



Heating and Cooling



CITY MULTI

FULL PRODUCT CATALOGUE



R32 CITY MULTI SERIES

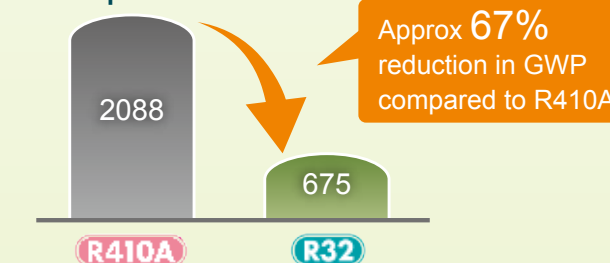
Mitsubishi Electric offers an environmentally conscious VRF system utilizing low GWP R32 refrigerant.

Approx 67% lower GWP^{*1}

The CITY MULTI series using R32 reduce GWP by approx 67% compared to R410A.

^{*1}. Source: IPCC 4th Assessment Report, global warming potential (GWP) 100-year value. Comparison of 2088 (R410A) and 675 (R32).

• Comparison of GWP



Y-Series

Shut-off Valve Kit

AE-C400A

PAR-44MAACAB

*The Shut-off Valve Kit may not be necessary depending on the room capacity. Refer to the related manual for details.

S-Series

PAR-44MAACAB

Shut-off Valve Kit

AE-C400A

PUMY-3phase

PUMY-1phase

R2-Series

BC Controller

AE-C400A

PAR-44MAACAB

Shut-off Valve Kit



The Shut-off Valve Kit is installed in the refrigerant circuit(between the outdoor unit and indoor unit) to minimize refrigerant intrusion into the room from the outdoor unit in the event that a refrigerant leak is detected. Built-in refrigerant leak sensor and duct port, with external fan output capability.

PUMY-1Phase



The PUMY-1 Phase is equipped with built-in safety Shut-off valves, eliminating the need for a Shut-off Valve Kit. In the event of a refrigerant leak, these safety Shut-off valves minimize refrigerant intrusion into the room from the outdoor unit.

Indoor Unit



The indoor unit is equipped with a built-in refrigerant sensor.

PAR-44MAACAB



The PAR-44MAACAB features an alarm function that alerts users to refrigerant leaks and a circuit check function that simplifies installation.

AE-C400A



A pop-up notification is displayed in the event of a refrigerant leak. The addresses displayed on the screen indicate where the refrigerant leak has been detected.

BC Controller



Each port of the BC controller is equipped with a Shut-off valve, eliminating the need for a Shut-off Valve Kit. In the event of a refrigerant leak, these Shut-off valves minimize refrigerant intrusion into the room from the outdoor unit. Built-in refrigerant leak sensor and duct port, with external fan output capability.

*For installation details, please refer to the related manuals.



Mitsubishi Electric's unparalleled heating and cooling systems

Mitsubishi Electric is a globally-renowned household name with a solid reputation for reliable products and services. The company was founded under the present name of Mitsubishi Electric in 1921. Since our founding, we have risen to the pinnacle of the HVAC industry and continue to maintain that position. We are proud of our achievements in providing some of the most energy-efficient systems on the market.

Contents

Outdoor Units	P.10
BC Controllers	P.96
Shut off Valve Kit.....	P.106
Indoor Units	P.107
LOSSNAY System	P.140
Remote Controller	P.151

Air Source System

Y-Series

High efficiency 208-230 V/460 V

Heating or Cooling

Heat pump

6-32 ton

P.36



Hyper-Heat H2i 208-230 V/460 V

Heating or Cooling

Heat pump

6-20 ton

P.50



*Fin guards are optional parts sold separately.

R2-Series

High efficiency 208-230 V/460 V

Simultaneous Heating and Cooling

Heat recovery

6-32 ton

P.59



Hyper-Heat H2i 208-230 V/460 V

Simultaneous Heating and Cooling

Heat recovery

6-20 ton

P.71



*Fin guards are optional parts sold separately.

S-Series

Compact 208-230 V

Heating or Cooling Heat pump

Standard

3-10 ton

P.79



Hyper-Heat H2i 208-230 V

Heating or Cooling Heat pump

Heat recovery

3-5 ton

P.81



Water Source System

WR2-Series

208V-230V/460V

Simultaneous Heating and Cooling

Heat recovery

6-28 ton

P.84



BC controller

P.96



Shut-off Valve Kit

P.106



Indoor Units

Ceiling cassette 4-way airflow type

P.107



Ceiling cassette 1-way airflow type

P.118



Ceiling concealed Low / Medium / High static pressure type

P.121



Ceiling suspended

P.131



Multi-position air handler

P.129



Wall mounted

P.134



Ventilation

LOSSNAY

P.140



Controller

Wired MA remote controller

P.157



Centralized remote controller

P.160





Outdoor Units

Mitsubishi Electric offers a wide range of products to meet heating and cooling needs for both new constructions and existing buildings.

System	Air Source									
Type	Heat pump									
Model name	Y-Series High efficiency 208-230 V					Y-Series High efficiency 460 V				
	PUHY-EM TXU-A	PUHY-GM TXU-A	PUHY-EM TSXU-A			PUHY-EM YXU-A	PUHY-GM YXU-A	PUHY-EM YSXU-A		
Model	size S size L size XL size S L size L L					size S size L size XL size S L size L L				
	modules BTU/h	S	L	XL	S	L	S	L	XL	S
72K EM72	72K					72K				
96K EM96	96K					96K				
120K EM120	120K					120K				
144K EM144		144K					144K			
168K EM168		168K					168K			
192K EM192 GM192		192K	192K				192K	192K		
216K GM216			216K					216K		
240K GM240			240K					240K		
264K EM264				120K	144K				120K	144K
288K EM288					144K 144K					144K 144K
312K EM312					144K 168K					144K 168K
336K EM336					168K 168K					168K 168K
360K EM360					168K 192K					168K 192K
384K EM384					192K 192K					192K 192K

*The numbers in the table indicate the BTU/h, and the combination of S and L modules.

System	Air Source							
Type	Heat pump							
Model name	Y-Series  208-230 V				Y-Series  460 V			
	PUHY-HM TXU-A		PUHY-HM TSXU-A		PUHY-HM YXU-A		PUHY-HM YSXU-A	
Model	size S size L size S S size L L				size S size L size S S size L L			
modules BTU/h	S	L	S	L	S	L	S	L
72K HM72	72K				72K			
96K HM96		96K				96K		
120K HM120		120K				120K		
144K HM144			72K 72K				72K 72K	
192K HM192				96K 96K				96K 96K
240K HM240				120K 120K				120K 120K

*The numbers in the table indicate the BTU/h, and the combination of S and L modules.
*Fin guards are optional parts sold separately.

System	Air Source									
Type	Heat recovery									
Model name	R2-Series High efficiency 208-230 V					R2-Series High efficiency 460 V				
	PURY-EM TXU-A		PURY-GM TXU-A	PURY-EM TSXU-A		PURY-EM YXU-A		PURY-GM YXU-A	PURY-EM YSXU-A	
Model	     size S size L size XL size S L size L L					     size S size L size XL size S L size L L				
modules BTU/h	S	L	XL	S	L	S	L	XL	S	L
72K EM72	72K					72K				
96K EM96	96K					96K				
120K EM120	120K					120K				
144K EM144		144K					144K			
168K EM168		168K					168K			
192K EM192 GM192		192K	192K				192K	192K		
216K GM216			216K					216K		
240K GM240			240K					240K		
264K EM264				120K	144K				120K	144K
288K EM288					144K 144K					144K 144K
312K EM312					144K 168K					144K 168K
336K EM336					168K 168K					168K 168K
360K EM360					168K 192K					168K 192K
384K EM384					192K 192K					192K 192K

*The numbers in the table indicate the BTU/h, and the combination of S and L modules.

System	Air Source							
Type	Heat recovery							
Model name	R2-Series  208-230 V				R2-Series  460 V			
	PURY-HM TXU-A	PURY-HM TSXU-A	PURY-HM YXU-A	PURY-HM YSXU-A	PURY-HM YXU-A	PURY-HM YSXU-A	PURY-HM YXU-A	PURY-HM YSXU-A
Model								
	size 	size 	size  	size  	size 	size 	size  	size  
modules BTU/h	S	L	S	L	S	L	S	L
72K HM72								
96K HM96								
120K HM120								
144K HM144			 				 	
192K HM192				 				 
240K HM240				 				 

*The numbers in the table indicate the BTU/h, and the combination of S and L modules.
*Fin guards are optional parts sold separately.

System	Air Source		
Type	Heat pump		
Model name	S-Series 208-230V		S-Series  208-230V
	PUMY-L NKMU	PUMY-L TBMU	PUMY-HL NKMU
Model			
ton	BTU/h		
3	 M36		
3.5	 M42		
4	 M48		
5	 M60		
6	 M72		
8	 M96		
10	 M120		

System		Water Source	
Type		Heat pump	
Model name		WR2-Series 208-230V	
		PQRY-M_TXU-A	PQRY-M_TSXU-A
Model			
ton	BTU/h		
6	72K M72	72K	
8	96K M96	96K	
10	120K M120	120K	
12	144K M144	144K	72K 72K
14	168K M168	168K	72K 96K
16	192K M192	192K	96K 96K
18	216K M216	216K	96K 120K
20	240K M240	240K	120K 120K
24	288K M288		144K 144K
26	312K M312		144K 168K
28	336K M336		168K 168K

*The box numbers in the table indicate the BTU/h, and the combination of S and L modules.

System		Water Source	
Type		Heat pump	
Model name		WR2-Series 460V	
		PQRY-M_YXU-A	PQRY-M_YSXU-A
Model			
ton	BTU/h		
6	72K M72	72K	
8	96K M96	96K	
10	120K M120	120K	
12	144K M144	144K	72K 72K
14	168K M168	168K	72K 96K
16	192K M192	192K	96K 96K
18	216K M216	216K	96K 120K
20	240K M240	240K	120K 120K
24	288K M288		144K 144K
26	312K M312		144K 168K
28	336K M336		168K 168K

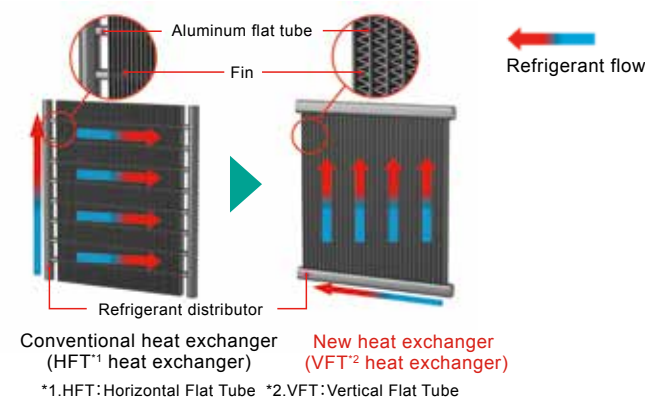
*The box numbers in the table indicate the BTU/h, and the combination of S and L modules.

Contributing to Environmental Friendliness through a New Structure and R32 Refrigerant.



Heat Exchanger with Vertical Aluminum Flat Tubes

The outdoor unit is equipped with a newly designed heat exchanger. By reducing the tube diameter compared to conventional horizontal aluminum flat tubes (HFT¹) and enhancing the performance of the refrigerant distributor a high-density arrangement of numerous aluminum flat tubes has been achieved.



Re-designed Drainage System

The re-designed drainage system for water discharged from the outdoor unit heat exchanger provides enhanced freeze resistance around the base.



Compact Footprint

The compact design provides enhanced flexibility for installation, architectural design, and ease of delivery.

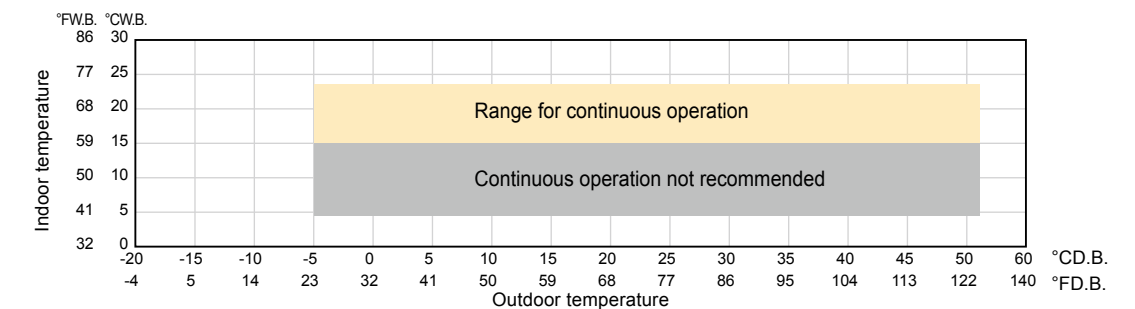
ASTM 2000h

The heat exchanger of the outdoor unit have successfully passed a 2000-hour endurance test in accordance with the ASTM B117 Standard Practice for Operating Salt Spray (Fog) Apparatus, demonstrating the durability of the VFT heat exchanger.

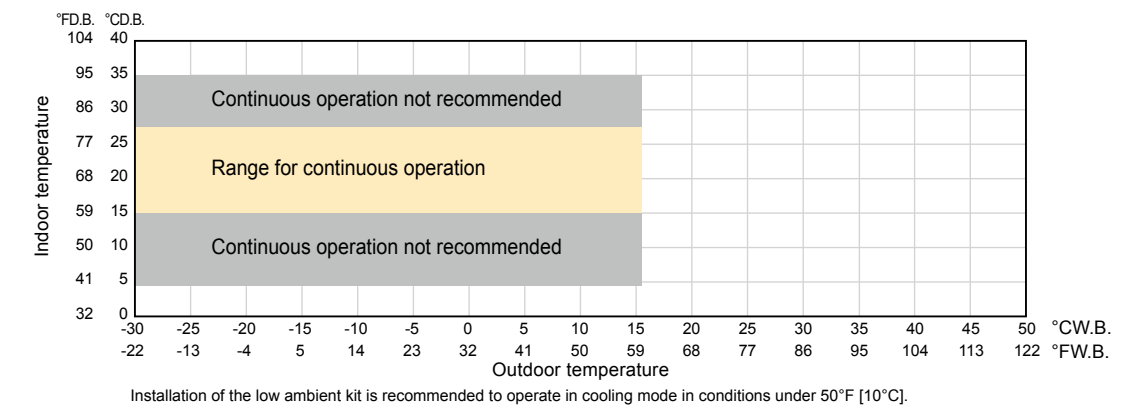
Operation Range

The guaranteed heating operation range for both High Efficiency and Hyper Heating modes has been extended to -30°C while the guaranteed cooling operation range is maintained up to 52°C.

• Cooling



• Heating

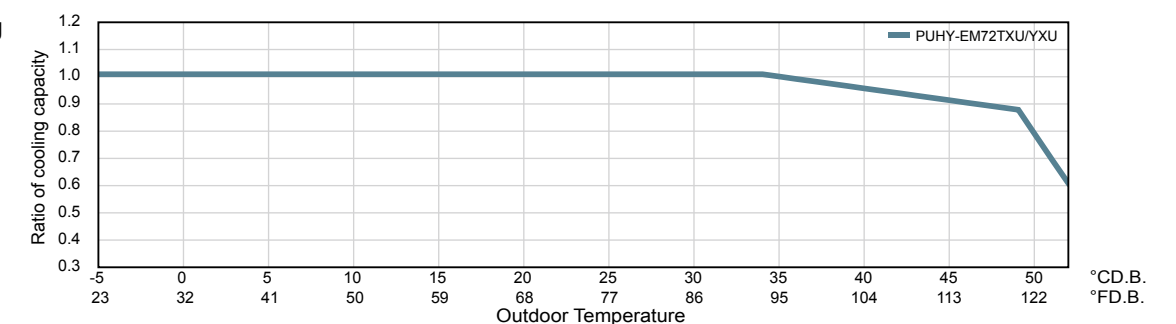


Heating Capacity (Correction by Temperature)

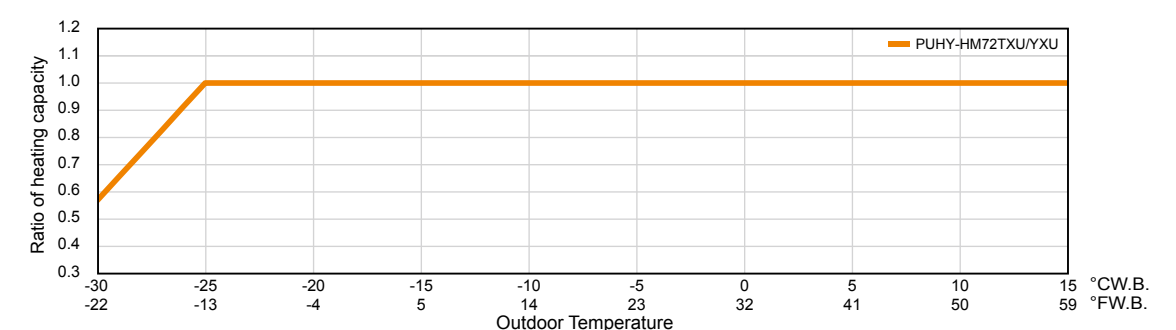
The outdoor units can keep the rated heating capacity at an ambient temperatures of down to -25°C (-13°F). CITY MULTI systems may have different capacities depending on the design temperature. Using the nominal cooling/heating capacity values and the ratios shown below, performance can be estimated at various temperatures.

*If the fresh air intake temperature exceeds 35°C, the noise level may reach or exceed the values specified in the catalog.
*Not to be used in combination with high-static pressure indoor unit.
*Outdoor unit capacity is NOT affected by indoor temperature.
*Outdoor unit power input is affected by both indoor and outdoor temperatures. Please consult our sales office for details.

• Cooling



• Heating



Compressor with centrifugal force canceling mechanism

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

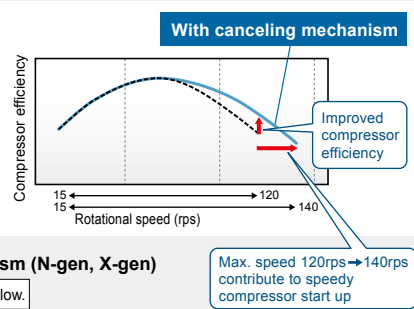
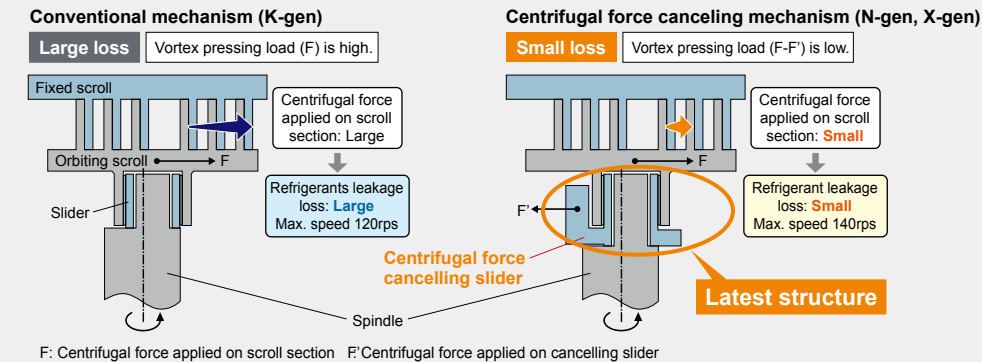
Centrifugal force canceling mechanism

Y-Series (HM) Y-Series (EM) Y-Series (GM) R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

A latest structure (centrifugal force canceling mechanism) has been mounted to suppress the centrifugal force. This mechanism successfully suppresses the centrifugal force generated at the scroll section, reduces refrigerant leakage losses, and increases the compressor efficiency. The maximum rotational speed has been increased from the conventional 120rps to 140rps.

This mechanism also speeds up the start of operation, and enables operations such as preheat defrost operation and the smooth auto-shift startup mode.

* Compressor rotation speed varies depending on the model and conditions.



Upgraded DLC (Diamond Like Carbon) coating for enhanced durability

Y-Series (HM) Y-Series (EM) Y-Series (GM) R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

Based on market operating conditions, the DLC coating is incorporated to improve resistance to wear caused by foreign particles. This helps enhance compressor durability, reliability, and long-term stable operation.

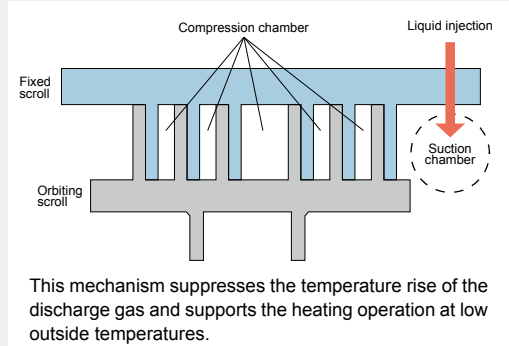
* Note: These compressors are not intended for operation with foreign particle contamination. Proper installation and operating conditions are required.

Powerful compressor with suction chamber injection mechanism

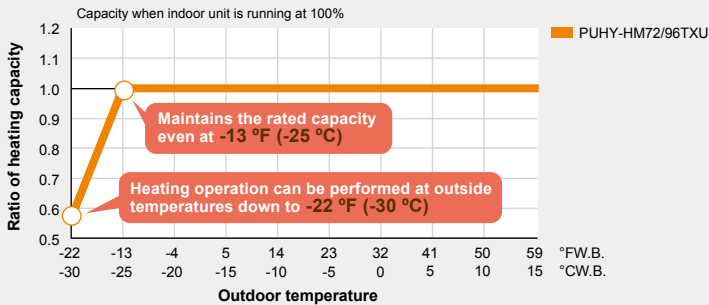
Y-Series (HM) Y-Series (EM) Y-Series (GM) R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

The EM/HM models are equipped with a compressor having a large capacity. They are also equipped with a suction chamber injection mechanism. Owing to this, HM models can perform heating operation even at an outside temperature of -22°F (-30°C), and heating performance at low outside temperatures has been improved so that the rated capacity can be achieved even at an outside temperature of -13°F (-25°C) (HM72/96 models).

• Injection mechanism



• Heating capacity* in high heating performance mode (HM72 model)



* Performance of the High Heating Performance Mode without considering frosting.

