
		60Hz	Cooling	0.47/0.50/0.53	0.58/0.62/0.65	0.74/0.80/0.84	0.90/0.97/1.03		
			heating	0.22/0.24/0.25	0.28/0.30/0.32	0.36/0.39/0.41	0.44/0.47/0.50		
External finish				Galvanized steel plate (Lower part drain pan painting N1.5)					
Indoor unit capacity connectable to 1 branch				Model P80 or smaller (•Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)					
Connectable Outdoor unit ★				Refer to the combination chart of BC controller R2/WR2 series					
Height		mm		289					
Width		mm		1,110					
Depth		mm		520					
Refrigerant piping diameter	To outdoor unit			Connectable outdoor unit capacity					
			P200	P250,300	P350	P400~P500	P550~P650	P700~P800/P850~P900*4	
		High pressure pipe	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed	ø28.58 (ø1-1/8) Brazed/ ø28.58 (ø1-1/8) Brazed	
		Low pressure pipe	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed			ø34.93 (ø1-3/8) Brazed/ ø41.28 (ø1-5/8) Brazed	
	To indoor unit	Liquid pipe	Indoor unit Model 50 or smaller:ø6.35 brazed, Over 50:ø9.52 brazed (ø12.7 with optional joint pipe used.)						
		Gas pipe	Indoor unit Model 50 or smaller:ø12.7 brazed, Over 50:ø15.88 brazed (ø19.05 with optional joint pipe used.)						
	To another BC controller			Total indoor unit capacity connected to this Sub BC controller					
			~P200	P201~P300	P301~P350	P351~P400	P401~P450		
		High press gas pipe	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed			
		Low press gas pipe	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed		ø28.58 (ø1-1/8) Brazed			
Liquid pipe		ø9.52 (ø3/8) Brazed			ø12.7 (ø1/2) Brazed		ø15.88 (ø5/8) Brazed		
Drain pipe				O.D. 32mm					
Net weight		kg		43	48	55	62	69	
Accessories				•Drain connection pipe (with flexible hose and insulation) •Reducer					

Model name				CMB-P104V-GB1	CMB-P108V-GB1	CMB-P1016V-HB1		
Number of branch				4	8	16		
Power source				1-phase 220/230/240V 50Hz/60Hz				
Power input	kW	50Hz	Cooling	0.060/0.068/0.076	0.119/0.135/0.151	0.237/0.269/0.301		
			heating	0.030/0.034/0.038	0.060/0.068/0.076	0.119/0.135/0.151		
		60Hz	Cooling	0.048/0.054/0.060	0.096/0.108/0.119	0.192/0.216/0.237		
			heating	0.024/0.027/0.030	0.048/0.054/0.060	0.096/0.108/0.120		
Current	A	50Hz	Cooling	0.28/0.30/0.32	0.55/0.59/0.63	1.08/1.17/1.26		
			heating	0.14/0.15/0.16	0.28/0.30/0.32	0.55/0.59/0.63		
		60Hz	Cooling	0.22/0.24/0.25	0.44/0.47/0.50	0.88/0.94/0.99		
			heating	0.11/0.12/0.13	0.22/0.24/0.25	0.44/0.47/0.50		
External finish				Galvanized steel plate (Lower part drain pan painting N1.5)				
Indoor unit capacity connectable to 1 branch				Model P80 or smaller (•Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)				
Connectable Outdoor unit ★				Refer to the combination chart of BC controller R2/WR2 series				
Height		mm		284		284		
Width		mm		648		1,098		
Depth		mm		432		432		
Refrigerant piping diameter	To Main BC controller	Total indoor unit capacity connected this Sub BC controller						
		~P200, P201~P350			~P200, P201~P450			
		~P200	P201~P300	P301~P350	P351~P400	P401~P450		
		High pressure pipe	ø15.88 (ø5/8) Brazed		ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed	
	To indoor unit	Low pressure pipe	ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed		ø28.58 (ø1-1/8) Brazed	
		Liquid pipe	ø9.52 (ø3/8) Brazed			ø12.7 (ø1/2) Brazed		ø15.88 (ø5/8) Brazed
		Liquid pipe	Indoor unit Model 50 or smaller:ø6.35 brazed, Over 50:ø9.52 brazed (ø12.7 with optional joint pipe used.)					
		Gas pipe	Indoor unit Model 50 or smaller:ø12.7 brazed, Over 50:ø15.88 brazed (ø19.05 with optional joint pipe used.)					
Drain pipe				O.D. 32mm				
Net weight		kg		22	32	55		
Accessories				•Drain connection pipe (with flexible hose and insulation) •Reducer				

★ Combination chart of BC Controller for R2 series

	P200,250,300,350	P400~650	P700~900
CMB-P V-G1	✓	N/A	N/A
CMB-P V-GA1	✓	✓	N/A
CMB-P V-HA1	N/A	N/A	✓
CMB-P V-GB1	✓	✓	✓
CMB-P V-HB1	✓	✓	✓

Notes:

- The equipment is for R410A refrigerant.
- 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 5 m away from any indoor units.)
- Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.)
- When using an outdoor unit – 28HP (P700) or more, use CMB-P1016V-HA1.