Multi-port mechanism

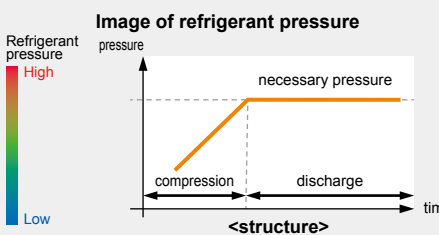
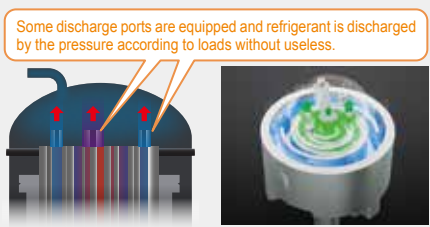
Y-Series (HM) Y-Series (EM) Y-Series (GM) R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

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

Multi-port structure

The compressor is equipped with two sub-ports in addition to the discharge port at the center, and it realizes discharge according to the unit's load.

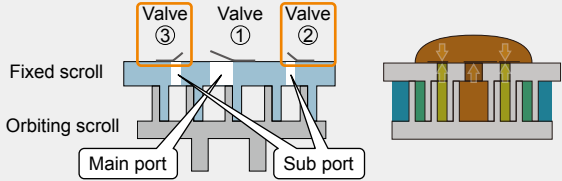
The suppression of over-compression contributes to improve the operation efficiency of partial load.



Multi-port compressor which is equipped with two sub-ports which open and close according to loads, discharges refrigerant from sub-port during the partial load operation.

Multi-port structure

* During the rating operation

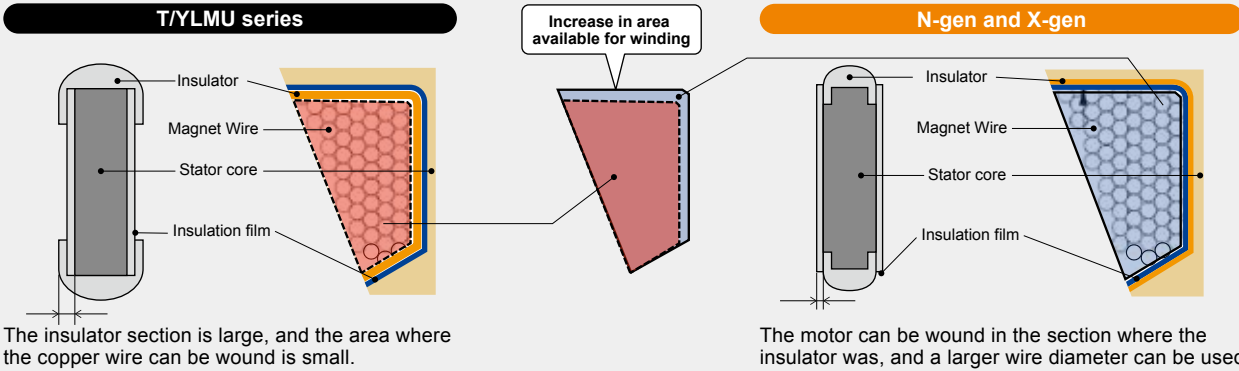


		Operation pattern	
		Partial load	Rating, high pressure difference
Main port	Valve ①	open	open
Sub port	Valve ②	open	close
	Valve ③	open	close

Improved high-efficiency motor

Y-Series (HM) Y-Series (EM) Y-Series (GM) R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

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



Technologies

Inverter-driven compressor technology

Y-Series ^{HM} Y-Series ^{EM} Y-Series ^{GM}
R2-Series ^{HM} R2-Series ^{EM} R2-Series ^{GM} WR2-Series

All CITY MULTI compressors are inverter-driven to precisely match the cooling and heating demands of each building.

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

When an inverter-driven system operates at partial load, the energy efficiency of the system is significantly higher than that of a standard fixed speed, non-inverter system.

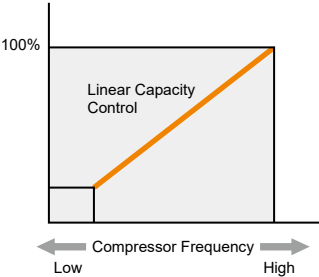
The fixed speed system can only operate at 100%, but partial load conditions prevail for the majority of the time. Therefore, it cannot match the annual efficiency of an inverter-driven system.

With its proven single inverter-driven compressor technology, the CITY MULTI series is favored by the industry for its low starting currents (a mere 8 amps for a 16 ton outdoor unit) and smooth transition across the range of compressor frequencies.

Stable and Smooth Operation



Heating/Cooling Capacity



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

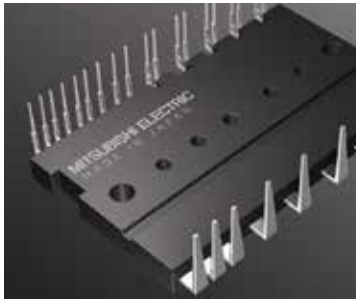


Compressor

Intelligent Power Module (IPM) manufactured by Mitsubishi Electric

Y-Series ^{HM} Y-Series ^{EM} Y-Series ^{GM}
R2-Series ^{HM} R2-Series ^{EM} R2-Series ^{GM} WR2-Series ⁴

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



*1 IPM (compressor) is installed in all modules. SiC elements are used in all 460 V modules IPMs.
IPM (fan) is installed in all modules.

*2 IPM (compressor) is installed in 14 to 20 ton 208-230 V single modules, 8 to 20 ton 460 V single modules and all 460 V combination modules.
SiC elements are used in 14 to 20 ton single module IPMs.
IPM (fan) is installed in all modules.

*3 IPM (compressor) is installed in 14 to 20 ton 208-320 V single modules, 26 to 36 ton 208-320 V combination modules, 8 to 20 ton 460 V single module and all 460 V combination modules. SiC elements are used in 14 to 20 ton 460 V single module and 28 to 36 ton 460 V combination modules IPMs.
IPM (fan) is installed in all modules.

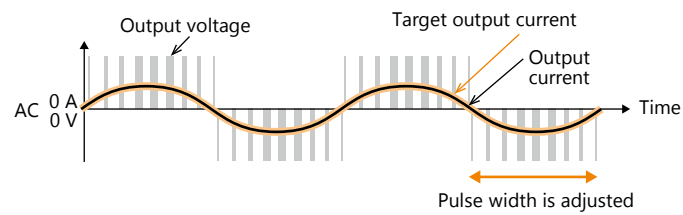
*4 IPM (compressor) is installed in 18 and 20 ton 208-230 V single modules, 12 to 20 ton 460 V single modules and 24 to 28 ton 460 V combination modules.

PWM control

Y-Series ^{HM} Y-Series ^{EM} Y-Series ^{GM}
R2-Series ^{HM} R2-Series ^{EM} R2-Series ^{GM} WR2-Series

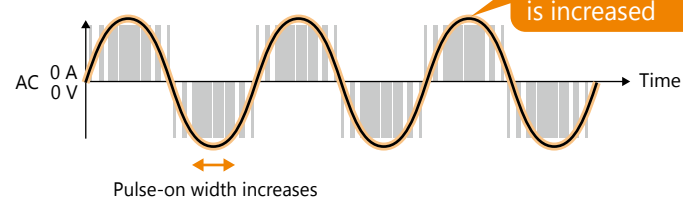
PWM control is used to control the number of motor revolutions according to operational load. It varies the inverter pulse width (electric signal wave occurring over a short period) to control the output. Optimal control of electrical current is required according to operation.

For low loads Does not require a high target output current.



To achieve the target output current, the intervals at which the “pulse” signal is turned on are controlled to adjust the output current. At low load time, the pulse-on width is minimized to save energy.

For high loads Requires a high output current.



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

*The number of compressor rotations differs depending on the usage condition.

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

Wide Lineup

A single large capacity module is available for the high efficiency type.

Comparison of high efficiency modules



Expanded lineup

Y-Series ^{EM} Y-Series ^{GM} Single									
	M72	M96	M120	M144	M168	M192	M216	M240	
T/YNU	S	L	L	L	XL	EXL	EXL	EXL	
T/YXU	S	S	S	L	L	L XL	XL	XL	

Y-Series ^{EM} Combination							
	M264	M288	M312	M336	M360	M384	
T/YNU	S+L+L	S+L+L	S+L+L	L+L+L	L+L+L	L+L+L	
T/YXU	S+L	L+L	L+L	L+L	L+L	L+L	

R2-Series ^{EM} R2-Series ^{GM} Single									
	M72	M96	M120	M144	M168	M192	M216	M240	
T/YNU	S	L	L	L	XL	EXL	EXL	EXL	
T/YXU	S	S	S	L	L	L XL	XL	XL	

R2-Series ^{EM} Combination							
	M264	M288	M312	M336	M384		
T/YNU	L+L	L+L	L+XL	XL+XL	EXL+EXL		
T/YXU	S+L	L+L	L+L	L+L	L+L		

Heat Inter-Changer (HIC) circuit

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM** WR2-Series

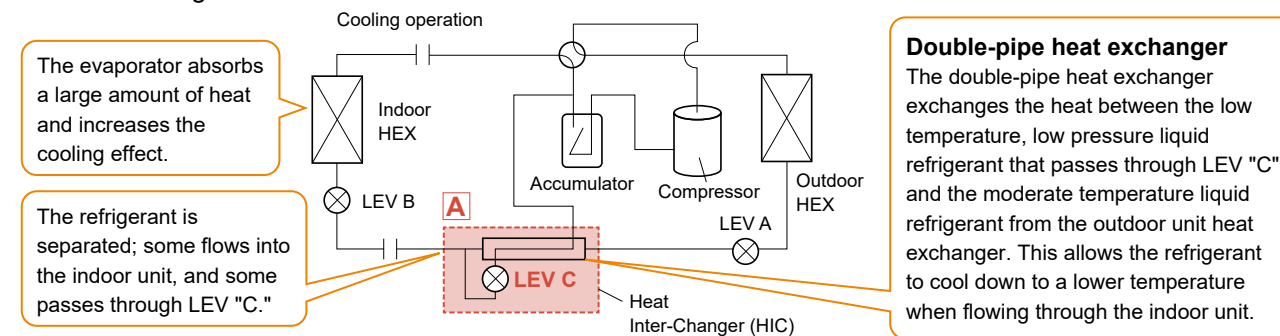
The HIC circuit increases cooling efficiency. This technology raises the degree of supercooling, increasing both cooling capacity and cooling efficiency.

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

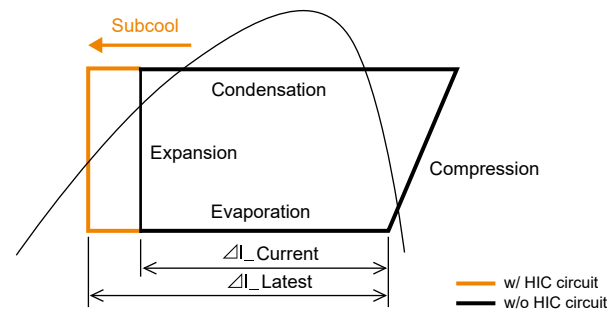
HIC mechanism (an example of Y-series)

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

• HIC circuit diagram



• HIC circuit effect (Image using a Mollier diagram)



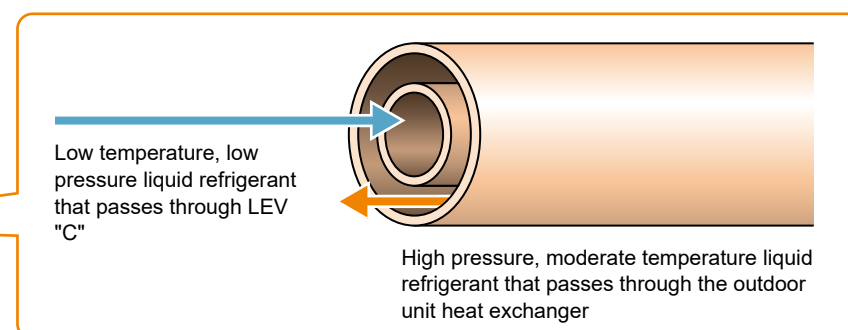
• HIC circuit (Double-pipe heat exchanger)



Heat Inter-Changer (HIC) circuit

* HIC is installed in Y-series outdoor unit and BC controller for R2-series.

• Double-pipe heat exchanger cross section (High-performance grooved pipe)



Metal compressor enclosure

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM**

The compressor is enclosed in a metal casing to reduce noise.

In some models, a sound absorbing material is applied to the metal casing to further reduce noise.

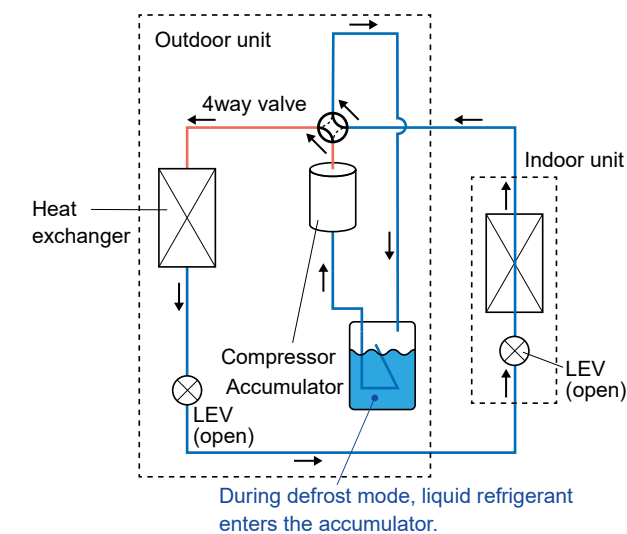
Liquid backless defrost

R2-Series **HM** R2-Series **EM** R2-Series **GM**

R2 series, new defrost method "Liquid-backless defrost" will be implemented. This function is applicable when the outside air temperature is above 32°F(0°C).

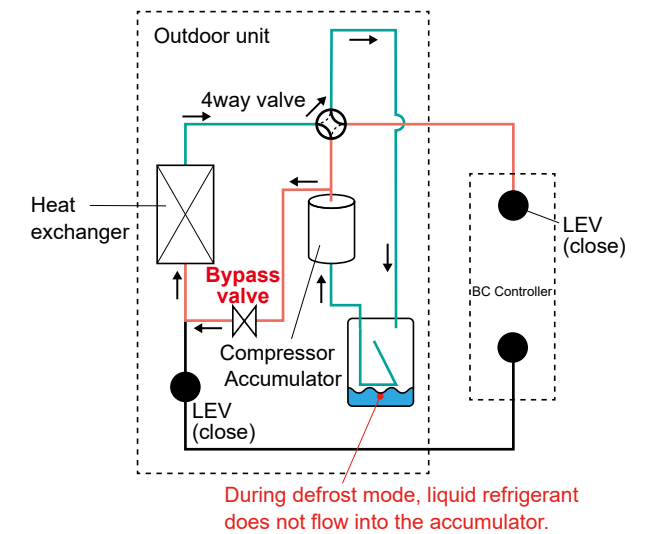
When the ambient temperature is 32°F(0°C) or lower and the system is Y-series, they use defrost method same as current model.(Reverse Defrost)

• Reverse Defrost



By reversing the refrigeration cycle, secure a large amount of heat for defrosting the ODU HEX. On the other hand, liquid refrigerant accumulates in ACC during defrosting, so heating operation after defrosting takes time to start up.

• Liquid-backless Defrost (R2-series)



During defrost mode, the four-way valve remains in heating mode direction, and the bypass valve between compressor and ODU HEX is opened to melt the frost on the HEX.

Heating start-up is accelerated by prevent liquid refrigerant to stagnate in the accumulator.

Newly designed fan

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM**

By adopting a newly designed fan with reduced air resistance, operating noise is reduced compared to the current fan design, contributing to quieter operation across by model and sound evaluation method.

The introduction of a winglet-shaped fan blade minimizes airflow disturbance, helping to suppress noise generation while also supporting improved operating efficiency through smoother and more stable airflow characteristics.

• Fan structure



Functions

COP priority mode

Y-Series (HM) Y-Series (EM) Y-Series (GM)
R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

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

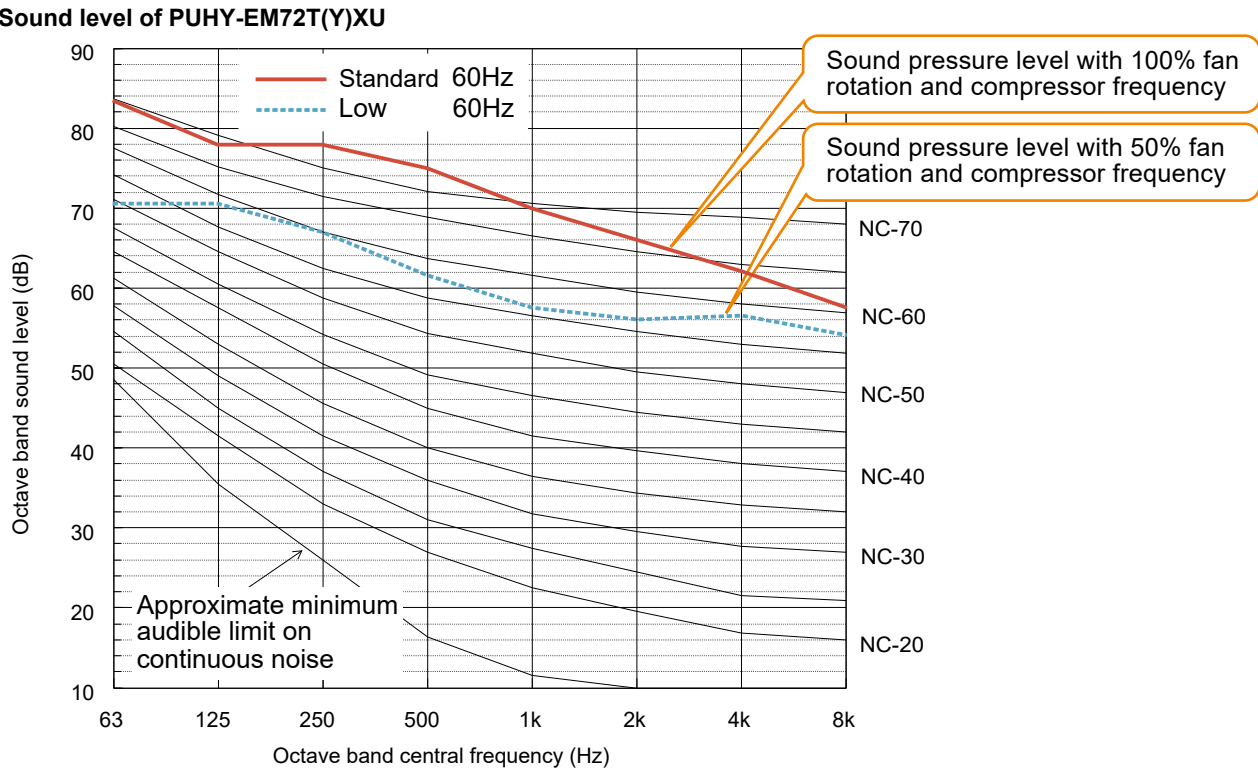
Low noise mode

Y-Series (HM) Y-Series (EM) Y-Series (GM)
R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

This mode reduces noise by limiting the compressor frequency and the number of rotations of the outdoor fan. The user can select a preferred level.

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

- Examples of sound pressure level in low noise mode (PUHY-EM72T(Y)XU <cooling>)



		Octave band central frequency (Hz)								dB(A)
		63	125	250	500	1k	2k	4k	8k	
Standard Cooling	60Hz	83.5	78.0	78.0	75.0	70.0	66.0	62.0	57.5	76.5
Low noise mode	60Hz	70.5	70.5	67.0	61.5	57.5	56.0	56.5	54.0	65.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

System changeover (for heat pumps)

Y-Series (HM) Y-Series (EM) Y-Series (GM)

Normal switching between cooling and heating

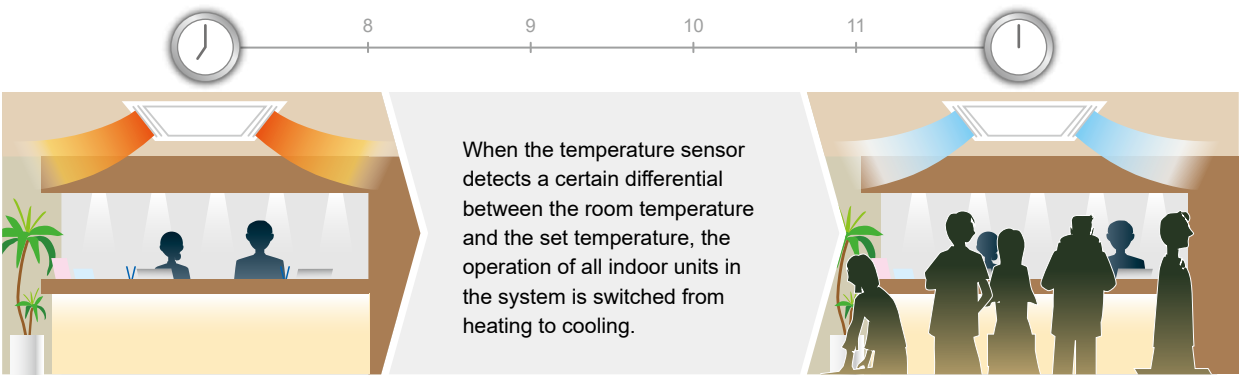
With CITY MULTI's switchable cooling/heating models, in order to switch from cooling to heating, the operation mode of all indoor units performing cooling operation needs to be switched manually.

Using system changeover to switch between cooling and heating

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

- Suitable situations

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

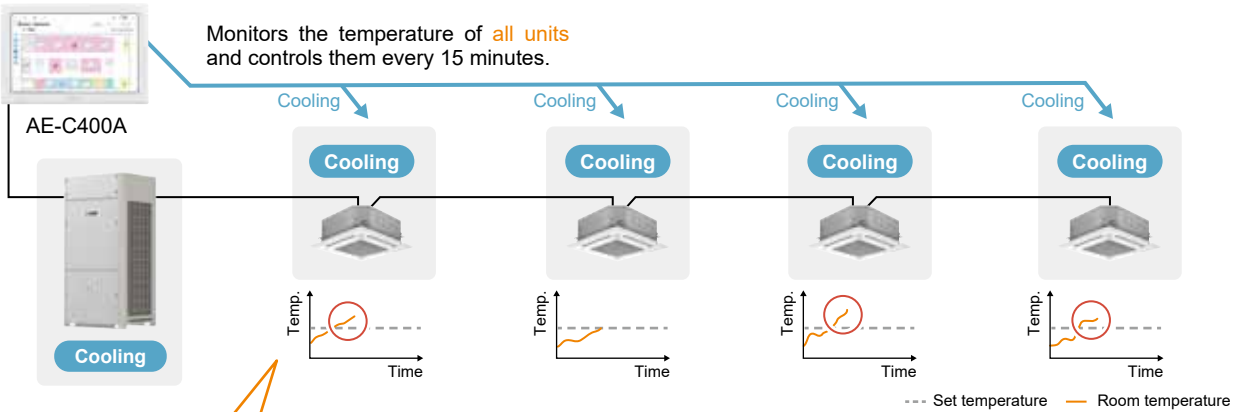


When using the AE-C400A

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

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

- Image of the averaging method



If the room temperature is higher on average than the set temperature, AE-C400A changes the system mode to cooling. Cooling mode or heating mode is decided by the average weighted return air temperature, the set temperature and capacity.

Dual set point

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM** WR2-Series

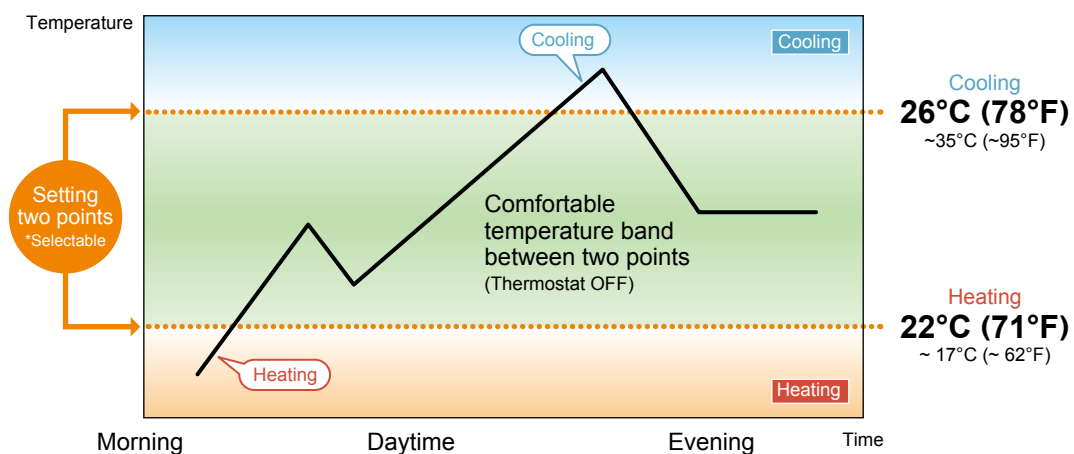
Normally, the desired room temperature is set to the same value for cooling and heating. However, the dual set point function allows different temperatures to be set for cooling and heating. When operation switches from cooling to heating or vice versa, the preset temperature changes accordingly.

Setting dual set points in Auto mode on R2 and WR2 models improves energy efficiency, compared to setting a single set point.

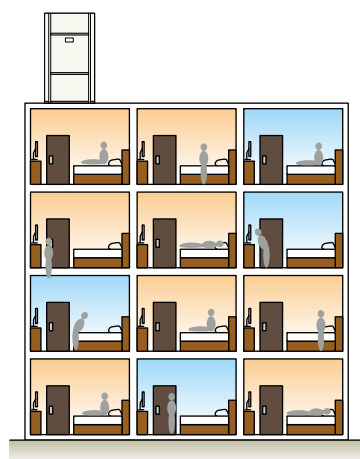
When the operation mode is set to Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, the indoor unit will automatically operate in either the cooling or heating mode and keep the room temperature within the preset range. The outdoor unit does not operate in the comfortable temperature band defined by two temperature points where the thermostat is off. This cuts down on unnecessary operation of the system.

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

• Operation pattern in Auto (dual set point) mode

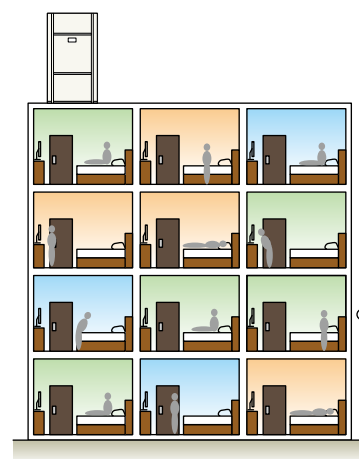


Auto mode with single set point



Auto mode with dual set point

Thermo OFF status is energy saving as the refrigerant stops circulating.



Room temperature stays within the comfortable temperature band.

Energy saving by preventing unnecessary operation

Heating operation Cooling operation Thermo OFF

*For details of the installation restrictions, refer to the DATABOOK.

Evaporating temperature control (during cooling)

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM** WR2-Series

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

Normal mode

The evaporating temperature is kept constant regardless of the load. Even at low loads, the normal evaporating temperature does not change, and energy loss is generated during partial load operation.

Smart evaporating temperature control mode

The evaporating temperature rises and the compressor input is decreased according to the load, resulting in increased operating efficiency. There are two patterns for controlling the evaporating temperature, as follows.

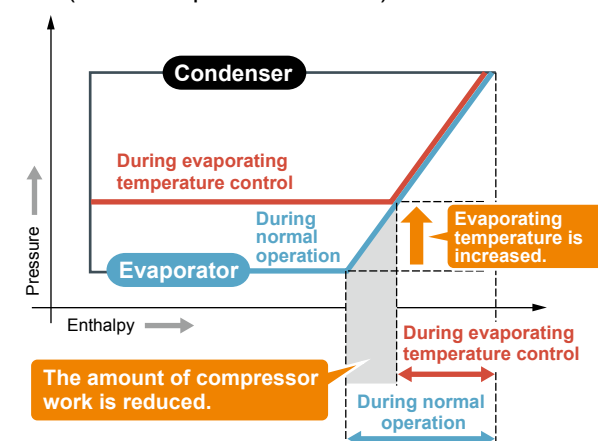
- 1 The evaporating temperature is controlled to be constant regardless of the ΔT . It is set to a value that is higher than the normal evaporating temperature.
- 2 The evaporating temperature is controlled in accordance with the ΔT . It can be selected from 4 control patterns.

* The availability of 1 and 2 varies depending on the model. Refer to the function table.

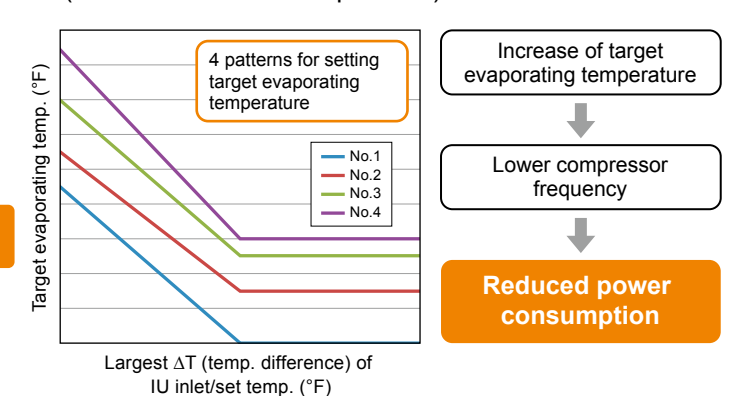
* Changing the evaporating temperature reduces latent heat capacity. Select an appropriate pattern according to the installation conditions.

* The fixed temperature control function and the automatic control shifting function cannot be used simultaneously.

1 Image of evaporating temperature control (Fixed temperature control)



2 Image of evaporating temperature control (Automatic control in 4 patterns)

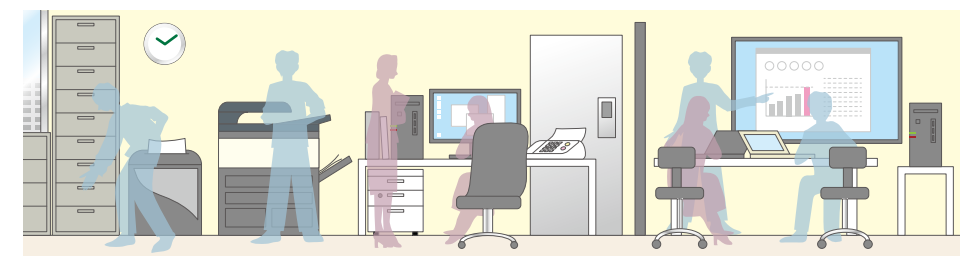


*1 To change the evaporating temperature setting, the setting of the dip switch on the outdoor unit needs to be changed.

*2 When the difference between the indoor unit air-intake temperature and the actual temperature exceeds 1.8°F (1°C), the evaporating temperature based on this difference is constant.

• Suitable situations

- Spaces with constant high temperatures from heat sources.
- During low load times when systems are used for cooling (such as during the morning)

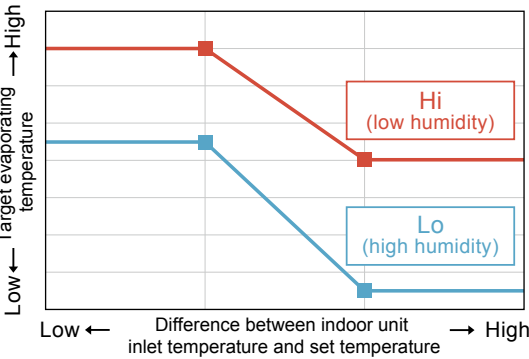


High sensible heat operation (during cooling)

Y-Series (HM) Y-Series (EM) Y-Series (GM)
R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

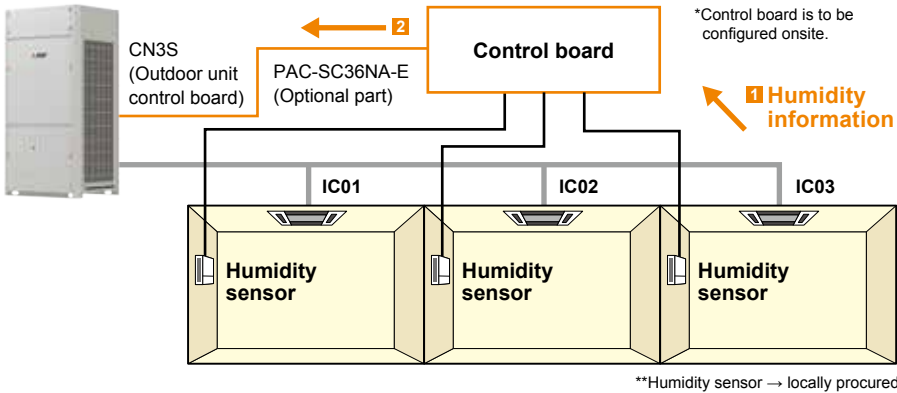
Evaporating temperature is controlled according to room temperature and humidity.

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



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

• Image of installation of locally-procured humidity sensors



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

• Temperature and humidity conditions

	Comfort level in room	Zone	Status of outdoor unit	Evaporating temperature control
Comfortable temperature and humidity High sensible heat operation	Comfortable	Humidity: Comfortable zone	Comfortable and energy-saving operation even at low compressor rotating speed	Temperature of indoor unit refrigerant is kept high. Graph shows high evaporating temperature.
High humidity	A little humid	Humidity: Comfortable zone	Compressor rotates at medium speed to reduce humidity	Temperature of indoor unit refrigerant is slightly reduced. Graph shows medium evaporating temperature.
High temperature and humidity	Uncomfortable	Humidity: Comfortable zone	Compressor rotates at high speed to reduce temperature and humidity	Temperature of indoor unit refrigerant is greatly reduced. Graph shows low evaporating temperature.

Demand control

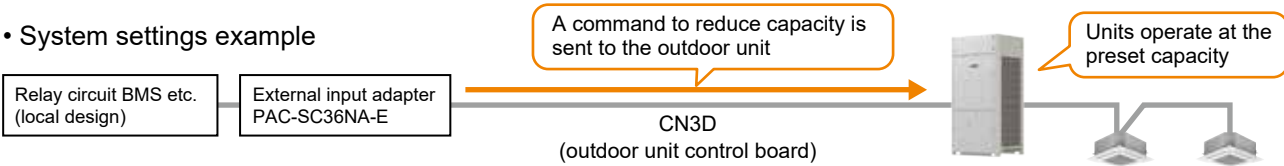
Y-Series (HM) Y-Series (EM) Y-Series (GM)
R2-Series (HM) R2-Series (EM) R2-Series (GM) WR2-Series

This function reduces the capacity of the outdoor unit by way of the external input to the outdoor unit. The used capacity of the outdoor unit can be reduced in steps, with patterns ranging from 2 to 8 control steps. The number of steps that can be set and the corresponding capacity are shown below.
• 2 steps (0-100%) • 4 steps (0-50-75-100%) • 8 steps (0-25-38-50-63-75-88-100%)

Possible usage

When power consumption is centrally-controlled within a building, the system can be made to operate in capacity-save mode by receiving external signals.

• System settings example



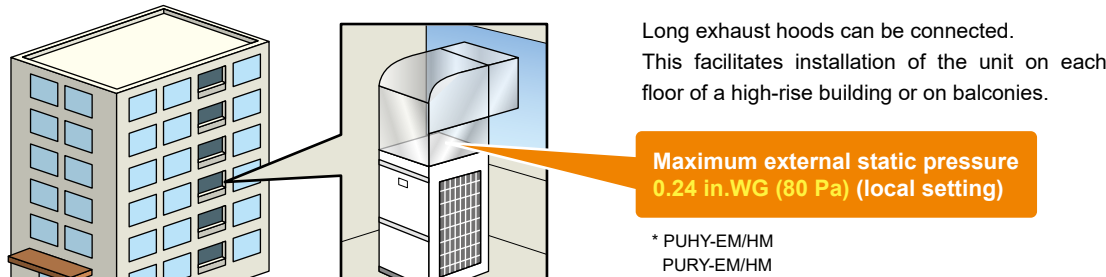
Selectable external static pressure of the outdoor unit

Y-Series (HM) Y-Series (EM) Y-Series (GM)
R2-Series (HM) R2-Series (EM) R2-Series (GM)

The static pressure specification for the outdoor unit can be selected (0 in.WG, 0.12 in.WG, 0.24 in.WG, 0.32 in.WG/0,30, 60, 80 Pa).

This facilitates installation of the unit on each floor of a high-rise building or on balconies.

- * The static pressure that can be set varies depending on the model.
- * Noise level and power consumption vary depending on the static pressure setting.
- * For details of the installation restrictions, refer to the DATABOOK.
- * EM 192 and EM 168 (Heating mode), disable to use high static pressure setting due to the fan frequency limit.



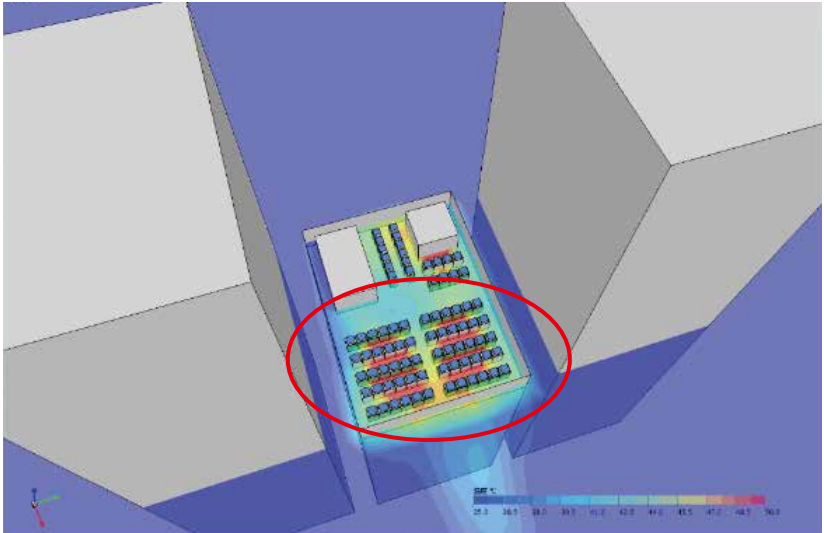
Operation at high outside temperatures

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM**

In built-up areas where the passage of air is blocked, the warm air that is discharged from the outdoor units may cause high temperatures around the units. Guaranteed operation range of up to 125°F (52°C), so it can be used reliably even if the outdoor air temperature rises abnormally during the hot summer daytime.

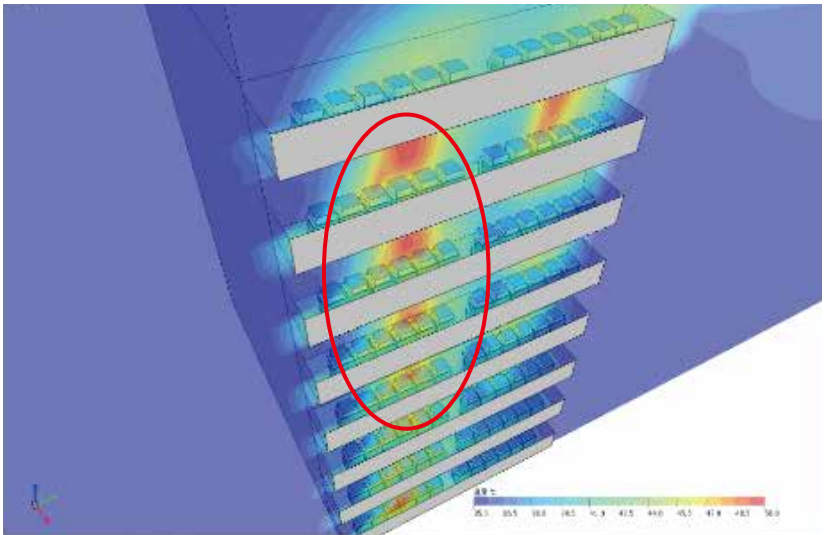
Example of flow analysis Conditions: Outdoor air temperature = 95°F (35°C) (DB), Room temperature = 80°F (27°C) (DB)

Built-up area with buildings and outdoor units



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

Installation on each floor a high-rise building



When the outdoor units are installed on the balconies, the high temperature air discharged from the units may be trapped in the balcony.

- Models for use in outside temperatures of up to 125°F (52°C)



PUHY-EM/GM/HM
PURY-EM/GM/HM

Rotation control

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM** **WR2-Series**

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



Emergency operation mode

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM** **WR2-Series**

Emergency operation is possible with an indoor unit remote control. With the combination model, if one outdoor unit malfunctions, the other outdoor units temporarily performs emergency operation.



Rest assured in case of unit failure

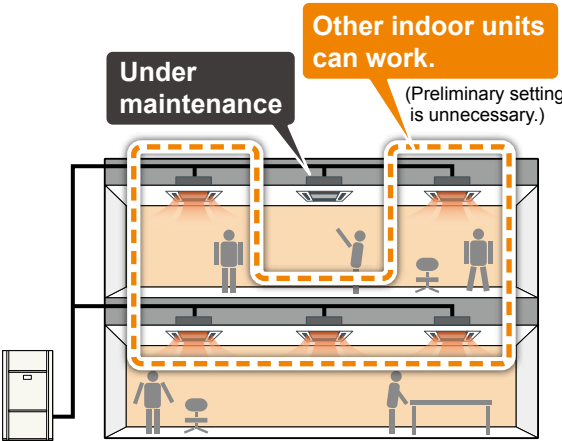


Emergency operation can be performed easily with a local remote controller.

Individual LEV control

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM** **WR2-Series**

Even if one of the indoor units stops for repair, the LEV of the indoor unit can be closed so that the other indoor units can continue to operate. (No preliminary setting is necessary.)

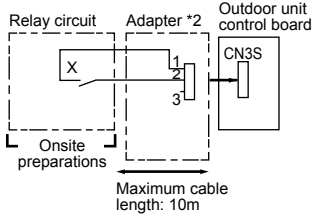


Snow sensor setting

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM**

When a snow buildup signal is received from the snow sensor (procured locally), or when ambient temperature drops below 41°F (5°C) (detected with TH7), the outdoor unit is automatically switched to ventilation operation. This activates the outdoor unit fan to prevent snow from building up on the unit.

- Snow sensor setting example
Snow sensor (CN3S)



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

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

Maintenance data retrieval via USB

Y-Series **HM** Y-Series **EM** Y-Series **GM**
R2-Series **HM** R2-Series **EM** R2-Series **GM**

Operation data was retrieved from conventional models using the maintenance tool. On the latest model, the data can be retrieved quickly via USB*1. It is unnecessary to carry the personal computer in which the maintenance tool has been installed, reducing field operation time and improving convenience. Software can be rewritten via USB*2.

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

What is Water Source?

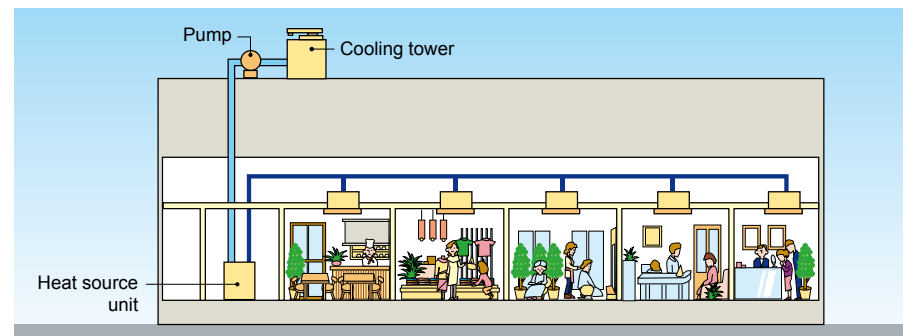
A unique system from Mitsubishi Electric

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

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



Water Source systems are ideal for use in temperate and cooler climates, since it does not involve heat exchange with the outside air.



Water Source systems can be used even in buildings that are taller than 164 ft (50 m) 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 possible. (WR2-Series)

Water cooled systems are recommended for use in buildings that have the following heating and cooling needs.