★ Combination chart of BC Controller for WR2 series

	P200,250,300	P400,450,500,550,600	P700,750,800,850,900
CMB-P V-G1	✓	N/A	N/A
CMB-P V-GA1	✓	✓	N/A
CMB-P V-HA1	N/A	N/A	✓
CMB-P V-GB1	✓	✓	✓
CMB-P V-HB1	✓	✓	✓

- For sub BC controller CMB-P-B-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P350 unit. For sub BC controller CMB-P-1016V-HB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P450 unit.



Remote Controller

- **Individual Remote Controller**
- **Centralized Remote Controller**



The importance of control

The need for control is paramount in order to optimise the performance of any air conditioning system and minimize its running costs. Mitsubishi Electric offers a wide range of control options designed to meet such needs.

Operating an air conditioning system without the right control can prove costly. It's therefore important to ensure that every system is correctly specified to the degree of control it requires. Mitsubishi Electric have a wide range of controls available 'off-the-shelf' and individual control systems can be specifically designed to match.

Good controls will benefit any application, large or small. Air conditioning products need to react to a variety of factors: different room sizes, usage and staff levels; changes in the climate; electronic equipment and lighting ...the list goes on. So whatever the application, optimum control of air conditioning systems is essential and will result in a constant, comfortable environment, which in turn is both energy and cost efficient.

A degree of difference

When an air conditioning system is not properly controlled, it will not run as efficiently as it should. For every degree that the system deviates from the required temperature, energy costs can rise by up to 5%. Specify one of the many control options from Mitsubishi Electric to ensure air conditioning works as intended, whilst giving the optimum amount of control.

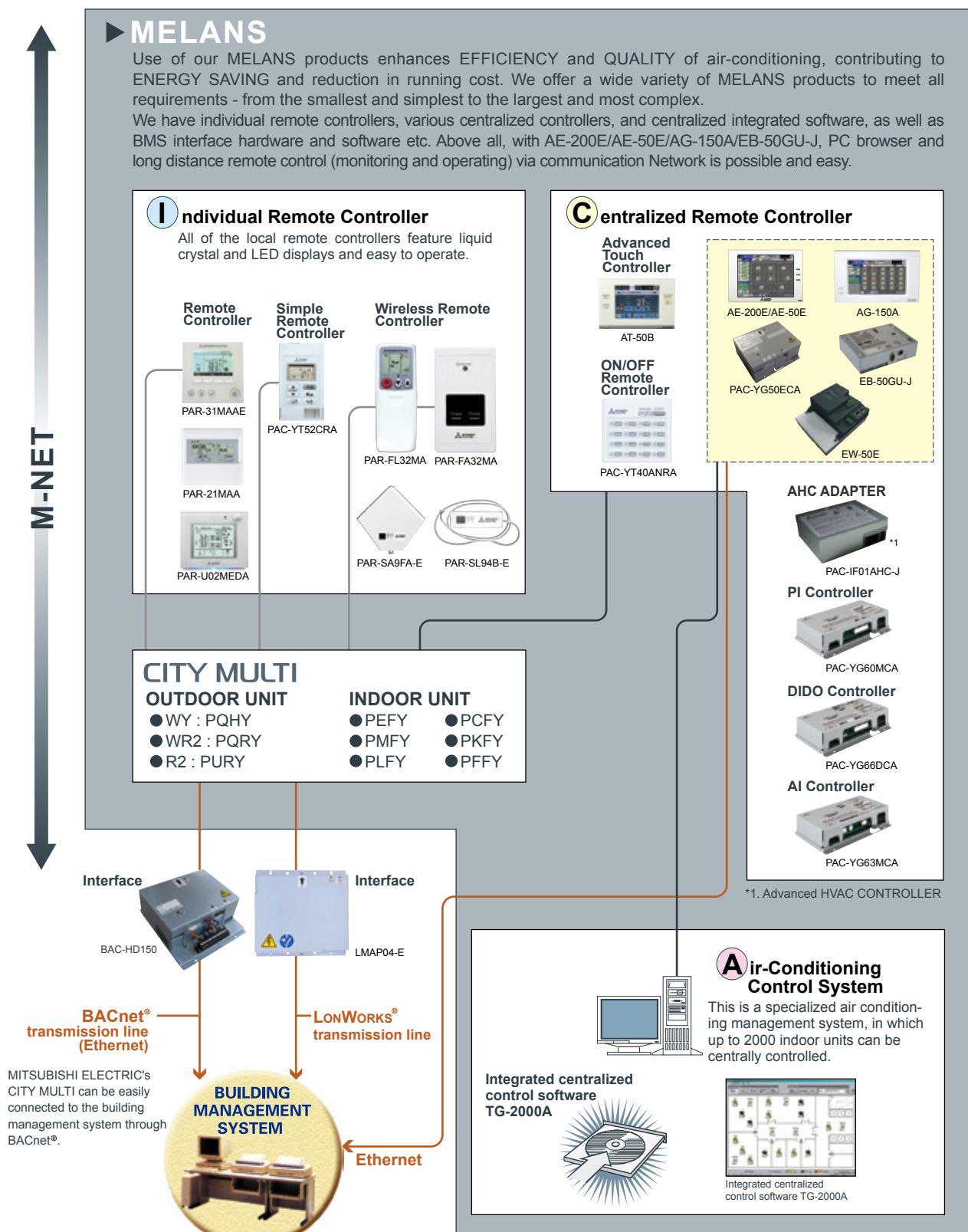
The simpler, the better

With the array of comprehensive control systems available from Mitsubishi Electric, it becomes simple to design and install air conditioning systems. From a simple hand-held controller to a AE-200E system - you are in control.



System Controller

mitsubishi electric's Air-conditioner Network System (MELANS) leads air conditioner management a PC browser and Network era.



*Some controllers cannot be used in combination with certain models of devices.



Integrated Communications Control with Mitsubishi Electric's Unique Transmission Network (M-NET)

Model	Local remote controller ^{*9}					System controller														^{*4, *5}	
	PAR-31MAAE	PAR-21MAA	PAR-U02MEDA	PAC-YT52CRA	PAR-FL32MA	PAC-YT40ANRA	AT-50B	AE-200E / AE-50E	AE-200E+ / AE-50E+ / EW-50E	EW-50E	AG-150A	AG-150A+ / PAC-YG50ECA	EB-50GU-J	TG-2000A							
Controllable Groups / Indoors (Group / Indoor) ^{*8}	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	16 / 50	50 / 50	50 / 50	200 / 200	50 / 50	50 / 50	150 / 150	50 / 50	2000 / 2000							
■Operating																					
ON / OFF	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Mode (cool / heat / dry / fan)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Temperature-set	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Dual set point ^{*10}	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Local Permit / Prohibit	N	N	N	N	N	N	N	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Fan speed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Air-flow direction	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
■Status monitoring																					
ON / OFF	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Mode (cool / heat / dry / fan)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Temperature-set	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Local Permit / Prohibit	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Fan speed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Air-flow direction	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Indoor temperature	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Filter sign	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Error flashing	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Error code	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Operation hour	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
■Scheduling																					
One-day	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Times of ON / OFF per day	1	8	1	N	1	N	16	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Weekly	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Times of ON / OFF per week	8 x 7	8 x 7	8 x 7	N	N	N	16 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7
Annual	N	N	N	N	N	N	N	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Optimized start-up	N	N	N	N	N	N	N	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Auto-off timer	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Min. timer setting unit (minute)	5	1	5	N	10	N	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
■Recording																					
Error record	○	N	N	N	N	N	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Daily / monthly report	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Energy management data	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
■Other																					
Temp-set limitation by Local R / C	○	○	○	○	○	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Temp-set limitation by System controller ^{*4}	○ ^{*6}	○ ^{*6}	○	○ ^{*6}	N	N	○ ^{*6}	N	○ ^{*2, *6}	N	○ ^{*2, *6}	N	○ ^{*2, *6}	N	○ ^{*2, *6}	N	○ ^{*2, *6}	N	○ ^{*2, *6}	○ ^{*6}	○ ^{*6}
Operation-lock	○	○	○	○	○	N	○	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Night setback	○	N	○	N	N	N	○	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○ ^{*2}	○	○
Sliding temperature control	N	N	N	N	N	N	N	○	○ ^{*2}	○ ^{*2}	N	○ ^{*2}	○	○ ^{*2}	○	○ ^{*2}	N	○ ^{*2}	○	○	○
■Management (Group / Interlocked)																					
Ventilation interlock	N / O	N / O	N / O	N / O	N	○	○	○	○ ^{*2}	○	○ ^{*2}	N	○ ^{*2}	○	○ ^{*2}	○	○ ^{*2}	N	○ ^{*2}	○	○
Group setting	○ ^{*1}	○ ^{*1}	○	○ ^{*1}	N	○	○	○	○ ^{*2}	○	○ ^{*2}	N	○ ^{*2}	○	○ ^{*2}	○	○ ^{*2}	N	○ ^{*2}	○	○
Block setting	N	N	N	N	N	N	N	○	○ ^{*2}	○ ^{*2}	○ ^{*2}	○	○ ^{*2}	○	○ ^{*2}	○	○ ^{*2}	N	○ ^{*2}	○	○
Revision of electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	□	●
■Operating on LOSSNAY interlocked (Group / Interlocked)																					
ON / OFF	N / O	N / O	N / O	N / O	N / O ^{*7}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}
Fan speed	N / O	N / O	N / O	N / O	N	N	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}
Ventilation mode	N / N	N / N	N	N	N	N	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}
■Status monitoring on LOSSNAY interlocked (Group / Interlocked)																					
ON / OFF	N / O	N / O	N / O	N / O	N	N	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}
Fan speed	N / O	N / O	N / O	N	N	N	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}
Ventilation mode	N / O	N / O	N / O	N	N	N	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}	○ ^{*13}

○: Each group / Batched ; ○: Each group ; □: Block (for CITY MULTI Indoor unit, not for all Mr. SLIM) ; ●: AE-200E/AE-50E/EW-50E/AG-150A/EB-50GU-J license registration possible.
 (●): License registration for the optional functions required N: Not Available (Not Used.) △: Batched only ; ▲: Batched handling (for maintenance) ■: Block

*1. Group setting via wiring between Indoor units with cross-over cable;

*2. Installation possible at Initial setting web browser;

*3. Inter-lock is set at Local remote controller.