- Buildings that require year-round cooling
 - 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

Double heat recovery (WR2-Series)

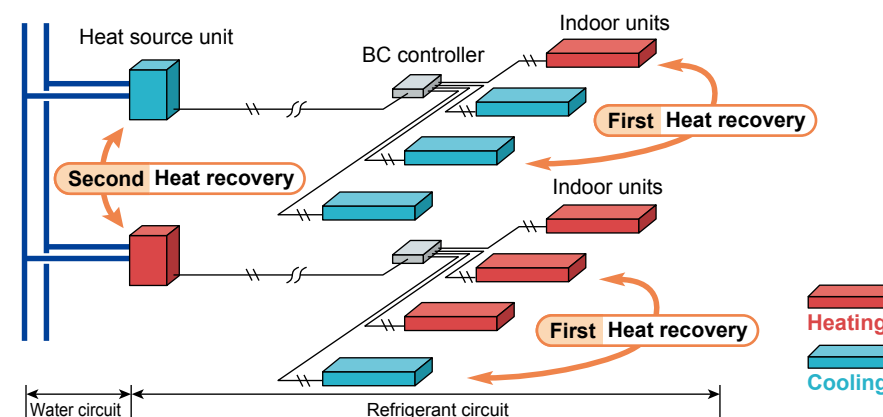
Mitsubishi Electric now offers double heat recovery operation.

The first heat recovery is within the refrigerant system. Heat is recovered between the indoor units to allow simultaneous cooling and heating operation.

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

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

- Double heat recovery (WR2)



Water Source system

A wide range of capacities are available, from single modules capable of up to M240 and combination modules up to M336.

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



<WR2-Series>

Single-module units available up to M240

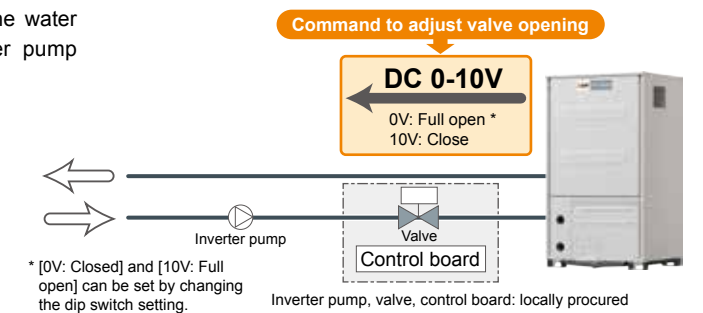
		M72	M96	M120	M144	M168	M192	M216	M240	M288	M312	M336
PQRY-M T(Y)XU-A	Single	✓	✓	✓	✓	✓	✓	✓	✓			
PQRY-M T(Y)SXU-A	Combination				✓	✓	✓	✓	✓	✓	✓	✓

Water flow rate control

System energy consumption can be improved by changing the water flow volume during partial load and thereby reducing water pump consumption.

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

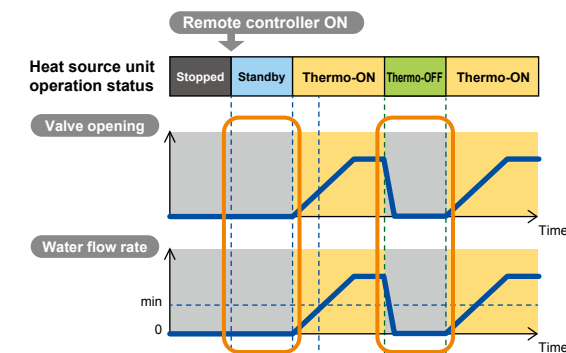
*When using "water flow rate control," the pump needs to be controlled by inverter.
*Pump interlock is required.



Power-save function

The water control valve is closed during standby and Thermo-OFF to reduce the circulating water flow rate and reduce the power consumption of the pump.

Power-save settings for the pump



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

Y-Series

Heating or Cooling Heat pump

- Optional partsP.37
- Specifications

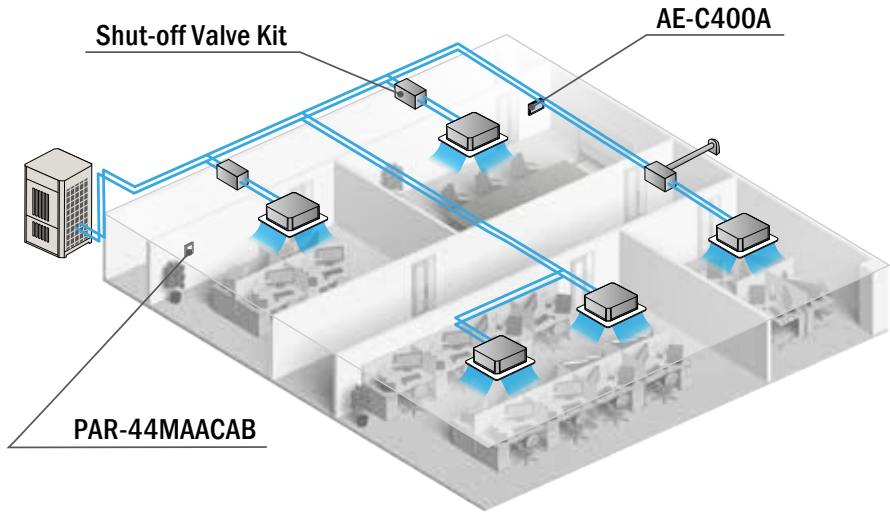
208-230V	High efficiency	PUHY-E(G)M T/Y(S)XU-A	P.36 - P.49
460V	H2i	PUHY-HM T/Y(S)XU-A	P.50 - P.55



A two-pipe zoned system designed for heat pump operation

The CITY MULTI Y-Series makes use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilizes an inverter-driven compressor for effective energy use. With a wide lineup of indoor units connected to a flexible piping system, the CITY MULTI Series can be configured to suit diverse applications. Up to 50 indoor units can be connected with up to 130% connected capacity to maximize engineering design options. This feature allows easy zone control area with convenient individual controllers.

- Installation image (Y-Series)



*For details of the installation restrictions, refer to the DATABOOK.

• System Pipe Lengths

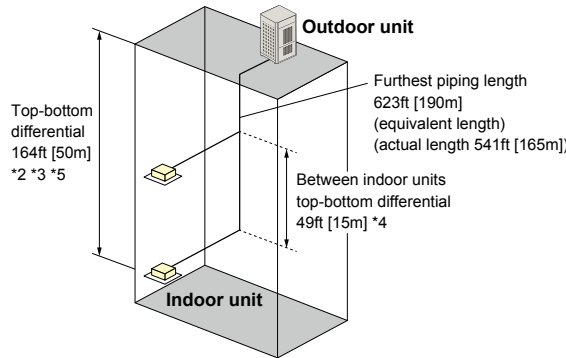
EM72-384T/Y(S)XU
GM192-240T/YXU
HM72-240T/Y(S)XU

Refrigerant Piping Lengths Maximum feet [Meters]

Total length 3,280 [1,000]
Maximum allowable length 541 (623 equivalent)
[165 (190)]
Farthest indoor from first joint 131 [40]*1

Vertical differentials between units Maximum feet [Meters]

Indoor/outdoor (outdoor higher) 164 [50]*2
Indoor/outdoor (outdoor lower) 131 [40]*3
Indoor/indoor 49 [15]*4



*1 295ft [90m] is available. When the piping length exceeds 131ft [40m], use one size larger liquid pipe starting with the section of piping where 131ft [40m] is exceeded and all piping after that point.
*2 370ft [113m] is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*3 196ft [60m] is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*4 98ft [30m] is available. If the height difference between indoor units exceeds 49ft [15m] (but does not exceed 98ft [30m]), use one size larger pipes for indoor unit liquid pipes.
*5 When the outdoor unit is installed below the indoor unit, top-bottom differential is 131ft [40m].

Optional parts

- For High efficiency, H2i

Description	Model	Remarks
Twinning kit	CMY-Y100CBK3	For PUHY-HM144-240T/YSXU-A
	CMY-Y200CBK2	For PUHY-EM288-384T/YSXU-A
	CMY-Y300CBK2	For PUHY-EM264T/YSXU-A
Branch pipe (Joint)	CMY-Y102SS-G2	72 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	73-144 (Total capacity of indoor unit)
	CMY-Y202S-G2	145-240 (Total capacity of indoor unit)
	CMY-Y302S-G2	241 or above (Total capacity of indoor unit)
Branch pipe (Header)	CMY-Y104C-G	For 4 branches
	CMY-Y108C-G	For 8 branches
	CMY-Y1010C-G	For 10 branches
Fin Guard *1	PAC-FG03S-E	For side surface of HM model (a set of two pieces)
	PAC-FG04B-E	For rear surface of PUHY-HM72T/YXU-A
	PAC-FG05B-E	For rear surface of PUHY-HM96-120T/YXU-A
Shut off valve kit	CMR-M100KT1-NA	

*1. EM and GM models are standard equipped with fin guard.

Y-Series High efficiency R32

PUHY-EM TXU-A (208-230V)



Outdoor Model			PUHY-EM72TXU-A			PUHY-EM96TXU-A			PUHY-EM120TXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	72,000			96,000			120,000		
		kW	21.1			28.1			35.2		
		Power input	kW			4.42			6.19		
		(208-230) Current input	A			13.6-12.3			19.0-17.2		
(Rated)		BTU/h	69,000			92,000			115,000		
		kW	20.2			27.0			33.7		
		Power input	kW			4.32			4.52		
		(208-230) Current input	A			13.3-12.0			13.9-12.6		
Temp. range of cooling		Indoor	W.B. 59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)		
		Outdoor	D.B. 23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)		
Heating capacity (Nominal)	*2	BTU/h	80,000			108,000			135,000		
		kW	23.4			31.7			39.6		
		Power input	kW			5.10			7.21		
		(208-230) Current input	A			15.7-14.2			22.2-20.1		
(Rated)		BTU/h	76,000			103,000			129,000		
		kW	22.3			30.2			37.8		
		Power input	kW			4.51			5.01		
		(208-230) Current input	A			13.9-12.5			15.4-13.9		
Temp. range of heating		Indoor	D.B. 59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)		
		Outdoor	W.B. -22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)		
Indoor unit connectable		Total capacity	50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity		
		Model/Maximum quantity	M04~M72/14			M04~M96/19			M04~M96/23		
Sound power level (measured in anechoic room)		*3 dB <A>	76.5 / 78.5			77.5 / 80.0			80.0 / 83.5		
Refrigerant piping diameter		Liquid pipe	in. (mm)			3/8 Braze (9.52 Braze)			3/8 Braze (9.52 Braze), the farthest pipe length ≥15.8" (12.7 Braze), the farthest pipe length ≥40")		
		Gas pipe	in. (mm)			7/8 Braze (22.2 Braze)			1-1/8 Braze (28.58 Braze)		
Minimum Circuit Ampacity (208/230)		A	40/40			40/40			51/51		
Maximum Overcurrent Protection (208/230)		A	60/60			60/60			80/80		
FAN		*4	Type x Quantity			Propeller fan×1			Propeller fan×1		
		Airflow rate	cfm			6,356			7,062		
			m³/min			180			200		
			L/s			3,000			3,333		
		Control, Driving mechanism	Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor		
		Motor output	kW			0.92			0.92		
		External static press.	0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)		
Compressor		Type x Quantity	Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1		
		Starting method	Inverter			Inverter			Inverter		
		Motor output	kW			3.5			7.3		
		Case heater	kW			0.045			0.045		
		Lubricant	MEL46EH			MEL46EH			MEL46EH		
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16		
		mm	1,798 x 920 x 747			1,798 x 920 x 747			1,798 x 920 x 747		
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
		Inverter circuit (COMP/FAN)			Over-current protection			Over-current protection			
		Compressor			-			-			
		Fan motor			-			-			
Refrigerant		Type x original charge	R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)		
		Control	LEV and HIC circuit			LEV and HIC circuit			LEV and HIC circuit		
Net weight		lbs (kg)	598 (271)			598 (271)			606 (275)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube			Copper pipe , tube in tube			Copper pipe , tube in tube		
Defrosting method			Reverse defrost			Reverse defrost			Reverse defrost		
Optional parts		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		
		Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB. (26.7 °C DB / 19.4 °C WB.), Outdoor: 95 °F DB. (35 °C DB.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB. (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB. (8.3 °C DB / 6.1 °C WB.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).

Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)

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

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series High efficiency R32

PUHY-EM TXU-A (208-230V)



Outdoor Model			PUHY-EM144TXU-A		PUHY-EM168TXU-A		PUHY-EM192TXU-A					
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted			
Power source			3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz					
Cooling capacity (Nominal)	*1	BTU/h	144,000		168,000		192,000					
		kW	42.2		49.2		56.3					
		Power input	kW		10.22		12.80		15.48			
		(208-230) Current input	A		31.5-28.5		39.4-35.7		47.7-43.1			
(Rated)		BTU/h	138,000		160,000		184,000					
		kW	40.4		46.9		53.9					
		Power input	kW		10.17		12.80		15.45		15.54	
		(208-230) Current input	A		31.3-28.3		39.3-35.5		47.6-43.0		47.9-43.3	
Temp. range of cooling		Indoor	W.B. 59.0~75.0°FWB (15.0~24.0°CWB)		59.0~75.0°FWB (15.0~24.0°CWB)		59.0~75.0°FWB (15.0~24.0°CWB)					
		Outdoor	D.B. 23.0~126.0°FDB (-5.0~52.0°CDB)		23.0~126.0°FDB (-5.0~52.0°CDB)		23.0~126.0°FDB (-5.0~52.0°CDB)					
Heating capacity (Nominal)	*2	BTU/h	160,000		188,000		192,000					
		kW	46.9		55.1		56.3					
		Power input	kW		11.49		14.46		14.69			
		(208-230) Current input	A		35.4-32.0		44.5-40.3		45.3-40.9			
(Rated)		BTU/h	152,000		178,000		184,000					
		kW	44.5		52.2		53.9					
		Power input	kW		10.37		11.39		13.01		13.92	
		(208-230) Current input	A		31.9-28.9		35.1-31.7		40.1-36.2		42.9-38.8	
Temp. range of heating		Indoor	D.B. 59.0~81.0°FDB (15.0~27.0°CDB)		59.0~81.0°FDB (15.0~27.0°CDB)		59.0~81.0°FDB (15.0~27.0°CDB)					
		Outdoor	W.B. -22.0~60.0°FWB (-30.0~15.5°CWB)		-22.0~60.0°FWB (-30.0~15.5°CWB)		-22.0~60.0°FWB (-30.0~15.5°CWB)					
Indoor unit connectable			Total capacity		50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity					
Model/Maximum quantity			M04~M96/28		M04~M96/33		M04~M96/38					
Sound power level (measured in anechoic room) *3			dB <A> 80.5 / 82.5		80.5 / 88.5		87.5 / 89.5					
Refrigerant piping diameter		Liquid pipe	in. (mm) 1/2 Braze (12.7 Braze)		5/8 Braze (15.88 Braze)		5/8 Braze (15.88 Braze)					
		Gas pipe	in. (mm) 1-1/8 Braze (28.58 Braze)		1-1/8 Braze (28.58 Braze)		1-1/8 Braze (28.58 Braze)					
Minimum Circuit Ampacity (208/230)			A 60/60		60/60		60/60					
Maximum Overcurrent Protection (208/230)			A 100/100		100/100		100/100					
FAN	*4	Type x Quantity	Propeller fan×2		Propeller fan×2		Propeller fan×2					
		Airflow rate	cfm 8,474		10,593		11,123					
			m³/min 240		300		315					
			L/s 4,000		5,000		5,250					
		Control, Driving mechanism	Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor					
		Motor output	kW 0.46		0.46		0.46					
		External static press.	0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)					
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1					
	Starting method		Inverter		Inverter		Inverter					
	Motor output		kW 8.9		11.4		12.2					
	Case heater		kW 0.048		0.048		0.048					
	Lubricant		MEL46EH		MEL46EH		MEL46EH					
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>					
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16					
		mm	1,798 x 1,217 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747					
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)					
	Inverter circuit (COMP./FAN)		Over-current protection		Over-current protection		Over-current protection					
	Compressor		-		-		-					
	Fan motor		-		-		-					
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)					
	Control		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit					
Net weight		lbs (kg)	708 (321)		708 (321)		708 (321)					
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes					
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube					
Defrosting method			Reverse defrost		Reverse defrost		Reverse defrost					
Optional parts	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2					
	Header		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G					
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.					

Y-Series

High efficiency

R32

PUHY-EM TSXU-A (208-230V)



Outdoor Model			PUHY-EM264TSXU-A		PUHY-EM288TSXU-A	
Indoor Model			Non-Ducted	Ducted	Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU/h	264,000		288,000	
		kW	77.4		84.4	
	(208-230)	Power input	19.09		21.22	
		Current input	58.8-53.2		65.4-59.1	
(Rated)		BTU/h	252,000		276,000	
		kW	73.9		80.9	
	(208-230)	Power input	19.40	19.60	21.74	21.85
		Current input	59.8-54.1	60.4-54.6	67.0-60.6	67.3-60.9
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)	
	Outdoor	D.B.	23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)	
Heating capacity (Nominal)	*2	BTU/h	295,000		323,000	
		kW	86.5		94.7	
	(208-230)	Power input	21.17		23.21	
		Current input	65.2-59.0		71.5-64.7	
(Rated)		BTU/h	280,000		304,000	
		kW	82.1		89.1	
	(208-230)	Power input	21.00	21.07	23.48	23.37
		Current input	64.7-58.5	64.9-58.7	72.4-65.4	72.0-65.1
Temp. range of heating	Indoor	D.B.	59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)	
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)	
Indoor unit connectable			Total capacity 50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity	
Sound power level (measured in anechoic room)			Model/Maximum quantity M04~M96/50		M04~M96/50	
Refrigerant			Liquid pipe 3/4 Braze (19.05 Braze)		3/4 Braze (19.05 Braze)	
piping diameter			Gas pipe 1-3/8 Braze (34.93 Braze)		1-3/8 Braze (34.93 Braze)	

Set Model

Model			PUHY-EM144TXU-A		PUHY-EM120TXU-A		PUHY-EM144TXU-A		PUHY-EM144TXU-A		
Minimum Circuit Ampacity (208/230)			A	60/60	51/51	60/60	60/60				
Maximum Overcurrent Protection (208/230)			A	100/100	80/80	100/100	100/100				
FAN	*4	Type x Quantity		Propeller fan×2		Propeller fan×1		Propeller fan×2			
		Airflow rate	cfm	8,474		7,062		8,474			
			m³/min	240		200		240			
			L/s	4,000		3,333		4,000			
Control, Driving mechanism			Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		
Motor output			kW		0.46		0.46		0.46		
External static press.			0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		
	Starting method		Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	8.9		7.3		8.9		8.9		
	Case heater	kW	0.048		0.045		0.048		0.048		
Lubricant			MEL46EH		MEL46EH		MEL46EH		MEL46EH		
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 36-1/4 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		
		mm	1,798 x 1,217 x 747		1,798 x 920 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747		
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP/FAN)		Over-current protection		Over-current protection		Over-current protection		Over-current protection		
	Compressor		-		-		-		-		
	Fan motor		-		-		-		-		
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)		R32 x 11lbs 11oz (5.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		
	Control		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		
Net weight		lbs (kg)	708 (321)		606 (275)		708 (321)		708 (321)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		
Pipe between unit and distributor		Liquid pipe	in. (mm)	1/2 (12.7) Brazed		3/8 (9.52) Brazed		1/2 (12.7) Brazed		1/2 (12.7) Brazed	
		Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Defrosting method			Reverse defrost		Reverse defrost		Reverse defrost		Reverse defrost		
Optional parts		Twinning kit	CMY-Y300CBK2		CMY-Y300CBK2		CMY-Y200CBK2		CMY-Y200CBK2		
		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		
		Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °FD.B./67 °FW.B. (26.7 °CD.B./19.4 °CW.B.), Outdoor: 95 °FD.B. (35 °CD.B.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °FD.B. (21.1 °CD.B.), Outdoor: 47 °FD.B./43 °FW.B. (8.3 °CD.B./6.1 °CW.B.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)

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

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series

High efficiency

R32

PUHY-EM TSXU-A (208-230V)



Outdoor Model			PUHY-EM312TSXU-A		PUHY-EM336TSXU-A	
Indoor Model			Non-Ducted	Ducted	Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU/h	312,000		336,000	
		kW	91.4		98.5	
	(208-230)	Power input	24.31		27.76	
		Current input	74.9-67.8		85.6-77.4	
(Rated)		BTU/h	298,000		320,000	
		kW	87.3		93.8	
	(208-230)	Power input	24.85	24.89	28.09	28.00
		Current input	76.6-69.3	76.7-69.4	86.6-78.3	86.3-78.0
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)	
	Outdoor	D.B.	23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)	
Heating capacity (Nominal)	*2	BTU/h	350,000		378,000	
		kW	102.6		110.8	
	(208-230)	Power input	26.17		29.17	
		Current input	80.7-72.9		89.9-81.3	
(Rated)		BTU/h	334,000		360,000	
		kW	97.9		105.5	
	(208-230)	Power input	26.26	26.27	29.95	28.93
		Current input	80.9-73.2	81.0-73.2	92.3-83.5	89.2-80.6
Temp. range of heating	Indoor	D.B.	59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)	
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)	
Indoor unit connectable			Total capacity 50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity	
Sound power level (measured in anechoic room)			Model/Maximum quantity M04~M96/50		M04~M96/50	
Refrigerant			Liquid pipe 3/4 Braze (19.05 Braze)		3/4 Braze (19.05 Braze)	
piping diameter			Gas pipe 1-3/8 Braze (34.93 Braze)		1-5/8 Braze (41.28 Braze)	

Set Model

Model			PUHY-EM168TXU-A		PUHY-EM144TXU-A		PUHY-EM168TXU-A		PUHY-EM168TXU-A	
Minimum Circuit Ampacity (208/230)			A	60/60	60/60	60/60	60/60	60/60	60/60	
Maximum Overcurrent Protection (208/230)			A	100/100	100/100	100/100	100/100	100/100		
FAN	*4	Type x Quantity	Propeller fan×2		Propeller fan×2		Propeller fan×2		Propeller fan×2	
		Airflow rate	cfm	10,593	8,474	10,593	10,593			
			m³/min	300	240	300	300			
			L/s	5,000	4,000	5,000	5,000			
Control, Driving mechanism			Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor	
Motor output			kW		0.46		0.46		0.46	
External static press.			0 in WG (OPa)		0 in WG (OPa)		0 in WG (OPa)		0 in WG (OPa)	
Compressor		Type x Quantity	Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1	
		Starting method		Inverter		Inverter		Inverter		
		Motor output	kW		11.4		11.4		11.4	
		Case heater	kW		0.048		0.048		0.048	
Lubricant			MEL46EH		MEL46EH		MEL46EH		MEL46EH	
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16	
		mm	1,798 x 1,217 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747	
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)	
	Inverter circuit (COMP./FAN)		Over-current protection		Over-current protection		Over-current protection		Over-current protection	
	Compressor		-		-		-		-	
	Fan motor		-		-		-		-	
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)	
	Control		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit	
Net weight		lbs (kg)	708 (321)		708 (321)		708 (321)		708 (321)	
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube	
Pipe between unit and distributor		Liquid pipe in. (mm)	5/8 (15.88) Brazed		1/2 (12.7) Brazed		5/8 (15.88) Brazed		5/8 (15.88) Brazed	
		Gas pipe in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Defrosting method			Reverse defrost				Reverse defrost			
Optional parts		Twinning kit	CMY-Y200CBK2				CMY-Y200CBK2			
		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2				CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			
		Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G				CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Y-Series