*4. AE-200E/AE-50E/EW-50E/AG-150A/EB-50GU-J license registration to AE-200E/AE-50E/EW-50E/AG-150A/EB-50GU-J is required to monitor and operate the units by browser and TG-2000A.

5. AG-150A connected with PAC-YG50ECA is compatible with TG-2000A Ver.6.10 or later. EB-50GU-J is compatible with TG-2000A Ver. 6.40A or later. AE-200E/AE-50E is compatible with TG-2000A Ver. 6.50* or later. Contact your local distributor for which version of TG-2000A supports EW-50E.

*6. This function can be set only on the ME remote controller. This function cannot be used with the MA/Simple MA remote controller.

(But, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and there are possibilities that this function can be used with them.)

*7. Inter-lock is set from system controllers (Except PAC-YT40ANRA) or local remote controllers.

*8. The maximum number of controllable units decreases depending on the indoor unit model.

*9. For indoor use only.

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

*11. For the availability of the function, please contact your local distributor.

*12. Supports the dual set point function

*13. BAC-HD150 ver. 2.10 and later supports the dual set point function.

LOSSNAY remote controller PZ-52SF

■Controllable LOSSNAY Groups	1
■Controllable LOSSNAY unit	16
■Operating	
ON/OFF	○
Mode (automatic ventilation/vent-heat interchange/normal ventilation)	○
Local Permit-Prohibit	N
Fan speed	○
Air flow direction	N
■Scheduling	N
■Recording	N

■Management	○
Group setting	○
Block setting	N
■Status monitoring	
ON/OFF	○
Mode (automatic ventilation/vent-heat interchange/normal ventilation)	○
Local Permit-Prohibit	○
Fan speed	○
Air flow direction	N
Filter sign	○
Error flashing	○
Error code	○

Air conditioner control system interface

LMAP04-E: LonWorks® Interface

Controls up to 50 Groups/ 50 units, for details, refer to its description. ^{*12}

BAC-HD150: BACnet® Interface

Controls up to 50 Groups/ 50 units, up to 150 Groups/ 150 units with three expansion controllers for details, refer to its description. ^{*13}

○: Each group, N: Not Available

Remote Controller





O ptional Parts



OPTIONAL PARTS FOR OUTDOOR UNITS

>>For PQHY series

Description	Model	Remarks
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201~400 (Total capacity of indoor unit)
	CMY-Y202S-G2	401~650 (Total capacity of indoor unit)
		The first branch of P450-P650
Branch pipe (Header)	CMY-Y302S-G2	651 or above (Total capacity of indoor unit)
	CMY-Y104C-G	For 4 branches
	CMY-Y108C-G	For 8 branches
	CMY-Y1010C-G	For 10 branches
Twinning kit	CMY-Y100VBK3	For PQHY-P400~P600YSLM-A
	CMY-Y200VBK2	For PQHY-P700~P900YSLM-A

>>For PQRY series

Description	Model	Remarks
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201~400 (Total capacity of indoor unit)
Twinning kit	CMY-Q100CBK2	For PQRY-P400~P600YSLM-A
	CMY-Q200CBK	For PQRY-P700~P900YSLM-A

>>For PURY series

Description	Model	Remarks
Twinning kit	CMY-R100VBK-A	For PURY-P400~P500YSLM
	CMY-R100VBK2	For PURY-P550~P650YSLM
	CMY-ER100VBK-A	For PURY-EP500YSLM
	CMY-R200VBK2	For PURY-P700~P800YSLM
	CMY-ER200VBK	For PURY-EP550~EP900YSLM
	CMY-R200XLVBK	For PURY-P850~900YSLM
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 1st branch of P450~P650
Relay box	PAC-BH02KTY-E	Relay box should be used together with Base heater PAC-BH-EHT-E.
Base heater	PAC-BH04EHT-E	For S Module
	PAC-BH05EHT-E	For L Module
	PAC-BH06EHT-E	For XL Module

Note : Indoor unit capacities: the capacity of an indoor unit is the same as the number used for its type identification.

OPTIONAL PARTS FOR CONTROL

Model	Description	Model	Description
PAC-SE41TS-E	Remote Temperature Sensor	PAC-YG50ECA	Expansion controller for AG-150A
PAC-SE55RA-E	Remote ON/OFF adaptor for Indoor Unit	PAC-SC51KUA	Power supply unit
PAC-SA88HA-EP	Remote Display Adaptor for Indoor Unit	PAC-YG81TB	Mounting attachment B type for AG-150A wall-mount installations
PAC-SA89TA-EP	Timer Adaptor for remote controller	PAC-YG82TB	Mounting attachment for AE-200E wall-mount installations
PAC-SC37SA-E	Output signal connector	PAC-YG83UTB	Electric box for AG-150A wall-embed installations
PAC-SC36NA-E	Input signal connector	PAC-YG84UTB	Electric box for AE-200E wall-embed installations
PAC-SF46EPA	Transmission booster	PAC-YG85KTB	Mounting attachment A type for AG-150A/PAC-SC51KUA wall-mount installations
LMAPO4-E	LonWorks® and M-NET adapter	PAC-YG86TK	Mounting attachment for AE-200E wall-mount installations
PAC-YG11CDA	Electric amount count software	PAC-YG71CBL	Black surface cover for AG-150A
BAC-HD150	BAC net® and M-NET adapter	PAC-YG72CWL	Surface cover with USB port for AE-200E
PAC-YT51HAA-J	External input/output adapter for AT-50B		
PAC-YG10HA	External input/output adapter for AE-200E / AG-150A		

OPTIONAL EQUIPMENT FOR BC CONTROLLER

BC Controller Model	Junction pipe kit	Branch pipe
CMB-P104V-G1, GB1	CMY-R160-J1	CMY-Y102SS-G2
CMB-P105V-G1		
CMB-P106V-G1		
CMB-P108V-G1, GA1, GB1		
CMB-P1010V-G1, GA1		
CMB-P1013V-G1, GA1		
CMB-P1016V-G1, GA1, HA1, HB1		



Installation information

1. General precautions

1-1. Usage

- ◆The air-conditioning system described in this catalogue is designed for human comfort.
- ◆This product is not designed for preservation of food, animals, plants, precision equipment, or art objects. To prevent quality loss, do not use the product for purposes other than what it is designed for.
- ◆To reduce the risk of water leakage and electric shock, do not use the product for air-conditioning vehicles or vessels.

1-2. Installation environment

- ◆Do not install any unit other than the dedicated unit in a place where the voltage changes a lot, large amounts of mineral oil (e.g., cutting oil) are present, cooking oil may splash, or a large quantity of steam can be generated such as a kitchen.
- ◆Do not install the unit in acidic or alkaline environment.
- ◆Installation should not be performed in the locations exposed to chlorine or other corrosive gases. Avoid near a sewer.
- ◆To reduce the risk of fire, do not install the unit in a place where flammable gas may be leaked or inflammable material is present.
- ◆This air conditioning unit has a built-in microcomputer. Take the noise effects into consideration when deciding the installation position. Especially in a place where antenna or electronic device are installed, it is recommended that the air conditioning unit be installed away from them.
- ◆Install the unit on a solid foundation according to the local safety measures against typhoons, wind gusts, and earthquakes to prevent the unit from being damaged, toppling over, and falling.

1-3. Backup system

- ◆In a place where air conditioner's malfunctions may exert crucial influence, it is recommended to have two or more systems of single outdoor units with multiple indoor units.

1-4. Unit characteristics

- ◆Heat pump efficiency depends on outdoor temperature. In the heating mode, performance drops as the outside air temperature drops. In cold climates, performance can be poor. Warm air would continue to be trapped near the ceiling and the floor level would continue to stay cold. In this case, heat pumps require a supplemental heating system or air circulator. Before purchasing them, consult your local distributor for selecting the unit and system.
- ◆When the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor unit side tends to collect frost, which reduces its heating performance. To remove the frost, Auto-defrost function will be activated and the heating mode will temporarily stop for 3-10 minutes. Heating mode will automatically resume upon completion of defrost process.
- ◆Air conditioner with a heat pump requires time to warm up the whole room after the heating operation begins, because the system circulates warm air in order to warm up the whole room.
- ◆The sound levels were obtained in an anechoic room. The sound levels during actual operation are usually higher than the simulated values due to ambient noise and echoes. Refer to the section on "SOUND LEVELS" in the Data Book for the measurement location.
- ◆Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes even when operating normally. Please consider to avoid location where quietness is required.
For BC controller, it is recommended to unit to be installed in places such as ceilings of corridor, restrooms and plant rooms.
- ◆The total capacity of the connected indoor units can be greater than the capacity of the outdoor unit. However,

when the connected indoor units operate simultaneously, each unit's capacity may become smaller than the rated capacity.

- ◆When the unit is started up for the first time within 12 hours after power on or after power failure, it performs initial startup operation (capacity control operation) to prevent damage to the compressor. The initial startup operation requires 90 minutes maximum to complete, depending on the operation load.

1-5. Relevant equipment

- ◆Use an earth leakage breaker (ELB) with medium sensitivity, and an activation speed of 0.1 second or less.
- ◆Consult your local distributor or a qualified technician when installing an earth leakage breaker.
- ◆If the unit is inverter type, select an earth leakage breaker for handling high harmonic waves and surges.
- ◆Leakage current is generated not only through the air conditioning unit but also through the power wires. Therefore, the leakage current of the main power supply is greater than the total leakage current of each unit. Take into consideration the capacity of the earth leakage breaker or leakage alarm when installing one at the main power supply. To measure the leakage current simply on site, use a measurement tool equipped with a filter, and clamp all the four power wires together. The leakage current measured on the ground wire may not accurate because the leakage current from other systems may be included to the measurement value.
- ◆Do not install a phase advancing capacitor on the unit connected to the same power system with an inverter type unit and its equipment.
- ◆If a large current flows due to the product malfunctions or faulty wiring, both the earth leakage breaker on the product side and the upstream overcurrent breaker may trip almost at the same time. Separate the power system or coordinate all the breakers depending on the system's priority level.