High efficiency

R32

PUHY-EM TSXU-A (208-230V)



Outdoor Model			PUHY-EM360TSXU-A		PUHY-EM384TSXU-A	
Indoor Model			Non-Ducted	Ducted	Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU/h	360,000		384,000	
		kW	105.5		112.5	
	(208-230)	Power input	30.66		34.25	
		Current input	A		105.6-95.5	
(Rated)		BTU/h	344,000		368,000	
		kW	100.8		107.9	
	(208-230)	Power input	31.30	30.68	34.83	33.75
		Current input	96.5-87.2	94.6-85.5	107.4-97.1	104.0-94.1
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)	
	Outdoor	D.B.	23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)	
Heating capacity (Nominal)	*2	BTU/h	380,000		384,000	
		kW	111.4		112.5	
	(208-230)	Power input	29.27		30.17	
		Current input	A		93.0-84.1	
(Rated)		BTU/h	362,000		368,000	
		kW	106.1		107.9	
	(208-230)	Power input	29.41	28.80	30.04	28.78
		Current input	90.7-82.0	88.8-80.3	92.6-83.7	88.7-80.2
Temp. range of heating	Indoor	D.B.	59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)	
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)	
Indoor unit connectable			50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity	
Sound power level (measured in anechoic room) *3			M04~M96/50		M04~M96/50	
Refrigerant piping diameter			3/4 Brazed (19.05 Brazed)		3/4 Brazed (19.05 Brazed)	
			1-5/8 Brazed (41.28 Brazed)		1-5/8 Brazed (41.28 Brazed)	

Set Model

Model			PUHY-EM192TXU-A		PUHY-EM168TXU-A		PUHY-EM192TXU-A		PUHY-EM192TXU-A			
Minimum Circuit Ampacity (208/230)			A		60/60		60/60		60/60			
Maximum Overcurrent Protection (208/230)			A		100/100		100/100		100/100			
FAN	*4	Type x Quantity		Propeller fan×2		Propeller fan×2		Propeller fan×2		Propeller fan×2		
		Airflow rate	cfm		11,123		10,593		11,123		11,123	
			m ³ /min		315		300		315		315	
			L/s		5,250		5,000		5,250		5,250	
	Control, Driving mechanism		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor			
Motor output			kW		0.46		0.46		0.46			
External static press.			0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)			
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1			
	Starting method		Inverter		Inverter		Inverter		Inverter			
	Motor output		kW		12.2		12.2		12.2			
	Case heater		kW		0.048		0.048		0.048			
	Lubricant		MEL46EH		MEL46EH		MEL46EH		MEL46EH			
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D			in.		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16			
			mm		1,798 x 1,217 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747			
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
	Inverter circuit (COMP/FAN)		Over-current protection		Over-current protection		Over-current protection		Over-current protection			
	Compressor		-		-		-		-			
	Fan motor		-		-		-		-			
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)			
	Control		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit			
Net weight			lbs (kg)		708 (321)		708 (321)		708 (321)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube			
Pipe between unit and distributor	Liquid pipe		in. (mm)		5/8 (15.88) Brazed		5/8 (15.88) Brazed		5/8 (15.88) Brazed			
	Gas pipe		in. (mm)		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed			
Defrosting method			Reverse defrost		Reverse defrost		Reverse defrost		Reverse defrost			
Optional parts			Twinning kit		CMY-Y200CBK2		CMY-Y200CBK2		CMY-Y200CBK2			
			Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			
			Header		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.					

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °FD.B./67 °FW.B. (26.7 °CD.B./19.4 °CW.B.), Outdoor: 95 °FD.B. (35 °CD.B.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °FD.B. (21.1 °CD.B.), Outdoor: 47 °FD.B./43 °FW.B. (8.3 °CD.B./6.1 °CW.B.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)

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

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series

High efficiency

R32

PUHY-GM TXU-A (208-230V)



Outdoor Model			PUHY-GM192TXU-A		PUHY-GM216TXU-A		PUHY-GM240TXU-A					
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted			
Power source			3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz		3-phase 3-wire 208-230V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	192,000		216,000		240,000					
		kW	56.3		63.3		70.3					
	(208-230)	Power input	13.60		15.85		18.46					
		Current input	A		41.9-37.9		48.8-44.2		56.9-51.4			
(Rated)		BTU/h	184,000		206,000		230,000					
		kW	53.9		60.4		67.4					
	(208-230)	Power input	13.25		13.30		15.18		15.25			
		Current input	A		40.8-36.9		41.0-37.0		46.8-42.3		47.0-42.5	
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)			
	Outdoor	D.B.	23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	215,000		243,000		260,000					
		kW	63.0		71.2		76.2					
	(208-230)	Power input	14.39		16.81		21.04					
		Current input	A		44.3-40.1		51.8-46.8		64.8-58.6			
(Rated)		BTU/h	204,000		232,000		258,000					
		kW	59.8		68.0		75.6					
	(208-230)	Power input	14.33		14.40		16.90		16.93			
		Current input	A		44.1-39.9		44.4-40.1		52.1-47.1		52.2-47.2	
Temp. range of heating	Indoor	D.B.	59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)			
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)			
Indoor unit connectable			50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity			
Model/Maximum quantity			M04~M96/38		M04~M96/43		M04~M96/47					
Sound power level (measured in anechoic room) *3			dB <A>		80.0 / 84.5		81.5 / 86.5		82.5 / 89.5			
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 Brazed (15.88 Brazed)		5/8 Brazed (15.88 Brazed)		5/8 Brazed (15.88 Brazed)					
	Gas pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)		1-3/8 Brazed (34.93 Brazed)		1-3/8 Brazed (34.93 Brazed)					
Minimum Circuit Ampacity (208/230)			A		82/80		92/91		102/102			
Maximum Overcurrent Protection (208/230)			A		110/110		125/125		125/125			
FAN	*4	Type x Quantity	Propeller fan×2		Propeller fan×2		Propeller fan×2					
		Airflow rate	cfm	12,712		13,418		14,654				
				m³/min	360		380		415			
					L/s	6,000		6,333		6,917		
Control, Driving mechanism			Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor					
Motor output			kW		0.92 + 0.92		0.92 + 0.92					
External static press.			0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)					
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×2		Inverter scroll hermetic compressor ×2		Inverter scroll hermetic compressor ×2						
	Starting method	Inverter		Inverter		Inverter						
	Motor output	kW		5.1 + 5.1		6.1 + 6.1		7.1 + 7.1				
	Case heater	kW		0.045 + 0.045		0.045 + 0.045		0.045 + 0.045				
Lubricant			MEL46EH		MEL46EH		MEL46EH					
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>					
External dimension H x W x D		in.	79-3/4 x 76-7/8 x 29-1/2		79-3/4 x 76-7/8 x 29-1/2		79-3/4 x 76-7/8 x 29-1/2					
		mm	2,025 x 1,952 x 748		2,025 x 1,952 x 748		2,025 x 1,952 x 748					
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)						
	Inverter circuit (COMP./FAN)	Over-current protection		Over-current protection		Over-current protection						
	Compressor	-		-		-						
	Fan motor	-		-		-						
Refrigerant	Type x original charge	R32 x 23lbs 6oz (10.6kg)		R32 x 23lbs 6oz (10.6kg)		R32 x 23lbs 6oz (10.6kg)						
	Control	LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit						
Net weight	lbs (kg)	1,305 (592)		1,314 (596)		1,321 (599)						
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes						
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube						
Defrosting method		Reverse defrost		Reverse defrost		Reverse defrost						
Optional parts	Joint	CMY-Y102SS-G2, CMY-Y102LS-G2 , CMY-Y202S-G2, CMY-Y302S-G2		CMY-Y102SS-G2, CMY-Y102LS-G2 , CMY-Y202S-G2, CMY-Y302S-G2		CMY-Y102SS-G2, CMY-Y102LS-G2 , CMY-Y202S-G2, CMY-Y302S-G2						
	Header	CMY-Y104C-G, CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G, CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G, CMY-Y108C-G , CMY-Y1010C-G						
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.						

Y-Series

High efficiency

R32

PUHY-EM YXU-A (460V)



Outdoor Model			PUHY-EM72YXU-A			PUHY-EM96YXU-A			PUHY-EM120YXU-A				
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted		
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz				
Cooling capacity (Nominal)	*1	BTU/h	72,000			96,000			120,000				
		kW	21.1			28.1			35.2				
	Power input	kW	4.42			6.19			8.39				
		(460)	Current input	A	6.1			8.6			11.7		
	(Rated)	BTU/h	69,000			92,000			115,000				
		kW	20.2			27.0			33.7				
	(460)	Power input	kW	4.32	4.52		6.08	6.27		8.28	8.40		
		Current input	A	6.0	6.3		8.4	8.7		11.5	11.7		
	Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			
		Outdoor	D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	80,000			108,000			135,000				
		kW	23.4			31.7			39.6				
	Power input	kW	5.10			7.21			9.64				
		(460)	Current input	A	7.1			10.0			13.4		
	(Rated)	BTU/h	76,000			103,000			129,000				
		kW	22.3			30.2			37.8				
	(460)	Power input	kW	4.51	5.01		6.40	7.02		8.69	9.23		
		Current input	A	6.2	6.9		8.9	9.7		12.1	12.8		
	Temp. range of heating	Indoor	D.B.	59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			
		Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			
Indoor unit connectable		Total capacity		50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			
Sound power level (measured in anechoic room)		*3	dB <A>		76.5 / 78.5			77.5 / 80.0			80.0 / 83.5		
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/8 Braze (9.52 Braze)			3/8 Braze (1/2 Braze, the farthest pipe length ≥3-9/16) (9.52 Braze (12.7 Braze , the farthest pipe length ≥90))			3/8 Braze (1/2 Braze, the farthest pipe length ≥1-5/8) (9.52 Braze (12.7 Braze , the farthest pipe length ≥40))				
	Gas pipe	in. (mm)	7/8 Braze (22.2 Braze)			7/8 Braze (22.2 Braze)			1-1/8 Braze (28.58 Braze)				
Minimum Circuit Ampacity		A	22			22			27				
Maximum Overcurrent Protection		A	35			35			45				
FAN	*4	Type x Quantity		Propeller fan×1			Propeller fan×1			Propeller fan×1			
		Airflow rate	cfm	6,356			6,532			7,062			
				m³/min	180			185			200		
					L/s	3,000			3,083			3,333	
		Control, Driving mechanism		Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			
		Motor output		kW 0.92			0.92			0.92			
		External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
		Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1		
Starting method			Inverter			Inverter			Inverter				
Motor output			kW 3.5			5.3			7.3				
Case heater			kW 0.045			0.045			0.045				
Lubricant			MEL46EH			MEL46EH			MEL46EH				
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>				
External dimension H x W x D		in.	70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16				
		mm	1,798 x 920 x 747			1,798 x 920 x 747			1,798 x 920 x 747				
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)				
	Inverter circuit (COMP./FAN)		Over-current protection			Over-current protection			Over-current protection				
	Compressor		-			-			-				
	Fan motor		-			-			-				
Refrigerant	Type x original charge		R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)				
	Control		LEV and HIC circuit			LEV and HIC circuit			LEV and HIC circuit				
Net weight		lbs (kg)	628 (285)			628 (285)			631 (286)				
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes				
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube			Copper pipe , tube in tube			Copper pipe , tube in tube				
Defrosting method			Reverse defrost			Reverse defrost			Reverse defrost				
Optional parts		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2				
		Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB. (26.7 °C DB / 19.4 °C WB.), Outdoor: 95 °F DB. (35 °C DB.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB. (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB. (8.3 °C DB / 6.1 °C WB.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)

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

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series

High efficiency

R32

PUHY-EM YXU-A (460V)



Outdoor Model			PUHY-EM144YXU-A			PUHY-EM168YXU-A			PUHY-EM192YXU-A			
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	144,000			168,000			192,000			
		kW	42.2			49.2			56.3			
	(460)	Power input	10.22			12.80			15.48			
		Current input	14.2			17.8			21.5			
	(Rated)	BTU/h	138,000			160,000			184,000			
		kW	40.4			46.9			53.9			
(460)	Power input	kW	10.17	10.32		12.76	12.80		15.45	15.54		
	Current input	A	14.1	14.3		17.7	17.8		21.5	21.6		
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			
	Outdoor	D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	160,000			188,000			192,000			
		kW	46.9			55.1			56.3			
	(460)	Power input	11.49			14.46			14.69			
		Current input	16.0			20.1			20.4			
	(Rated)	BTU/h	152,000			178,000			184,000			
		kW	44.5			52.2			53.9			
(460)	Power input	kW	10.37	11.39		13.01	13.92		13.36	14.17		
	Current input	A	14.4	15.8		18.1	19.4		18.6	19.7		
Temp. range of heating	Indoor	D.B.	59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			
Indoor unit connectable		Total capacity		50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity		
Model/Maximum quantity		M04~M96/28			M04~M96/33			M04~M96/38				
Sound power level (measured in anechoic room) *3		dB <A>		80.5 / 82.5			80.5 / 88.5			87.5 / 89.5		
Refrigerant piping diameter	Liquid pipe	in. (mm)	1/2 Brazed (12.7 Brazed)			5/8 Brazed (15.88 Brazed)			5/8 Brazed (15.88 Brazed)			
	Gas pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)			
Minimum Circuit Ampacity		A	31			31			31			
Maximum Overcurrent Protection		A	50			50			50			
FAN	*4	Type x Quantity	Propeller fan×2			Propeller fan×2			Propeller fan×2			
		Airflow rate	cfm	8,474			10,593			11,123		
	m³/min		240			300			315			
	L/s		4,000			5,000			5,250			
	Control, Driving mechanism	Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor				
	Motor output	kW	0.46			0.46			0.46			
External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)				
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1				
	Starting method	Inverter			Inverter			Inverter				
	Motor output	kW	8.9			11.4			12.2			
	Case heater	kW	0.048			0.048			0.048			
	Lubricant	MEL46EH			MEL46EH			MEL46EH				
External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>				
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16			
		mm	1,798 x 1,217 x 747			1,798 x 1,217 x 747			1,798 x 1,217 x 747			
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)				
	Inverter circuit (COMP./FAN)	Over-current protection			Over-current protection			Over-current protection				
	Compressor	-			-			-				
	Fan motor	-			-			-				
Refrigerant	Type x original charge	R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)				
Control		LEV and HIC circuit			LEV and HIC circuit			LEV and HIC circuit				
Net weight	lbs (kg)		741 (336)			741 (336)			741 (336)			
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes				
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe , tube in tube			Copper pipe , tube in tube			Copper pipe , tube in tube				
Defrosting method		Reverse defrost			Reverse defrost			Reverse defrost				
Optional parts	Joint	CMY-Y102SS-G2, CMY-Y102LS-G2 , CMY-Y202S-G2, CMY-Y302S-G2			CMY-Y102SS-G2, CMY-Y102LS-G2 , CMY-Y202S-G2, CMY-Y302S-G2			CMY-Y102SS-G2, CMY-Y102LS-G2 , CMY-Y202S-G2, CMY-Y302S-G2				
	Header	CMY-Y104C-G, CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G, CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G, CMY-Y108C-G , CMY-Y1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

Y-Series

High efficiency

R32

PUHY-EM YSXU-A (460V)



Outdoor Model			PUHY-EM264YSXU-A				PUHY-EM288YSXU-A					
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted			
Power source			3-phase 3-wire 460V±10% 60Hz				3-phase 3-wire 460V±10% 60Hz					
Cooling capacity (Nominal)	*1	BTU/h	264,000				288,000					
		kW	77.4				84.4					
		Power input	kW		19.09				21.22			
(460)	(Rated)	Current input	A		26.6				29.5			
		BTU/h			252,000				276,000			
		kW			73.9				80.9			
(460)	(Rated)	Power input	kW		19.40		19.60		21.74		21.85	
		Current input	A		27.0		27.3		30.3		30.4	
		Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)			
		Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)				
Heating capacity (Nominal)	*2	BTU/h	295,000				323,000					
		kW	86.5				94.7					
		Power input	kW		21.17				23.21			
(460)	(Rated)	Current input	A		29.5				32.3			
		BTU/h			280,000				304,000			
		kW			82.1				89.1			
(460)	(Rated)	Power input	kW		21.00		21.07		23.48		23.37	
		Current input	A		29.2		29.3		32.7		32.5	
		Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)			
		Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)				
Indoor unit connectable	Total capacity		50%~130% of outdoor unit capacity				50%~130% of outdoor unit capacity					
	Model/Maximum quantity		M04~M96/50				M04~M96/50					
Sound power level (measured in anechoic room)			*3	dB <A>		83.5 / 86.5		84.0 / 86.0				
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/4 Brazed (19.05 Brazed)				3/4 Brazed (19.05 Brazed)					
	Gas pipe	in. (mm)	1-3/8 Brazed (34.93 Brazed)				1-3/8 Brazed (34.93 Brazed)					

Set Model

Model			PUHY-EM144YXU-A		PUHY-EM120YXU-A		PUHY-EM144YXU-A		PUHY-EM144YXU-A		
Minimum Circuit Ampacity		A	31		27		31		31		
Maximum Overcurrent Protection		A	50		45		50		50		
FAN	*4	Type x Quantity	Propeller fan×2		Propeller fan×1		Propeller fan×2		Propeller fan×2		
		Airflow rate	cfm		7,062		8,474		8,474		
			m³/min		200		240		240		
			L/s		4,000		3,333		4,000		
	Control, Driving mechanism	Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor			
Compressor	Motor output	kW	0.46		0.92		0.46		0.46		
	External static press.		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		
	Type x Quantity	Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1			
	Starting method		Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	8.9		7.3		8.9		8.9		
External finish	Case heater	kW	0.048		0.045		0.048		0.048		
	Lubricant		MEL46EH		MEL46EH		MEL46EH		MEL46EH		
	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
	70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 36-1/4 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16		
	1,798 x 1,217 x 747		1,798 x 920 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747		1,798 x 1,217 x 747		
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP./FAN)		Over-current protection		Over-current protection		Over-current protection		Over-current protection		
	Compressor		-		-		-		-		
	Fan motor		-		-		-		-		
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)		R32 x 11lbs 11oz (5.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		
	Control		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		
Net weight		lbs (kg)	741 (336)		631 (286)		741 (336)		741 (336)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		3/8 (9.52) Brazed		1/2 (12.7) Brazed		1/2 (12.7) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		
Defrosting method			Reverse defrost		Reverse defrost		Reverse defrost		Reverse defrost		
Optional parts		Twinning kit	CMY-Y300CBK2		CMY-Y300CBK2		CMY-Y200CBK2		CMY-Y200CBK2		
		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2		
		Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

Y-Series

High efficiency

R32

PUHY-EM YSXU-A (460V)



Outdoor Model			PUHY-EM360YSXU-A		PUHY-EM384YSXU-A	
Indoor Model			Non-Ducted	Ducted	Non-Ducted	Ducted
Power source			3-phase 3-wire 460V±10% 60Hz		3-phase 3-wire 460V±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU/h	360,000		384,000	
		kW	105.5		112.5	
	(460)	Power input	30.66		34.25	
		Current input	42.7		47.7	
(Rated)		BTU/h	344,000		368,000	
		kW	100.8		107.9	
	(460)	Power input	31.30	30.68	34.83	33.75
		Current input	43.6	42.7	48.5	47.0
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)	
	Outdoor	D.B.	23.0~126.0°F FDB (-5.0~52.0°CDB)		23.0~126.0°F FDB (-5.0~52.0°CDB)	
Heating capacity (Nominal)	*2	BTU/h	380,000		384,000	
		kW	111.4		112.5	
	(460)	Power input	29.27		30.17	
		Current input	40.8		42.0	
(Rated)		BTU/h	362,000		368,000	
		kW	106.1		107.9	
	(460)	Power input	29.41	28.80	30.04	28.78
		Current input	41.0	40.1	41.8	40.1
Temp. range of heating	Indoor	D.B.	59.0~81.0°F FDB (15.0~27.0°CDB)		59.0~81.0°F FDB (15.0~27.0°CDB)	
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)	
Indoor unit connectable			50%~130% of outdoor unit capacity		50%~130% of outdoor unit capacity	
Sound power level (measured in anechoic room) *3			M04~M96/50		M04~M96/50	
Refrigerant piping diameter			3/4 Brazed (19.05 Brazed)		3/4 Brazed (19.05 Brazed)	
			1-5/8 Brazed (41.28 Brazed)		1-5/8 Brazed (41.28 Brazed)	

Set Model

Model		PUHY-EM192YXU-A	PUHY-EM168YXU-A	PUHY-EM192YXU-A	PUHY-EM192YXU-A
Minimum Circuit Ampacity		A	31	31	31
Maximum Overcurrent Protection		A	50	50	50
FAN	*4 Type x Quantity	Propeller fan×2		Propeller fan×2	
		Airflow rate	cfm	11,123	11,123
			m ³ /min	315	315
			L/s	5,250	5,250
Compressor	Control, Driving mechanism	Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor	
		Motor output		Motor output	
		kW		kW	
		External static press.		0 in WG (0Pa)	
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1	
		Starting method		Inverter	
		Motor output		12.2	
		Case heater		0.048	
External finish	Lubricant	MEL46EH		MEL46EH	
		Pre-coated galvanized steel sheet		Pre-coated galvanized steel sheet	
		<Surface treatment : polyester resin		<Surface treatment : polyester resin	
		Color:MUNSELL 5Y 8/1>		Color:MUNSELL 5Y 8/1>	
External dimension H x W x D	in.	70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16	
		mm		1,798 x 1,217 x 747	
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)	
		Inverter circuit (COMP/FAN)		Over-current protection	
		Compressor		-	
		Fan motor		-	
Refrigerant	Type x original charge	R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)	
		Control		LEV and HIC circuit	
		Net weight		741 (336)	
		Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	
HIC circuit (HIC: Heat Inter-Changer)	Copper pipe , tube in tube	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
		Pipe between unit and distributor		5/8 (15.88) Brazed	
		Gas pipe		1-1/8 (28.58) Brazed	
		Defrosting method		Reverse defrost	
Optional parts	Twinning kit	CMY-Y200CBK2		CMY-Y200CBK2	
		Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2	
		Header		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G	
		Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °FD.B./67 °FW.B. (26.7 °CD.B./19.4 °CW.B.), Outdoor: 95 °FD.B. (35 °CD.B.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °FD.B. (21.1 °CD.B.), Outdoor: 47 °FD.B./43 °FW.B. (8.3 °CD.B./6.1 °CW.B.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)