1-6. Unit installation

- ◆Your local distributor or a qualified technician must read the Installation Manual that is provided with each unit carefully before performing installation work.
- ◆Consult your local distributor or a qualified technician when installing the unit. Improper installation by an unqualified person may result in water leakage, electric shock, or fire.
- ◆Ensure there is enough space around each unit.

1-7. Optional accessories

- ◆Only use accessories recommended by Mitsubishi Electric. Consult your local distributor or a qualified technician when installing them. Improper installation by an unqualified person may result in water leakage, electric leakage, system breakdown, or fire.
- ◆Some optional accessories may not be compatible with the air conditioning unit to be used or may not suitable for the installation conditions. Check the compatibility when considering any accessories.
- ◆Note that some optional accessories may affect the air conditioner's external form, appearance, weight, operating sound, and other characteristics.

1-8. Operation/Maintenance

- ◆Read the Instruction Book that is provided with each unit carefully prior to use.
 - ◆Maintenance or cleaning of each unit may be risky and require expertise. Read the Instruction Book to ensure safety.
- Consult your local distributor or a qualified technician when special expertise is required such as when the indoor unit needs to be cleaned.

2. Precautions for Indoor unit

2-1. Operating environment

- ◆The refrigerant (R410A) used for air conditioner is non-toxic and nonflammable. However, if the refrigerant leaks, the oxygen level may drop to harmful levels. If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant should leak.
- ◆If the units operate in the cooling mode at the humidity above 80%, condensation may collect and drip from the indoor units.

2-2. Unit characteristics

- ◆The return air temperature display on the remote controller may differ from the ones on the other thermometers.
- ◆The clock on the remote controller may be displayed with a time lag of approximately one minute every month.
- ◆The temperature using a built-in temperature sensor on the remote controller may differ from the actual room temperature due to the effect of the wall temperature.
- ◆Use a built-in thermostat on the remote controller or a separately-sold thermostat when indoor units installed on or in the ceiling operate the automatic cooling/heating switchover.
- ◆The room temperature may rise drastically due to Thermo OFF in the places where the air conditioning load is large such as computer rooms.
- ◆Be sure to use a regular filter. If an irregular filter is installed, the unit may not operate properly, and the operation noise may increase.
- ◆The room temperature may rise over the preset temperature in the environment where the heating air conditioning load is small.

2-3. Unit installation

- ◆For simultaneous cooling/heating operation type air conditioners (R2, WR2 series), the G-type BC controller cannot be connected to the 16HP outdoor unit model or above, and the G- and GA-type BC controllers cannot be connected to the 28HP model or above. The GB- and HB-type BC controllers (sub) cannot be connected to the outdoor unit directly, and be sure to use them with GA- and HA-type BC controllers (main).
- ◆The insulation for low pressure pipe between the BC controller and outdoor unit shall be at least 20 mm thick. If the unit is installed on the top floor or in a high-temperature, high-humidity environment, thicker insulation may be necessary.
- ◆Do not have any branching points on the downstream of the refrigerant pipe header.
- ◆When a field-supplied external thermistor is installed or when a device for the demand control is used, abnormal stop of the unit or damage of the electromagnetic contactor may occur. Consult your local distributor for details.
- ◆When indoor units operate a fresh air intake, install a filter in the duct (field-supplied) to remove the dust from the air.
- ◆The 4-way or 2-way Airflow Ceiling Cassette Type units that have an outside air inlet can be connected to the duct, but need a booster fan to be installed at site. Refer to the chapter "Indoor Unit" in the Data Book for the available range for fresh air intake volume.
- ◆Operating fresh air intake on the indoor unit may increase the sound pressure level.

3. Precautions for Fresh air intake type indoor unit

3-1. Usage

- ◆ This unit mainly handles the outside air load, and is not designed to maintain the room temperature. Install other air conditioners for handling the air conditioning load in the room.

3-2. Unit characteristics

- ◆ This unit cannot perform the drying operation. The unit will continue the fan operation and blow fresh air (air that is not air-conditioned) when the Heating Thermo-OFF or Cooling Thermo-OFF mode is selected.
- ◆ The fan may stop tentatively when the unit is connected to the simultaneous cooling/heating operation type outdoor unit (R2, WR2 series) or during the defrost cycle.
- ◆ This unit switches the Thermo ON or OFF depending on the room temperature. The outside air is directly supplied into the room during Thermo OFF. Take caution of the cold supply air due to low outside air temperature and of condensation in the room due to high humidity of the outside air.
- ◆ Outside air temperature ranges for the operation must be as follows:
Cooling: 21°C D.B./15.5°C W.B. ~ 43°C D.B./35°C W.B.
Heating: -10°C D.B. ~ 20°C D.B.
The unit is forced to operate Thermo OFF (fan operation) when the outside air temperature is as follows.
Cooling: 21°C D.B. or below; Heating: 20°C D.B. or above
- ◆ Either a remote controller (sold separately) or a remote sensor (sold separately) must be installed to monitor the room temperature.
- ◆ If only this unit is used as an indoor unit, condensation may form at the supply air grill while the unit is operated in the cooling mode. This unit cannot operate dehumidifying.
- ◆ Use the unit in the way that the airflow rate will not exceed the 110% of the rated airflow.

4. Precautions for Outdoor unit/Heat source unit

4-1. Installation environment

- ◆ Outdoor unit with salt-resistant specification is recommended to use in a place where it is subject to salt air.
- ◆ Even when the unit with salt-resistant specification is used, it is not completely protected against corrosion. Be sure to follow the directions or precautions described in Instructions Book and Installation Manual for installation and maintenance. The salt-resistant specification is referred to the guidelines published by JRAIA (JRA9002).
- ◆ Install the unit in a place where the flow of discharge air is not obstructed. If not, the short-cycling of discharge air may occur.
- ◆ Provide proper drainage around the unit base, because the condensation may collect and drip from the outdoor units.
Provide water-proof protection to the floor when installing the units on the rooftop.
- ◆ In a region where snowfall is expected, install the unit so that the outlet faces away from the direction of the wind, and install a snow guard to protect the unit from snow. Install the unit on a base approximately 50 cm higher than the expected snowfall. Close the openings for pipes and wiring, because the ingress of water and small animals may cause equipment damage. If SUS snow guard is used, refer to the Installation Manual that comes with the snow guard and take caution for the installation to avoid the risk of corrosion.
- ◆ When the unit is expected to operate continuously for a long period of time at outside air temperatures of below 0°C, take appropriate measures, such as the use of a unit base heater, to prevent icing on the unit base. (Not applicable to the PUMY series)
- ◆ Install the snow guard so that the outlet/inlet faces away from the direction of the wind.
- ◆ When the snow accumulates approximately 50 cm or more on the snow guard, remove the snow from the guard. Install a roof that is strong enough to withstand snow loads in a place where snow accumulates.
- ◆ Provide proper protection around the outdoor units in places such as schools to avoid the risk of injury.

- ◆A cooling tower and heat source water circuit should be a closed circuit that water is not exposed to the atmosphere.

When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air so that the oxygen from being dissolved in the water should be 1 mg/L or less.

- ◆Install a strainer (50 mesh or more recommended) on the water pipe inlet on the heat source unit.
- ◆Interlock the heat source unit and water circuit pump.
- ◆Note the followings to prevent the freeze bursting of pipe when the heat source unit is installed in a place where the ambient temperature can be 0°C or below.
- ◆Keep the water circulating to prevent it from freezing when the ambient temperature is 0°C or below.
- ◆Before a long period of non use, be sure to purge the water out of the unit.
- ◆Salt-resistant unit is resistant to salt corrosion, but not salt-proof.

Please note the following when installing and maintaining outdoor units in marine atmosphere.

1. Install the salt-resistant unit out of direct exposure to sea breeze, and minimize the exposure to salt water mist.
2. Avoid installing a sun shade over the outdoor unit, so that rain will wash away salt deposits off the unit.
3. Install the unit horizontally to ensure proper water drainage from the base of the unit. Accumulation of water in the base of the outdoor unit will significantly accelerate corrosion.
4. Periodically wash salt deposits off the unit, especially when the unit is installed in a coastal area.
5. Repair all noticeable scratches after installation and during maintenance.
6. Periodically check the unit, and apply anti-rust agent and replace corroded parts as necessary.

4-2. Circulating water

- ◆Follow the guidelines published by JRAIA (JRA-GL02-1994) to check the water quality of the water in the heat source unit regularly.
- ◆A cooling tower and heat source water circuit should be a closed circuit that water is not exposed to the atmosphere.

When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air so that the oxygen from being dissolved in the water should be 1 mg/L or less.

4-3. Unit characteristics

- ◆When the Thermo ON and OFF is frequently repeated on the indoor unit, the operation status of outdoor units may become unstable.

4-4. Relevant equipment

- ◆Provide grounding in accordance with the local regulations.

5. Precautions for Control-related items

5-1. Product specification

- ◆To introduce the MELANS system, a consultation with us is required in advance. Especially to introduce the electricity charge apportioning function or energy-save function, further detailed consultation is required. Consult your local distributor for details.
- ◆Billing calculation for AE-200E, AE-50E, EW-50E, AG-150A, EB-50GU-J, TG-2000A or the billing calculation unit is unique and based on our original method. (Backup operation is included.) It is not based on the metering method, and do not use it for official business purposes. It is not the method that the amount of electric power consumption (input) by air conditioner is calculated. Note that the electric power consumption by air conditioner is apportioned by using the ratio corresponding to the operation status (output) for each air conditioner (indoor unit) in this method.
- ◆In the apportioned billing function for AE-200E, AE-50E, EW-50E, AG-150A, and EB-50GU-J, use separate watthour meters for A-control units, K-control units, and packaged air conditioner for City Multi air conditioners. It is recommended to use an individual watthour meter for the large-capacity indoor unit (with two or more addresses).
- ◆When using the peak cut function on the AE-200E, AE-50E, EW-50E, AG-150A, and EB-50GU-J, note that the control is performed once every minute and it takes time to obtain the effect of the control. Take appropriate measures such as lowering the criterion value. Power consumption may exceed the limits if AE-200E, AE-50E, EW-50E, AG-150A, or EB-50GU-J malfunctions or stops. Provide a back-up remedy as necessary.
- ◆The controllers cannot operate while the indoor unit is OFF. (No error)
Turn ON the power to the indoor unit when operating the controllers.
- ◆When using the interlocked control function on the AE-200E, AE-50E, EW-50E, AG-150A, EB-50GU-J, PAC-YG66DCA, or PAC-YG63MCA, do not use it for the control for the fire prevention or security. (This function should never be used in the way that would put people's lives at risk.) Provide any methods or circuit that allow ON/OFF operation using an external switch in case of failure.