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

Unit converter

BTU/h	=kW x 3.412
cfm	=m ³ /min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series

High efficiency

R32

PUHY-GM YXU-A (460V)



Outdoor Model			PUHY-GM192YXU-A			PUHY-GM216YXU-A			PUHY-GM240YXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	192,000			216,000			240,000		
		kW	56.3			63.3			70.3		
	(460)	Power input	13.60			15.85			18.46		
		Current input	18.9			22.1			25.7		
(Rated)		BTU/h	184,000			206,000			230,000		
		kW	53.9			60.4			67.4		
	(460)	Power input	13.25	13.30		15.18	15.25		17.88	17.90	
		Current input	18.4	18.5		21.1	21.2		24.9	24.9	
Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)		
	Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)		
Heating capacity (Nominal)	*2	BTU/h	215,000			243,000			260,000		
		kW	63.0			71.2			76.2		
	(460)	Power input	14.39			16.81			21.04		
		Current input	20.0			23.4			29.3		
(Rated)		BTU/h	204,000			232,000			258,000		
		kW	59.8			68.0			75.6		
	(460)	Power input	14.33	14.40		16.90	16.93		22.17	21.35	
		Current input	19.9	20.0		23.5	23.6		30.9	29.7	
Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)		
	Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)		
Indoor unit connectable			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity		
Model/Maximum quantity			M04~M96/38			M04~M96/43			M04~M96/47		
Sound power level (measured in anechoic room) *3			dB <A>			dB <A>			dB <A>		
Refrigerant piping diameter			Liquid pipe in. (mm)			5/8 Brazed (15.88 Brazed)			5/8 Brazed (15.88 Brazed)		
Gas pipe			in. (mm)			1-1/8 Brazed (28.58 Brazed)			1-3/8 Brazed (34.93 Brazed)		
Minimum Circuit Ampacity			A			44			54		
Maximum Overcurrent Protection			A			60			70		
FAN	*4	Type x Quantity	Propeller fan×2			Propeller fan×2			Propeller fan×2		
		Airflow rate	cfm	12,712		13,418		14,654			
			m³/min	360		380		415			
			L/s	6,000		6,333		6,917			
Control, Driving mechanism		Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			
Motor output		kW			0.92 + 0.92			0.92 + 0.92			
External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×2			Inverter scroll hermetic compressor ×2			Inverter scroll hermetic compressor ×2			
	Starting method	Inverter			Inverter			Inverter			
	Motor output	kW			5.1 + 5.1			7.1 + 7.1			
	Case heater	kW			0.045 + 0.045			0.045 + 0.045			
	Lubricant	MEL46EH			MEL46EH			MEL46EH			
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	79-3/4 x 76-7/8 x 29-1/2			79-3/4 x 76-7/8 x 29-1/2			79-3/4 x 76-7/8 x 29-1/2		
		mm	2,025 x 1,952 x 748			2,025 x 1,952 x 748			2,025 x 1,952 x 748		
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
	Inverter circuit (COMP./FAN)	Over-current protection			Over-current protection			Over-current protection			
	Compressor	-			-			-			
	Fan motor	-			-			-			
Refrigerant	Type x original charge	R32 x 23lbs 6oz (10.6kg)			R32 x 23lbs 6oz (10.6kg)			R32 x 23lbs 6oz (10.6kg)			
	Control	LEV and HIC circuit			LEV and HIC circuit			LEV and HIC circuit			
Net weight	lbs (kg)	1,365 (619)			1,367 (620)			1,369 (621)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube			Copper pipe , tube in tube			Copper pipe , tube in tube		
Defrosting method			Reverse defrost			Reverse defrost			Reverse defrost		
Optional parts	Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			
	Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

Y-Series

H2i

R32

PUHY-HM TXU-A (208-230V)



*Fin guards are optional parts sold separately.

Outdoor Model			PUHY-HM72TXU-A			PUHY-HM96TXU-A			PUHY-HM120TXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	72,000			96,000			120,000		
		kW	21.1			28.1			35.2		
	(208-230)	Power input	kW			6.29			8.04		
		Current input	A			13.6-12.3			19.3-17.5		
(Rated)		BTU/h	69,000			92,000			115,000		
		kW	20.2			27.0			33.7		
	(208-230)	Power input	kW			4.32			4.52		
		Current input	A			13.3-12.0			13.9-12.6		
Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)		
	Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)		
Heating capacity (Nominal)	*2	BTU/h	80,000			108,000			135,000		
		kW	23.4			31.7			39.6		
	(208-230)	Power input	kW			5.10			7.19		
		Current input	A			15.7-14.2			22.1-20.0		
(Rated)		BTU/h	76,000			103,000			129,000		
		kW	22.3			30.2			37.8		
	(208-230)	Power input	kW			4.51			5.01		
		Current input	A			13.9-12.5			15.4-13.9		
Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)		
	Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)		
Indoor unit connectable		Total capacity	50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity		
		Model/Maximum quantity	M04~M72/14			M04~M96/19			M04~M96/23		
Sound power level (measured in anechoic room)		*3 dB <A>	76.5 / 78.5			82.0 / 82.0			82.0 / 83.5		
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/8 Brazed (9.52 Brazed)			3/8 Brazed (1/2 Brazed , the farthest pipe length ≥3-9/16) (9.52 Brazed (12.7 Brazed , the farthest pipe length ≥90))			3/8 Brazed (1/2 Brazed , the farthest pipe length ≥1-5/8) (9.52 Brazed (12.7 Brazed , the farthest pipe length ≥40))		
	Gas pipe	in. (mm)	7/8 Brazed (22.2 Brazed)			7/8 Brazed (22.2 Brazed)			1-1/8 Brazed (28.58 Brazed)		
Minimum Circuit Ampacity (208/230)		A	51/51			60/60			60/60		
Maximum Overcurrent Protection (208/230)		A	80/80			100/100			100/100		
FAN	*4	Type x Quantity	Propeller fan×1			Propeller fan×2			Propeller fan×2		
		Airflow rate	cfm			6,356			9,181		
			m³/min			180			260		
			L/s			3,000			4,333		
	Control, Driving mechanism	Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			
	Motor output	kW			0.92			0.46			
	External static press.	0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
	Type x Quantity	Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			
Compressor	Starting method	Inverter			Inverter			Inverter			
	Motor output	kW			3.5			5.2			
	Case heater	kW			0.045			0.048			
	Lubricant	MEL46EH			MEL46EH			MEL46EH			
External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D	in.	70-13/16 x 35-7/8 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16			
	mm	1,798 x 910 x 740			1,798 x 1,207 x 740			1,798 x 1,207 x 740			
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
	Inverter circuit (COMP/FAN)	Over-current protection			Over-current protection			Over-current protection			
	Compressor	-			-			-			
	Fan motor	-			-			-			
Refrigerant	Type x original charge	R32 x 11lbs 11oz (5.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			
	Control	LEV and HIC circuit			LEV and HIC circuit			LEV and HIC circuit			
Net weight		lbs (kg)	591 (268)			697 (316)			701 (318)		
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe , tube in tube			Copper pipe , tube in tube			Copper pipe , tube in tube			
Defrosting method		Reverse defrost			Reverse defrost			Reverse defrost			
Optional parts	Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			
	Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			
	Fin guard	PAC-FG04B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F D.B./67 °F W.B. (26.7 °C D.B./19.4 °C W.B.), Outdoor: 95 °F D.B. (35 °C D.B.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F D.B. (21.1 °C D.B.), Outdoor: 47 °F D.B./43 °F W.B. (8.3 °C D.B./6.1 °C W.B.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option.(Cooling and heating in models HM96 to HM120, and HM192 to HM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)

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

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

Y-Series

H2i

R32

PUHY-HM TSXU-A (208-230V)



*Fin guards are optional parts sold separately.

Outdoor Model			PUHY-HM144TSXU-A				PUHY-HM192TSXU-A				
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted		
Power source			3-phase 3-wire 208-230V±10% 60Hz				3-phase 3-wire 208-230V±10% 60Hz				
Cooling capacity (Nominal)	*1	BTU/h	144,000		192,000						
		kW	42.2		56.3						
	Power input	kW	9.32		12.71						
		Current input	A	28.7-25.9		39.1-35.4					
(208-230) (Rated)		BTU/h	138,000		184,000						
		kW	40.4		53.9						
	Power input	kW	9.45		12.68						
		Current input	A	29.1-26.3		40.6-36.7					
Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)		59.0~75.0°FWB (15.0~24.0°CWB)						
	Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)		23.0~126.0°FDB (-5.0~52.0°CDB)						
Heating capacity (Nominal)	*2	BTU/h	160,000		215,000						
		kW	46.9		63.0						
	Power input	kW	10.24		14.31						
		Current input	A	31.5-28.5		44.1-39.9					
(208-230) (Rated)		BTU/h	152,000		204,000						
		kW	44.5		59.8						
	Power input	kW	9.68		13.57						
		Current input	A	29.8-26.9		41.8-37.8					
Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)		59.0~81.0°FDB (15.0~27.0°CDB)						
	Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)		-22.0~60.0°FWB (-30.0~15.5°CWB)						
Indoor unit connectable		Total capacity	50%~130% of outdoor unit capacity				50%~130% of outdoor unit capacity				
		Model/Maximum quantity	M04-M96/28				M04-M96/38				
Sound power level (measured in anechoic room)		*3 dB <A>	80.0 / 82.0				85.5 / 85.5				
Refrigerant		Liquid pipe	in. (mm)				5/8 Brazed (15.88 Brazed)				
piping diameter		Gas pipe	in. (mm)				1-1/8 Brazed (28.58 Brazed)				
Set Model											
Model			PUHY-HM72TXU-A		PUHY-HM72TXU-A		PUHY-HM96TXU-A		PUHY-HM96TXU-A		
Minimum Circuit Ampacity (208/230)		A	51/51		51/51		60/60		60/60		
Maximum Overcurrent Protection (208/230)		A	80/80		80/80		100/100		100/100		
FAN			*4 Type x Quantity		Propeller fan×1		Propeller fan×1		Propeller fan×2		
	Airflow rate	cfm	6,356		6,356		9,181		9,181		
		m³/min	180		180		260		260		
		L/s	3,000		3,000		4,333		4,333		
	Control, Driving mechanism		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		
	Motor output		kW		0.92		0.46		0.46		
	External static press.		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		
	Type x Quantity		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		
	Starting method		Inverter		Inverter		Inverter		Inverter		
Compressor	Motor output		kW		3.5		5.2		5.2		
	Case heater		kW		0.045		0.048		0.048		
	Lubricant		MEL46EH		MEL46EH		MEL46EH		MEL46EH		
	External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 35-7/8 x 29-3/16		70-13/16 x 35-7/8 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16		
		mm	1,798 x 910 x 740		1,798 x 910 x 740		1,798 x 1,207 x 740		1,798 x 1,207 x 740		
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP/FAN)		Over-current protection		Over-current protection		Over-current protection		Over-current protection		
	Compressor		-		-		-		-		
	Fan motor		-		-		-		-		
Refrigerant			Type x original charge		R32 x 11lbs 11oz (5.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		
			Control		LEV and HIC circuit		LEV and HIC circuit				
Net weight		lbs (kg)	591 (268)		591 (268)		697 (316)		697 (316)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed		3/8 (9.52) Brazed		3/8 (9.52) Brazed		
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed		
Defrosting method			Reverse defrost				Reverse defrost				
Optional parts			CMY-Y100CBK3				CMY-Y100CBK3				
	Twinning kit										
	Joint		CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2				CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2				
	Header		CMY-Y104C-G, CMY-Y108C-G, CMY-Y1010C-G				CMY-Y104C-G, CMY-Y108C-G, CMY-Y1010C-G				
	Fin guard		PAC-FG04B-E, PAC-FG03S-E				PAC-FG05B-E, PAC-FG03S-E				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

Y-Series

H2i

R32

PUHY-HM TSXU-A (208-230V)



*Fin guards are optional parts sold separately.

Outdoor Model			PUHY-HM240TSXU-A	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU/h	240,000	
		kW	70.3	
	(208-230)	Power input	16.31	
		Current input	50.3-45.4	
(Rated)		BTU/h	230,000	
		kW	67.4	
	(208-230)	Power input	16.41	16.47
		Current input	50.6-45.7	50.7-45.9
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)	
	Outdoor	D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)	
Heating capacity (Nominal)	*2	BTU/h	270,000	
		kW	79.1	
	(208-230)	Power input	18.50	
		Current input	57.0-51.5	
(Rated)		BTU/h	258,000	
		kW	75.6	
	(208-230)	Power input	18.14	19.19
		Current input	55.9-50.5	59.1-53.5
Temp. range of heating	Indoor	D.B.	59.0~81.0°F DB (15.0~27.0°CDB)	
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)	
Indoor unit connectable			50%~130% of outdoor unit capacity	
Sound power level (measured in anechoic room) *3			M04~M96/47	
			85.5 / 87.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 Braze (15.88 Braze)	
	Gas pipe	in. (mm)	1-1/8 Braze (28.58 Braze)	

Set Model

Model			PUHY-HM120TXU-A		PUHY-HM120TXU-A	
Minimum Circuit Ampacity (208/230)		A	60/60		60/60	
Maximum Overcurrent Protection (208/230)		A	100/100		100/100	
FAN	*4	Type x Quantity	Propeller fan×2		Propeller fan×2	
		Airflow rate	cfm	9,181	9,181	
			m³/min	260	260	
			L/s	4,333	4,333	
	Control, Driving mechanism	Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		
	Motor output	kW	0.46		0.46	
	External static press.	0 in WG (0Pa)		0 in WG (0Pa)		
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		
	Starting method	Inverter		Inverter		
	Motor output	kW	6.9		6.9	
	Case heater	kW	0.048		0.048	
	Lubricant	MEL46EH		MEL46EH		
	External finish	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 47-9/16 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16	
		mm	1,798 x 1,207 x 740		1,798 x 1,207 x 740	
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP/FAN)	Over-current protection		Over-current protection		
	Compressor	-		-		
	Fan motor	-		-		
Refrigerant	Type x original charge	R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		
	Control	LEV and HIC circuit				
Net weight		lbs (kg)	701 (318)		701 (318)	
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe , tube in tube		Copper pipe , tube in tube		
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		1/2 (12.7) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Defrosting method		Reverse defrost				
Optional parts	Twinning kit	CMY-Y100CBK3				
	Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2				
	Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G				
	Fin guard	PAC-FG05B-E , PAC-FG03S-E				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB. (26.7 °C DB / 19.4 °C WB.), Outdoor: 95 °F DB. (35 °C DB.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB. (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB. (8.3 °C DB / 6.1 °C WB.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option.(Cooling and heating in models HM96 to HM120, and HM192 to HM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)

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

Unit converter

BTU/h	=kW x 3.412
cfm	=m ³ /min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series

H2i

R32

PUHY-HM YXU-A (460V)



*Fin guards are optional parts sold separately.

Outdoor Model			PUHY-HM72YXU-A			PUHY-HM96YXU-A			PUHY-HM120YXU-A			
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	72,000			96,000			120,000			
		kW	21.1			28.1			35.2			
	(460)	Power input	kW			6.29			8.04			
		Current input	A			8.7			11.2			
	(Rated)		BTU/h	69,000			92,000			115,000		
			kW	20.2			27.0			33.7		
(460)	Power input	kW	4.32	4.52		6.17	6.42		7.98	8.01		
	Current input	A	6.0	6.3		8.6	8.9		11.1	11.1		
Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			
	Outdoor	D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	80,000			108,000			135,000			
		kW	23.4			31.7			39.6			
	(460)	Power input	kW			7.19			9.23			
		Current input	A			10.0			12.8			
	(Rated)		BTU/h	76,000			103,000			129,000		
			kW	22.3			30.2			37.8		
(460)	Power input	kW	4.51	5.01		6.47	7.06		8.37	9.36		
	Current input	A	6.2	6.9		9.0	9.8		11.6	13.0		
Temp. range of heating	Indoor	D.B.	59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			
	Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			
Indoor unit connectable		Total capacity	50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			50%~130% of outdoor unit capacity			
Sound power level (measured in anechoic room) *3		Model/Maximum quantity	dB <A>			dB <A>			dB <A>			
Refrigerant piping diameter		Model/Maximum quantity	M04~M72/14			M04~M96/19			M04~M96/23			
		Liquid pipe	in. (mm)			82.0 / 82.0			82.0 / 83.5			
		Gas pipe	in. (mm)			3/8 Braze (1/2 Braze , the farthest pipe length ≥3-9/16) (9.52 Braze (12.7 Braze , the farthest pipe length ≥90))			3/8 Braze (1/2 Braze , the farthest pipe length ≥1-5/8) (9.52 Braze (12.7 Braze , the farthest pipe length ≥40))			
Minimum Circuit Ampacity			7/8 Braze (22.2 Braze)			7/8 Braze (22.2 Braze)			1-1/8 Braze (28.58 Braze)			
Maximum Overcurrent Protection			27			31			31			
FAN		A	45			50			50			
Compressor	*4	Type x Quantity	Propeller fan×1			Propeller fan×2			Propeller fan×2			
		Airflow rate	cfm			9,181			9,181			
			m³/min			260			260			
			L/s			4,333			4,333			
	Control, Driving mechanism	Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor				
	Motor output	kW			0.92			0.46				
	External static press.	0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)				
	Type x Quantity	Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1				
	Starting method	Inverter			Inverter			Inverter				
	Motor output	kW			3.5			6.9				
Case heater	kW			0.045			0.048					
Lubricant	MEL46EH			MEL46EH			MEL46EH					
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D		in.	70-13/16 x 35-7/8 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16			
		mm	1,798 x 910 x 740			1,798 x 1,207 x 740			1,798 x 1,207 x 740			
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
	Inverter circuit (COMP/FAN)		Over-current protection			Over-current protection			Over-current protection			
	Compressor		-			-			-			
Refrigerant	Fan motor		-			-			-			
	Type x original charge		R32 x 11lbs 11oz (5.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			
Net weight	Control	lbs (kg)	LEV and HIC circuit			LEV and HIC circuit			LEV and HIC circuit			
Heat exchanger			622 (282)			732 (332)			732 (332)			
HIC circuit (HIC: Heat Inter-Changer)			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
Defrosting method			Copper pipe , tube in tube			Copper pipe , tube in tube			Copper pipe , tube in tube			
Optional parts			Reverse defrost			Reverse defrost			Reverse defrost			
	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2			
	Header		CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G			
Fin guard			PAC-FG04B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Y-Series

H2i

R32

PUHY-HM YSXU-A (460V)



*Fin guards are optional parts sold separately.

Outdoor Model				PUHY-HM144YSXU-A				PUHY-HM192YSXU-A			
Indoor Model				Non-Ducted		Ducted		Non-Ducted		Ducted	
Power source				3-phase 3-wire 460V±10% 60Hz				3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h		144,000				192,000			
		kW		42.2				56.3			
		Power input	kW	9.32				12.71			
		(460) Current input	A	12.9				17.7			
(Rated)		BTU/h		138,000				184,000			
		kW		40.4				53.9			
		Power input	kW	9.45		9.68		12.68		13.19	
		(460) Current input	A	13.1		13.4		17.6		18.3	
Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)				
	Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)				
Heating capacity (Nominal)	*2	BTU/h		160,000				215,000			
		kW		46.9				63.0			
		Power input	kW	10.24				14.31			
		(460) Current input	A	14.2				19.9			
(Rated)		BTU/h		152,000				204,000			
		kW		44.5				59.8			
		Power input	kW	9.68		10.43		13.57		14.28	
		(460) Current input	A	13.4		14.5		18.9		19.9	
Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)				
	Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)				
Indoor unit connectable	Total capacity		50%~130% of outdoor unit capacity				50%~130% of outdoor unit capacity				
	Model/Maximum quantity		M04~M96/28				M04~M96/38				
Sound power level (measured in anechoic room)		*3	dB <A>	80.0 / 82.0				85.5 / 85.5			
Refrigerant piping diameter	Liquid pipe	in. (mm)	1/2 Brazed (12.7 Brazed)				5/8 Brazed (15.88 Brazed)				
	Gas pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)				1-1/8 Brazed (28.58 Brazed)				

Set Model

Model			PUHY-HM72YXU-A		PUHY-HM72YXU-A		PUHY-HM96YXU-A		PUHY-HM96YXU-A				
Minimum Circuit Ampacity			A		27		27		31		31		
Maximum Overcurrent Protection			A		45		45		50		50		
FAN	*4	Type x Quantity	Propeller fan×1		Propeller fan×1		Propeller fan×2		Propeller fan×2		Propeller fan×2		
		Airflow rate	cfm		6,356		6,356		9,181		9,181		
			m³/min		180		180		260		260		
			L/s		3,000		3,000		4,333		4,333		
Control, Driving mechanism			Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		
Motor output			kW		0.92		0.92		0.46		0.46		
External static press.			0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		
	Starting method		Inverter		Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	3.5		3.5		5.2		5.2		5.2		
	Case heater	kW	0.045		0.045		0.048		0.048		0.048		
Lubricant			MEL46EH		MEL46EH		MEL46EH		MEL46EH		MEL46EH		
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 35-7/8 x 29-3/16		70-13/16 x 35-7/8 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16		
		mm	1,798 x 910 x 740		1,798 x 910 x 740		1,798 x 1,207 x 740		1,798 x 1,207 x 740		1,798 x 1,207 x 740		
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP/FAN)		Over-current protection		Over-current protection		Over-current protection		Over-current protection		Over-current protection		
	Compressor		-		-		-		-		-		
Fan motor		-		-		-		-		-		-	
Refrigerant	Type x original charge		R32 x 11lbs 11oz (5.3kg)		R32 x 11lbs 11oz (5.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		
	Control		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		LEV and HIC circuit		
Net weight		lbs (kg)	622 (282)		622 (282)		732 (332)		732 (332)		732 (332)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		Copper pipe , tube in tube		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Braze		3/8 (9.52) Braze		3/8 (9.52) Braze		3/8 (9.52) Braze		3/8 (9.52) Braze		
	Gas pipe	in. (mm)	7/8 (22.2) Braze		7/8 (22.2) Braze		7/8 (22.2) Braze		7/8 (22.2) Braze		7/8 (22.2) Braze		
Defrosting method			Reverse defrost		Reverse defrost		Reverse defrost		Reverse defrost		Reverse defrost		
Optional parts		Twinning kit	CMY-Y100CBK3				CMY-Y100CBK3						
		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2				CMY-Y102SS-G2 , CMY-Y102LS-G2 , CMY-Y202S-G2 , CMY-Y302S-G2						
		Header	CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G				CMY-Y104C-G , CMY-Y108C-G , CMY-Y1010C-G						
		Fin guard	PAC-FG04B-E , PAC-FG03S-E				PAC-FG05B-E , PAC-FG03S-E						
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.						