5-2. Installation environment

- ◆The surge protection for the transmission line may be required in areas where lightning strikes frequently occur.
- ◆A receiver for a wireless remote controller may not work properly due to the effect of general lighting. Leave a space of at least 1 m between the general lighting and receiver.
- ◆When the Auto-elevating panel is used and the operation is made by using a wired remote controller, install the wired remote controller to the place where all air conditioners controlled (at least the bottom part of them) can be seen from the wired remote controller. If not, the descending panel may cause damage or injury, and be sure to use a wireless remote controller designed for use with elevating panel (sold separately).
- ◆Install the wired remote controller (switch box) to the place where the following conditions are met.
 - ◆Where installation surface is flat
 - ◆Where the remote controller can detect an accurate room temperature
The temperature sensors that detect a room temperature are installed both on the remote controller and indoor unit. When a room temperature is detected using the sensor on the remote controller, the main remote controller is used to detect a room temperature. In this case, follow the instructions below.
 - ◆Install the controller in a place where it is not subject to the heat source.
(If the remote controller faces direct sunlight or supply air flow direction, the remote controller cannot detect an accurate room temperature.)
 - ◆ Install the controller in a place where an average room temperature can be detected.
 - ◆ Install the controller in a place where no other wires are present around the temperature sensor.
(If other wires are present, the remote controller cannot detect an accurate room temperature.)
- ◆To prevent unauthorized access, always use a security device such as a VPN router when connecting AE-200E, AE-50E, EW-50E, AG-150A, EB-50GU-J, or TG-2000A to the Internet.

Maintenance Equipment

Maintenance cycle [Note that maintenance cycle does not mean guarantee period.]

The following tables are applicable when using equipment under the conditions below.

- Normal use without frequent START/STOPs (The number of START/STOPs is assumed to be less than 6 times per hour in normal use.)
- Operating hours are assumed to be 10 hours per day/2500 hours per year.

If the following conditions are met, the equipment may not be used, or the "maintenance cycle" and "replacement intervals" may be shortened.

- When equipment is used in an environment where the temperature and humidity are high or change dramatically
- When equipment is used in an environment where the power supply fluctuations (the distortion of voltage, frequency, and waveform) are large (Only within the allowable range)
- When equipment is used in an environment where the unit may receive vibration or mechanical shock
- When equipment is used in an environment where dust, salt, toxic gases such as sulfur dioxide and hydrogen sulfide, and oil mist are present
- When equipment starts/stops frequently and operates for a long time (24-hour air conditioning operation)

Table 1. Maintenance cycle

Major components	Checking cycle	Maintenance cycle	Major components	Checking cycle	Maintenance cycle
Compressor	1 year	20,000 hours	Expansion valve	1 year	20,000 hours
Motor (Fan, Louver, drain pump)		20,000 hours	Valve (solenoid valve, four-way valve)		20,000 hours
Bearing		15,000 hours	Sensor (thermistor, pressure sensor)		5 years
Electric board		25,000 hours	Drain pan		8 years
Heat exchanger		5 years			

Note1 This table shows major components. Refer to the maintenance contract for details.

Note2 This maintenance cycle shows a period in which products are expected to require no maintenance. Use this cycle for planning maintenance (budgeting the maintenance expense etc.) Checking/ Maintenance cycle may be shorter than the one on this table depending on the contents of maintenance check contract.

- Sudden unpredictable accident may occur even if check-up is performed.

Replacement cycle of consumable components

[Note that replacement cycle does not mean guarantee period.]

Table 2. Replacement cycle

Major components	Checking cycle	Replacement cycle
Long-life filter	1 year	5 years
High-performance filter		1 year
Fan belt		5,000 hours
Smoothing capacitor		10 years
Fuse		10 years
Crank case heater		8 years

Note1 This table shows major components. Refer to the maintenance contract for details.

Note2 This replacement cycle shows a period in which products are expected to require no replacements. Use this cycle for planning maintenance (budgeting expenses for replacing equipments etc.)



for a greener tomorrow

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



FM33568 / ISO 9001:2008

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

ISO Authorization System

The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



EC97J1227

051

The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).
Registered on March 10, 1998.

⚠ Warning

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
 - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
 - It may also be in violation of applicable laws.
 - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our air-conditioning equipments and heat pumps contain a fluorinated greenhouse gas, R410A.

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