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB, (26.7 °C DB / 19.4 °C WB), Outdoor: 95 °F DB, (35 °C DB.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB, (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB, (8.3 °C DB / 6.1 °C WB.)
- Cooling mode / Heating mode
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option.(Cooling and heating in models HM96 to HM120, and HM192 to HM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)

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

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Y-Series

H2i

R32

PUHY-HM YSXU-A (460V)



*Fin guards are optional parts sold separately.

Outdoor Model				PUHY-HM240YSXU-A			
Indoor Model				Non-Ducted		Ducted	
Power source				3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)		*1	BTU/h	240,000			
			kW	70.3			
(460)		Power input	kW	16.31			
			(Rated)	Current input	A	22.7	
			BTU/h	230,000			
			kW	67.4			
(460)		Power input	kW	16.41		16.47	
			(Rated)	Current input	A	22.8	
Temp. range of cooling		Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)			
			D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)		*2	BTU/h	270,000			
			kW	79.1			
(460)		Power input	kW	18.50			
			(Rated)	Current input	A	25.7	
			BTU/h	258,000			
			kW	75.6			
(460)		Power input	kW	18.14		19.19	
			(Rated)	Current input	A	25.2	
Temp. range of heating		Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)			
			Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)		
Indoor unit connectable		Total capacity		50%~130% of outdoor unit capacity			
		Model/Maximum quantity		M04~M96/47			
Sound power level (measured in anechoic room)		*3	dB <A>	85.5 / 87.0			
Refrigerant piping diameter		Liquid pipe	in. (mm)	5/8 Brazed (15.88 Brazed)			
		Gas pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)			

R2-Series

Simultaneous Heating and Cooling Heat recovery

- Optional partsP.58
- Specifications

208-230V	High efficiency	PURY-E(G)M T/YXU-A	P.59 - P.70
460V	H2i	PURY-HM T/Y(S)XU-A	P.71 - P.76
- BC controllersP.100 - P.105

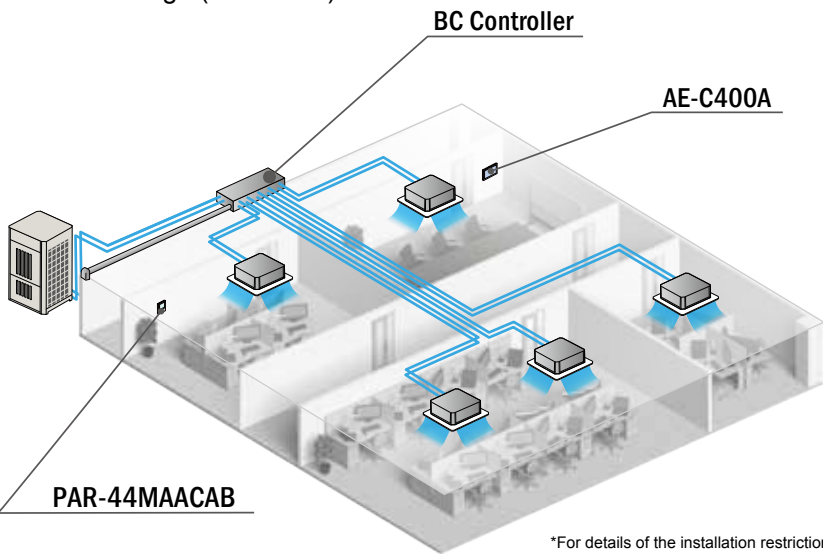


The world's first* two-pipe system that simultaneously heats and cools

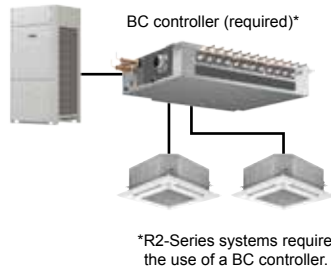
*As of 1992 (according to our in-house survey)

The CITY MULTI R2-Series offers the ultimate in freedom and flexibility. Cool one zone while heating another. Our exclusive BC controller makes two-pipe simultaneous cooling and heating possible. It 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 example



*R2-Series systems require the use of a BC controller.

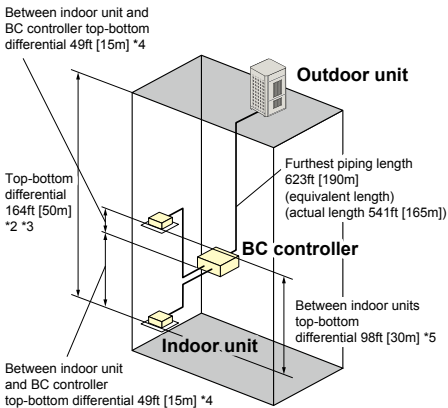
• System Pipe Lengths

EM72-384T/Y(S)XU
GM192-240T/YXU
HM72-240T/Y(S)XU

Refrigerant Piping Lengths	Maximum feet [Meters]	Vertical differentials between units	Maximum feet [Meters]
Maximum allowable length	541 (623 equivalent)	Indoor/outdoor (outdoor higher).....	164 [50]*3
	[165 (190)]	Indoor/outdoor (outdoor lower).....	131 [40]*3
		Indoor/BC controller (single/main).....	49 [15]*4
Maximum length between outdoor and single/main BC controller	360 [110]	*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.	
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC controller.		Indoor/Indoor.....	98 [30]*5
Maximum length between single/main BC controller and indoor and sub-BC controller*1	131-295 [40-90]	Main BC Controller/Sub-BC Controller..	49 [15]

*1 When you install a sub-BC controller, please refer to DATABOOK for full details.
*2 When the outdoor unit is installed below the indoor unit, top-bottom differential is 131ft [40m].
*3 Depending on the model and installation conditions, top-bottom differential 370ft [113m] (o/u above) and 196ft [60m] (o/u below) is available.
For more detailed information, please contact your nearest sales office or distributor.

*4 Distance of Indoor sized P72, P96 from BC must be less than 32ft [10m], if any.
*5 Distance of Indoor sized P72, P96 from BC must be less than 65ft [20m], if any.

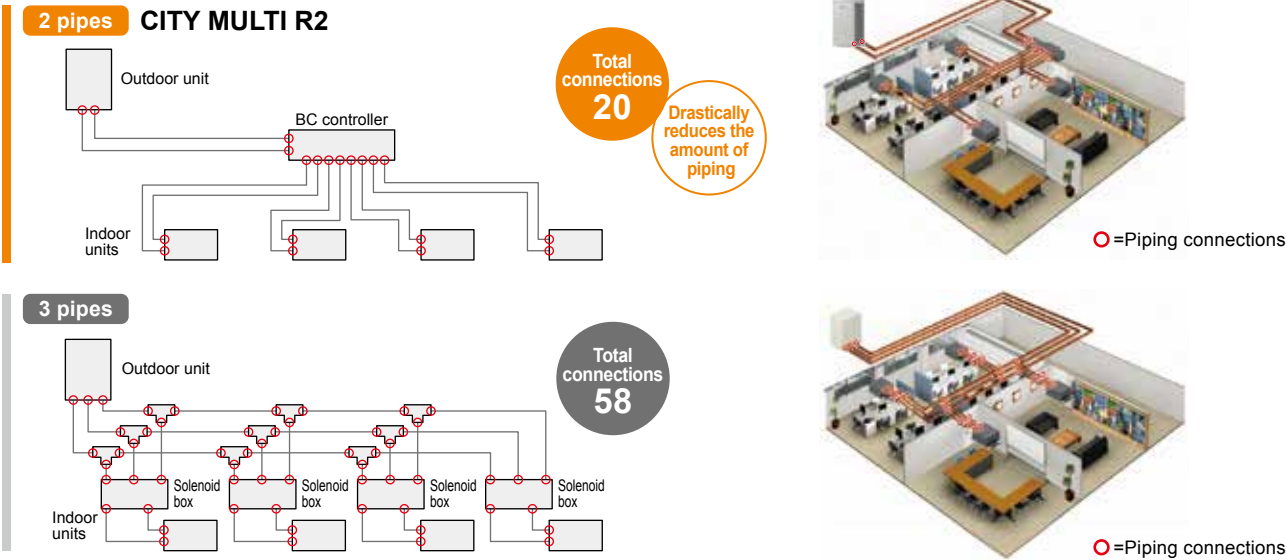


Benefits of the R2 system

Unique to Mitsubishi Electric, our heat recovery technology uses just two pipes, as opposed to 3-pipe systems. Our R2 system, designed for effective simultaneous heating and cooling, offers substantial savings on installation and operational costs.

Mitsubishi Electric 2-pipe R2 system: less piping/connections compared to a 3-pipe system

• Comparison example of piping connections



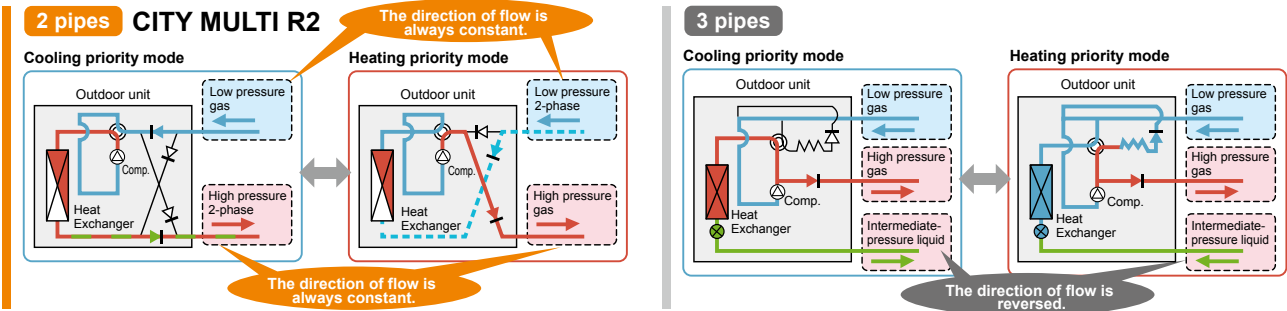
Cooling/heating modes can be switched without stopping operation

When cooling/heating mode switches

- There is no need to stop the compressor.
- The refrigerant noise that is generated when the refrigerant flow is switched can be lowered.

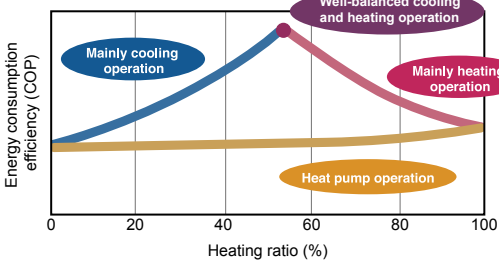
When cooling/heating mode switches

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



Heat recovery operation for greater energy savings

• COP of the heat recovery system



COP of the heat recovery system

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

Optional parts

- For High efficiency, H2i

Description	Model	Remarks
Twinning kit	CMY-R100NCBK	For PURY-HM144T/YSXU-A
	CMY-R200NCBK	For PURY-HM192-240T/YSXU-A
	CMY-R300NCBK	For PURY-EM264-384T/YSXU-A
Branch pipe (Joint)	CMY-Y102SS-G2	72 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	73-144 (Total capacity of indoor unit)
	CMY-Y202S-G2	145-240 (Total capacity of indoor unit)
Fin Guard *1	CMY-Y302S-G2	241 or above (Total capacity of indoor unit)
	PAC-FG03S-E	For side surface of HM model (a set of two pieces)
	PAC-FG04B-E	For rear surface of PURY-HM72T/YXU-A
BOTTOM OUTLET LOW-PRESSURE KIT	PAC-FG05B-E	For rear surface of PURY-HM96-120T/YXU-A
	CMY-G100EL-B	For PURY-GM192-240T/YXU-A

*1. EM and GM models are standard equipped with fin guard.

R2-Series

High efficiency

R32

PURY-EM TXU-A (208-230V)



Outdoor Model			PURY-EM72TXU-A			PURY-EM96TXU-A			PURY-EM120TXU-A				
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted		
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz				
Cooling capacity (Nominal)	*1	BTU/h	72,000			96,000			120,000				
		kW	21.1			28.1			35.2				
		kW	4.49			6.33			8.54				
(208-230)	Power input	kW	4.49			6.33			8.54				
		Current input	A	13.8-12.5			19.5-17.6			26.3-23.8			
		(Rated)	BTU/h	69,000			92,000			115,000			
(208-230)	Power input	kW	20.2			27.0			33.7				
		kW	4.33	4.51		6.10	6.40		8.40	8.54			
		Current input	A	13.3-12.0		13.9-12.5		18.8-17.0		19.7-17.8		25.9-23.4	26.3-23.8
Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)				
	Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)				
Heating capacity (Nominal)	*2	BTU/h	80,000			108,000			135,000				
		kW	23.4			31.7			39.6				
		kW	5.18			7.12			9.93				
(208-230)	Current input	A	15.9-14.4			21.9-19.8			30.6-27.6				
		(Rated)	BTU/h	76,000			103,000			129,000			
		kW	22.3			30.2			37.8				
(208-230)	Power input	kW	4.57	5.21		6.57	7.14		8.95	9.55			
		Current input	A	14.0-12.7		16.0-14.5		20.2-18.3		22.0-19.9		27.6-24.9	29.4-26.6
		Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)			
Temp. range of heating	Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)				
	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)				
Indoor unit connectable	Total capacity		50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity				
	Model/Maximum quantity		M04~M96/14			M04~M96/19			M04~M96/24				
Sound power level (measured in anechoic room) *3		dB <A>	76.5/78.5			77.5/80.0			80.0/83.5				
Refrigerant piping diameter	High pressure		in. (mm) 5/8 Brazed (15.88 Brazed)			3/4 Brazed (19.05 Brazed)			3/4 Brazed (19.05 Brazed)				
	Low pressure		3/4 Brazed (19.05 Brazed)			7/8 Brazed (22.2 Brazed)			1-1/8 Brazed (28.58 Brazed)				
Minimum Circuit Ampacity (208/230)		A	40/40			40/40			51/51				
Maximum Overcurrent Protection (208/230)		A	60/60			60/60			80/80				
FAN	*5	Type x Quantity	Propeller fan x 1			Propeller fan x 1			Propeller fan x 1				
		Airflow rate	cfm 6,356			6,532			7,062				
			m³/min 180			185			200				
L/s 3,000			3,083			3,333							
Control, Driving mechanism		Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor					
Motor output		kW	0.92			0.92			0.92				
External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)					
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1				
	Starting method		Inverter			Inverter			Inverter				
	Motor output	kW	3.5			5.1			7.5				
Case heater		kW	0.045			0.045			0.045				
Lubricant		MEL46EH			MEL46EH			MEL46EH					
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>				
External dimension H x W x D		in.	70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16				
		mm	1,798 x 920 x 747			1,798 x 920 x 747			1,798 x 920 x 747				
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)				
	Inverter circuit (COMP./FAN)		Over-current protection			Over-current protection			Over-current protection				
	Compressor		-			-			-				
Refrigerant	Fan motor		-			-			-				
	Type x original charge		R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)				
	Control		Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller				
Net weight		lbs (kg)	604 (274)			604 (274)			611 (277)				
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes				
HIC circuit (HIC: Heat Inter-Changer)			-			-			-				
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost				
Optional parts	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2				
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV				
	Sub BC controller		CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °FD.B./67 °FW.B. (26.7 °CD.B./19.4 °CW.B.), Outdoor: 95 °FD.B. (35 °CD.B.)
 - Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °FD.B. (21.1 °CD.B.), Outdoor: 47 °FD.B./43 °FW.B. (8.3 °CD.B./6.1 °CW.B.)
 - Cooling mode / Heating mode
 - 4.-10 °CD.B. (14 °FD.B.)/-11 °CW.B. (12.2 °FW.B.) to 21 °CD.B. (69.8 °FD.B.)/15.5 °CW.B. (59 °FW.B.) with cooling/heating mixed operation.
 - External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

BTU/h =kW x 3.412
cfm =m³/min x 35.31
lbs =kg/0.4536

*Above specification data is subject to rounding variation.

R2-Series

High efficiency

R32

PURY-EM TXU-A (208-230V)



Outdoor Model			PURY-EM144TXU-A			PURY-EM168TXU-A			PURY-EM192TXU-A				
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted		
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz				
Cooling capacity (Nominal)	*1		BTU/h		144,000	168,000		192,000					
			kW		42.2	49.2		56.3					
		Power input	kW		10.43	13.22		16.19					
		(208-230) Current input	A		32.1-29.0	40.7-36.8		49.9-45.1					
		(Rated)	BTU/h		138,000	160,000		184,000					
(208-230)			kW		40.4	46.9		53.9					
		Power input	kW		10.51	10.60	13.24	13.20	16.08	16.22			
		(208-230) Current input	A		32.4-29.3	32.6-29.5	40.8-36.9	40.7-36.8	49.5-44.8	50.0-45.2			
		Indoor	W.B.		59.0~75.0°F WB (15.0~24.0°CWB)	59.0~75.0°F WB (15.0~24.0°CWB)	59.0~75.0°F WB (15.0~24.0°CWB)	59.0~75.0°F WB (15.0~24.0°CWB)	59.0~75.0°F WB (15.0~24.0°CWB)	59.0~75.0°F WB (15.0~24.0°CWB)			
		Outdoor	D.B.		23.0~126.0°F FDB (-5.0~52.0°CDB)	23.0~126.0°F FDB (-5.0~52.0°CDB)	23.0~126.0°F FDB (-5.0~52.0°CDB)	23.0~126.0°F FDB (-5.0~52.0°CDB)	23.0~126.0°F FDB (-5.0~52.0°CDB)	23.0~126.0°F FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2		BTU/h		160,000	188,000		192,000					
			kW		46.9	55.1		56.3					
		Power input	kW		11.68	14.64		15.89					
		(208-230) Current input	A		36.0-32.5	45.1-40.8		49.0-44.3					
		(Rated)	BTU/h		152,000	178,000		184,000					
(208-230)			kW		44.5	52.2		53.9					
		Power input	kW		10.75	11.37	13.38	14.17	13.75	14.60			
		(208-230) Current input	A		33.1-29.9	35.0-31.7	41.2-37.3	43.7-39.5	42.4-38.3	45.0-40.7			
		Indoor	D.B.		59.0~81.0°F FDB (15.0~27.0°CDB)	59.0~81.0°F FDB (15.0~27.0°CDB)	59.0~81.0°F FDB (15.0~27.0°CDB)	59.0~81.0°F FDB (15.0~27.0°CDB)	59.0~81.0°F FDB (15.0~27.0°CDB)	59.0~81.0°F FDB (15.0~27.0°CDB)			
		Outdoor	W.B.		-22.0~60.0°F WB (-30.0~15.5°CWB)	-22.0~60.0°F WB (-30.0~15.5°CWB)	-22.0~60.0°F WB (-30.0~15.5°CWB)	-22.0~60.0°F WB (-30.0~15.5°CWB)	-22.0~60.0°F WB (-30.0~15.5°CWB)	-22.0~60.0°F WB (-30.0~15.5°CWB)			
Indoor unit connectable	Total capacity		50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity				
	Model/Maximum quantity		M04~M96/29			M04~M96/34			M04~M96/39				
Sound power level (measured in anechoic room) *3			dB <A>		80.5/82.5	80.5/88.5		87.5/89.5					
Refrigerant piping diameter	High pressure		in. (mm)		7/8 Brazed (22.2 Brazed)	7/8 Brazed (22.2 Brazed)		7/8 Brazed (22.2 Brazed)					
	Low pressure				1-1/8 Brazed (28.58 Brazed)	1-1/8 Brazed (28.58 Brazed)		1-1/8 Brazed (28.58 Brazed)					
Minimum Circuit Ampacity (208/230)			A		60/60	60/60		60/60					
Maximum Overcurrent Protection (208/230)			A		100/100	100/100		100/100					
FAN	*5	Type x Quantity		Propeller fan x 2			Propeller fan x 2			Propeller fan x 2			
		Airflow rate	cfm		8,474			10,593			11,123		
			m³/min		240			300			315		
			L/s		4,000			5,000			5,250		
		Control, Driving mechanism		Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			
Compressor		Motor output		kW		0.46	0.46		0.46				
		External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
		Type x Quantity		Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			
		Starting method		Inverter			Inverter			Inverter			
		Motor output		kW		9.0	11.5		12.7				
External finish		Case heater		kW		0.048	0.048		0.048				
		Lubricant		MEL46EH			MEL46EH			MEL46EH			
		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16			
				1,798 x 1,217 x 747			1,798 x 1,217 x 747			1,798 x 1,217 x 747			
		Protection devices		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
Inverter circuit (COMP/FAN)	Over-current protection			Over-current protection			Over-current protection						
	Compressor			-			-						
	Fan motor			-			-						
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)				
	Control		Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller				
Net weight		lbs (kg)		712 (323)			712 (323)			712 (323)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes				
HIC circuit (HIC: Heat Inter-Changer)			-			-			-				
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost				
Optional parts	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2				
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV				
	Sub BC controller		CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB, (26.7 °C DB / 19.4 °C WB), Outdoor: 95 °F DB, (35 °C DB.)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB, (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB, (8.3 °C DB / 6.1 °C WB.)
- Cooling mode / Heating mode
4.-10 °C DB, (14 °F DB.) / -11 °C WB, (12.2 °F WB.) to 21 °C DB, (69.8 °F DB.) / 15.5 °C WB, (59 °F WB.) with cooling/heating mixed operation.
- External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

BTU/h =kW x 3.412
cfm =m³/min x 35.31
lbs =kg/0.4536

*Above specification data is subject to rounding variation.

R2-Series

High efficiency

R32

PURY-EM TSXU-A (208-230V)



Outdoor Model			PURY-EM264TSXU-A			PURY-EM288TSXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	264,000			288,000		
		kW	77.4			84.4		
		Power input	19.53			21.94		
		(208-230) Current input	A			60.2-54.4		
		(Rated)	BTU/h			252,000		
(208-230)	(Rated)	kW	73.9			80.9		
		Power input	19.97			20.05		
		(208-230) Current input	A			61.5-55.6		
		Indoor	W.B.			59.0~75.0°FWB (15.0~24.0°CWB)		
		Outdoor	D.B.			23.0~126.0°FDB (-5.0~52.0°CDB)		
Temp. range of *4 cooling	(208-230)	BTU/h	295,000			323,000		
		kW	86.5			94.7		
		Power input	21.63			23.65		
		(208-230) Current input	A			66.7-60.3		
		(Rated)	BTU/h			280,000		
(208-230)	(Rated)	kW	82.1			89.1		
		Power input	21.78			21.40		
		(208-230) Current input	A			67.1-60.7		
		Indoor	D.B.			59.0~81.0°FDB (15.0~27.0°CDB)		
		Outdoor	W.B.			-22.0~60.0°FWB (-30.0~15.5°CWB)		
Heating capacity (Nominal)	*2	BTU/h	295,000			323,000		
		kW	86.5			94.7		
(208-230)	(Rated)	Power input	21.63			23.65		
		(208-230) Current input	A			66.7-60.3		
		(Rated)	BTU/h			280,000		
		kW	82.1			89.1		
		Power input	21.78			21.40		
(208-230)	(Rated)	(208-230) Current input	A			67.1-60.7		
		Indoor	D.B.			59.0~81.0°FDB (15.0~27.0°CDB)		
		Outdoor	W.B.			-22.0~60.0°FWB (-30.0~15.5°CWB)		
		Indoor unit connectable	Total capacity			50%~150% of outdoor unit capacity		
		Model/Maximum quantity	M04~M96/50			M04~M96/50		
Sound power level (measured in anechoic room) *3	*3	dB <A>	83.5/86.5			84.0/86.0		
Refrigerant	Liquid pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)		
piping diameter	Gas pipe	in. (mm)	1-3/8 Brazed (34.93 Brazed)			1-3/8 Brazed (34.93 Brazed)		
Set Model								
Model			PURY-EM144TXU-A			PURY-EM120TXU-A		
Minimum Circuit Ampacity (208/230)	A		60/60			51/51		
Maximum Overcurrent Protection (208/230)	A		100/100			80/80		
FAN	*5	Type x Quantity	Propeller fan x 2			Propeller fan x 1		
Compressor	Airflow rate	cfm	8,474			7,062		
			240			200		
			4,000			3,333		
		Control, Driving mechanism	Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor		
			Motor output			kW		
	External static press.	0 in WG (0Pa)			0 in WG (0Pa)			
		Type x Quantity			Inverter scroll hermetic compressor x1			
		Starting method			Inverter			
		Motor output			kW			
		Case heater			kW			
Lubricant			MEL46EH					
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color/MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color/MUNSELL 5Y 8/1>		
External dimension H x W x D			in. 70-13/16 x 47-15/16 x 29-7/16			in. 70-13/16 x 36-1/4 x 29-7/16		
			mm 1,798 x 1,217 x 747			mm 1,798 x 1,217 x 747		
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
		Inverter circuit (COMP./FAN) Compressor			Inverter circuit (COMP./FAN) Compressor			
	Fan motor	Over-current protection			Over-current protection			
		Fan motor			Fan motor			
Refrigerant	Type x original charge	R32 x 13lbs 15oz (6.3kg)			R32 x 11lbs 11oz (5.3kg)			
	Control	Indoor LEV and BC controller			Indoor LEV and BC controller			
Net weight	lbs (kg)	712 (323)			611 (277)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			-			-		
Pipe between unit and distributor	Liquid pipe	in. (mm)	7/8 (22.2) Brazed			7/8 (22.2) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			1-1/8 (28.58) Brazed		
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost		
Optional parts	Twinning kit	CMY-R300NCBK			CMY-R300NCBK			
		Joint			CMY-Y102SS-G2 , CMY-Y102LS-G2			
		Main BC controller			CMB-M104/106/108/1012NU-MA1-SV			
		Sub BC controller			CMB-M104/108NU-MB1-SV			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

R2-Series

High efficiency

R32

PURY-EM TSXU-A (208-230V)



Outdoor Model			PURY-EM312TSXU-A			PURY-EM336TSXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	312,000			336,000		
		kW	91.4			98.5		
(208-230)	(Rated)	Power input	25.19			28.82		
		Current input	A 77.6-70.2			88.8-80.3		
(208-230)	(Rated)	BTU/h	298,000			320,000		
		kW	87.3			93.8		
(208-230)	(Rated)	Power input	25.91		25.28	29.38		28.20
		Current input	79.9-72.2		77.9-70.5	90.6-81.9		86.9-78.6
Temp. range of cooling	*4	Indoor	W.B. 59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)		
		Outdoor	D.B. 23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)		
Heating capacity (Nominal)	*2	BTU/h	350,000			378,000		
		kW	102.6			110.8		
(208-230)	(Rated)	Power input	26.52			29.58		
		Current input	A 81.7-73.9			91.2-82.5		
(208-230)	(Rated)	BTU/h	334,000			360,000		
		kW	97.9			105.5		
(208-230)	(Rated)	Power input	27.12		26.56	30.91		28.79
		Current input	83.6-75.6		81.9-74.0	95.3-86.2		88.7-80.2
Temp. range of heating	*4	Indoor	D.B. 59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)		
		Outdoor	W.B. -22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)		
Indoor unit connectable		Total capacity	50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity		
		Model/Maximum quantity	M04~M96/50			M04~M96/50		
Sound power level (measured in anechoic room)		*3	dB <A> 84.0/89.5			84.0/92.0		
Refrigerant piping diameter		Liquid pipe	in. (mm) 1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)		
		Gas pipe	in. (mm) 1-5/8 Brazed (41.28 Brazed)			1-5/8 Brazed (41.28 Brazed)		

Set Model

Model			PURY-EM168TXU-A	PURY-EM144TXU-A	PURY-EM168TXU-A	PURY-EM168TXU-A	
Minimum Circuit Ampacity (208/230)		A	60/60	60/60	60/60	60/60	
Maximum Overcurrent Protection (208/230)		A	100/100	100/100	100/100	100/100	
FAN	*5	Type x Quantity	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	
		Airflow rate	cfm	10,593	8,474	10,593	10,593
			m³/min	300	240	300	300
			L/s	5,000	4,000	5,000	5,000
	Control, Driving mechanism	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor		
	Motor output	kW	0.46	0.46	0.46	0.46	
	External static press.		0 in WG (0Pa)	0 in WG (0Pa)	0 in WG (0Pa)	0 in WG (0Pa)	
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1		
	Starting method		Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	11.5	9.0	11.5	11.5	
	Case heater	kW	0.048	0.048	0.048	0.048	
	Lubricant		MEL46EH	MEL46EH	MEL46EH	MEL46EH	
External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16	70-13/16 x 47-15/16 x 29-7/16	70-13/16 x 47-15/16 x 29-7/16	70-13/16 x 47-15/16 x 29-7/16	
		mm	1,798 x 1,217 x 747	1,798 x 1,217 x 747	1,798 x 1,217 x 747	1,798 x 1,217 x 747	
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	
	Inverter circuit (COMP/FAN)		Over-current protection	Over-current protection	Over-current protection	Over-current protection	
	Compressor		-	-	-	-	
	Fan motor		-	-	-	-	
Refrigerant	Type x original charge	R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)		
	Control	Indoor LEV and BC controller		Indoor LEV and BC controller			
Net weight	lbs (kg)	712 (323)	712 (323)	712 (323)	712 (323)		
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)		-		-			
Pipe between unit and distributor	Liquid pipe	in. (mm)	7/8 (22.2) Brazed	7/8 (22.2) Brazed	7/8 (22.2) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed		
Defrosting method		Reverse defrost , Liquid backless defrost		Reverse defrost , Liquid backless defrost			
Optional parts	Twinning kit		CMY-R300NCBK	CMY-R300NCBK			
	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2	CMY-Y102SS-G2 , CMY-Y102LS-G2			
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV	CMB-M104/106/108/1012NU-MA1-SV			
	Sub BC controller		CMB-M104/108NU-MB1-SV	CMB-M104/108NU-MB1-SV			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F D.B./67 °F W.B. (26.7 °C D.B./19.4 °C W.B.), Outdoor: 95 °F D.B. (35 °C D.B.)
 - Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F D.B. (21.1 °C D.B.), Outdoor: 47 °F D.B./43 °F W.B. (8.3 °C D.B./6.1 °C W.B.)
 - Cooling mode / Heating mode
 - 4.-10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12.2 °F W.B.) to 21 °C D.B. (69.8 °F D.B.)/15.5 °C W.B. (59 °F W.B.) with cooling/heating mixed operation.
 - External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

R2-Series

High efficiency

R32

PURY-EM TSXU-A (208-230V)



Outdoor Model				PURY-EM360TSXU-A				PURY-EM384TSXU-A			
Indoor Model				Non-Ducted		Ducted		Non-Ducted		Ducted	
Power source				3-phase 3-wire 208-230V±10% 60Hz				3-phase 3-wire 208-230V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h		360,000				384,000			
		kW		105.5				112.5			
(208-230)	Power input	kW		32.21				35.66			
		A		99.3-89.8				109.9-99.4			
(Rated)	Current input	BTU/h		344,000				368,000			
		kW		100.8				107.9			
(208-230)	Power input	kW		32.81		32.19		36.21		36.23	
		A		101.1-91.5		99.2-89.7		111.6-100.9		111.7-101.0	
Temp. range of cooling	*4	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)			
		Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h		380,000				384,000			
		kW		111.4				112.5			
(208-230)	Power input	kW		30.75				32.70			
		A		94.8-85.7				100.8-91.2			
(Rated)	Current input	BTU/h		362,000				368,000			
		kW		106.1				107.9			
(208-230)	Power input	kW		31.00		28.85		31.67		29.79	
		A		95.6-86.4		88.9-80.4		97.6-88.3		91.8-83.0	
Temp. range of heating		Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)			
		Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)			
Indoor unit connectable		Total capacity		50%~150% of outdoor unit capacity				50%~150% of outdoor unit capacity			
		Model/Maximum quantity		M04~M96/50				M04~M96/50			
Sound power level (measured in anechoic room)			*3	dB <A>		88.5/92.5		91.0/93.0			
Refrigerant piping diameter		Liquid pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)				1-1/8 Brazed (28.58 Brazed)			
		Gas pipe	in. (mm)	1-5/8 Brazed (41.28 Brazed)				1-5/8 Brazed (41.28 Brazed)			

Set Model

Model			PURY-EM192TXU-A	PURY-EM168TXU-A	PURY-EM192TXU-A	PURY-EM192TXU-A	
Minimum Circuit Ampacity (208/230)		A	60/60	60/60	60/60	60/60	
Maximum Overcurrent Protection (208/230)		A	100/100	100/100	100/100	100/100	
FAN	*5	Type x Quantity	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	
		Airflow rate	cfm	11,123	10,593	11,123	11,123
			m ³ /min	315	300	315	315
			L/s	5,250	5,000	5,250	5,250
	Control, Driving mechanism	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor		
	Motor output	kW	0.46	0.46	0.46	0.46	
	External static press.		0 in WG (0Pa)	0 in WG (0Pa)	0 in WG (0Pa)	0 in WG (0Pa)	
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1		
	Starting method	Inverter	Inverter	Inverter	Inverter		
	Motor output	kW	12.7	11.5	12.7	12.7	
	Case heater	kW	0.048	0.048	0.048	0.048	
	Lubricant		MEL46EH	MEL46EH	MEL46EH	MEL46EH	
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16	70-13/16 x 47-15/16 x 29-7/16	70-13/16 x 47-15/16 x 29-7/16	70-13/16 x 47-15/16 x 29-7/16	
		mm	1,798 x 1,217 x 747	1,798 x 1,217 x 747	1,798 x 1,217 x 747	1,798 x 1,217 x 747	
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	
	Inverter circuit (COMP/FAN)		Over-current protection	Over-current protection	Over-current protection	Over-current protection	
	Compressor		-	-	-	-	
	Fan motor		-	-	-	-	
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)	
	Control		Indoor LEV and BC controller	Indoor LEV and BC controller	Indoor LEV and BC controller	Indoor LEV and BC controller	
Net weight	lbs (kg)		712 (323)	712 (323)	712 (323)	712 (323)	
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	
HIC circuit (HIC: Heat Inter-Changer)			-	-	-	-	
Pipe between unit and distributor	Liquid pipe	in. (mm)	7/8 (22.2) Brazed	7/8 (22.2) Brazed	7/8 (22.2) Brazed	7/8 (22.2) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed	
Defrosting method			Reverse defrost , Liquid backless defrost	Reverse defrost , Liquid backless defrost	Reverse defrost , Liquid backless defrost	Reverse defrost , Liquid backless defrost	
Optional parts	Twinning kit		CMY-R300NCBK	CMY-R300NCBK	CMY-R300NCBK	CMY-R300NCBK	
	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2	CMY-Y102SS-G2 , CMY-Y102LS-G2	CMY-Y102SS-G2 , CMY-Y102LS-G2	CMY-Y102SS-G2 , CMY-Y102LS-G2	
	Main BC controller		CMB-M104/106/108/1012NU-MB1-SV	CMB-M104/106/108/1012NU-MB1-SV	CMB-M104/106/108/1012NU-MB1-SV	CMB-M104/106/108/1012NU-MB1-SV	
	Sub BC controller		CMB-M104/108NU-MB1-SV	CMB-M104/108NU-MB1-SV	CMB-M104/108NU-MB1-SV	CMB-M104/108NU-MB1-SV	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

R2-Series

High efficiency

R32

PURY-GM TXU-A (208-230V)



Indoor Model			PURY-GM192TXU-A			PURY-GM216TXU-A			PURY-GM240TXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz			3-phase 3-wire 208-230V±10% 60Hz		
Cooling capacity (Nominal)			*1	BTU/h	192,000		216,000		240,000		
				kW	56.3		63.3		70.3		
(208-230)	Power input	kW	14.02		16.37		19.29				
		Current input	A	43.2-39.1		50.4-45.6		59.4-53.8			
	(Rated)	BTU/h	184,000		206,000		230,000				
		kW	53.9		60.4		67.4				
(208-230)	Power input	kW	13.59		13.67		15.72		15.70		
		Current input	A	41.9-37.9		42.1-38.1		48.4-43.8		48.4-43.7	
	Temp. range of *4 cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)		59.0~75.0°FWB (15.0~24.0°CWB)		59.0~75.0°FWB (15.0~24.0°CWB)		59.0~75.0°FWB (15.0~24.0°CWB)	
		Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)		23.0~126.0°FDB (-5.0~52.0°CDB)		23.0~126.0°FDB (-5.0~52.0°CDB)		23.0~126.0°FDB (-5.0~52.0°CDB)	
Heating capacity (Nominal)			*2	BTU/h	215,000		243,000		260,000		
				kW	63.0		71.2		76.2		
(208-230)	Power input	kW	15.27		17.31		20.99				
		Current input	A	47.0-42.5		53.3-48.2		64.7-58.5			
	(Rated)	BTU/h	204,000		232,000		258,000				
		kW	59.8		68.0		75.6				
(208-230)	Power input	kW	14.51		15.08		17.21		17.88		
		Current input	A	44.7-40.4		46.5-42.0		53.0-48.0		55.1-49.8	
	Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)		59.0~81.0°FDB (15.0~27.0°CDB)		59.0~81.0°FDB (15.0~27.0°CDB)		59.0~81.0°FDB (15.0~27.0°CDB)	
		Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)		-22.0~60.0°FWB (-30.0~15.5°CWB)		-22.0~60.0°FWB (-30.0~15.5°CWB)		-22.0~60.0°FWB (-30.0~15.5°CWB)	
Indoor unit connectable			Total capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity		
Model/Maximum quantity			M04~M96/39			M04~M96/44			M04~M96/49		
Sound power level (measured in anechoic room) *3			dB <A> 80.0/84.5			81.5/86.5			82.5/89.5		
Refrigerant piping diameter			High pressure		in. (mm) 7/8 Braze (22.2 Braze)		7/8 Braze (22.2 Braze)		7/8 Braze (22.2 Braze)		
			Low pressure		1-1/8 Braze (28.58 Braze)		1-3/8 Braze (34.93 Braze)		1-3/8 Braze (34.93 Braze)		
Minimum Circuit Ampacity (208/230)			A		82/80		92/91		102/102		
Maximum Overcurrent Protection (208/230)			A		110/110		125/125		125/125		
FAN			*5	Type x Quantity	Propeller fan x 2		Propeller fan x 2		Propeller fan x 2		
				Airflow rate	cfm	12,712		13,418		14,654	
					m³/min	360		380		415	
					L/s	6,000		6,333		6,917	
Control, Driving mechanism			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor		
Motor output			kW		0.92 + 0.92		0.92 + 0.92		0.92 + 0.92		
External static press.			0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)		
Compressor			Type x Quantity		Inverter scroll hermetic compressor ×2		Inverter scroll hermetic compressor ×2		Inverter scroll hermetic compressor ×2		
			Starting method		Inverter		Inverter		Inverter		
			Motor output	kW	5.5 + 5.5		6.3 + 6.3		7.4 + 7.4		
			Case heater	kW	0.045 + 0.045		0.045 + 0.045		0.045 + 0.045		
Lubricant			MEL46EH			MEL46EH			MEL46EH		
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D			in.	79-3/4 x 76-7/8 x 29-1/2		79-3/4 x 76-7/8 x 29-1/2		79-3/4 x 76-7/8 x 29-1/2			
				mm	2,025 x 1,952 x 748		2,025 x 1,952 x 748		2,025 x 1,952 x 748		
Protection devices			High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
			Inverter circuit (COMP/FAN)		Over-current protection		Over-current protection		Over-current protection		
			Compressor		-		-		-		
			Fan motor		-		-		-		
Refrigerant			Type x original charge			R32 x 23lbs 6oz (10.6kg)			R32 x 23lbs 6oz (10.6kg)		
Control			Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller		
Net weight			lbs (kg)		1,316 (597)		1,325 (601)		1,332 (604)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)			-			-			-		
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost		
Optional parts			Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2		
			Main BC controller		CMB-M104/106/108/1012NU-MA1-SV		CMB-M104/106/108/1012NU-MA1-SV		CMB-M104/106/108/1012NU-MA1-SV		
			Sub BC controller		CMB-M104/108NU-MB1-SV		CMB-M104/108NU-MB1-SV		CMB-M104/108NU-MB1-SV		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

Notes:

- 1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °FD.B./67 °FW.B. (26.7 °CD.B./19.4 °CW.B.) , Outdoor: 95 °FD.B. (35 °CD.B.)
- 2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °FD.B. (21.1 °CD.B.) , Outdoor: 47 °FD.B./43 °FW.B. (8.3 °CD.B./6.1 °CW.B.)
- 3.Cooling mode / Heating mode
4.-10°CD.B. (14°FD.B.)/-11°CW.B. (12.2°FW.B.) to 21°CD.B. (69.8°FD.B.)/15.5°CW.B. (59°FW.B.) with cooling/heating mixed operation.
- 5.External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (Cooling and heating in model GM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

R2-Series

High efficiency

R32

PURY-EM YXU-A (460V)



Outdoor Model			PURY-EM72YXU-A			PURY-EM96YXU-A			PURY-EM120YXU-A			
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)			*1	BTU/h	72,000			96,000			120,000	
				kW	21.1			28.1			35.2	
(460)			Power input	kW	4.49			6.33			8.54	
				Current input	A	6.2			8.8			11.9
(Rated)				BTU/h	69,000			92,000			115,000	
				kW	20.2			27.0			33.7	
(460)			Power input	kW	4.33	4.51	6.10		6.40	8.40	8.54	
				Current input	A	6.0	6.2	8.5		8.9	11.7	11.9
Temp. range of *4 cooling			Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)		59.0~75.0°F WB (15.0~24.0°CWB)			
				Outdoor	D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)		23.0~126.0°F DB (-5.0~52.0°CDB)		23.0~126.0°F DB (-5.0~52.0°CDB)		
Heating capacity (Nominal)			*2	BTU/h	80,000		108,000		135,000			
				kW	23.4		31.7		39.6			
(460)			Power input	kW	5.18		7.12		9.93			
				Current input	A	7.2		9.9		13.8		
(Rated)				BTU/h	76,000		103,000		129,000			
				kW	22.3		30.2		37.8			
(460)			Power input	kW	4.57	5.21	6.57		7.14	8.95	9.55	
				Current input	A	6.3	7.2	9.1		9.9	12.4	13.3
Temp. range of heating			Indoor	D.B.	59.0~81.0°F DB (15.0~27.0°CDB)		59.0~81.0°F DB (15.0~27.0°CDB)		59.0~81.0°F DB (15.0~27.0°CDB)			
				Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)		-22.0~60.0°F WB (-30.0~15.5°CWB)		
Indoor unit connectable			Total capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			
			Model/Maximum quantity			M04~M96/14			M04~M96/19			
Sound power level (measured in anechoic room) *3			dB <A>			76.5/78.5			77.5/80.0			
Refrigerant piping diameter			in. (mm)	High pressure			5/8 Braze (15.88 Braze)			3/4 Braze (19.05 Braze)		
				Low pressure			3/4 Braze (19.05 Braze)			7/8 Braze (22.2 Braze)		
Minimum Circuit Ampacity			A			22			27			
Maximum Overcurrent Protection			A			35			45			
FAN *5			Type x Quantity	Propeller fan x 1			Propeller fan x 1			Propeller fan x 1		
				Airflow rate	cfm	6,356		6,532		7,062		
m³/min	180		185		200							
L/s	3,000		3,083		3,333							
			Control, Driving mechanism			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			
			Motor output			kW			0.92			
			External static press.			0 in WG (0Pa)			0 in WG (0Pa)			
Compressor			Type x Quantity			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			
			Starting method			Inverter			Inverter			
			Motor output			kW			3.5			
			Case heater			kW			0.045			
			Lubricant			MEL46EH			MEL46EH			
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D			in. mm	70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16			70-13/16 x 36-1/4 x 29-7/16		
				1,798 x 920 x 747			1,798 x 920 x 747			1,798 x 920 x 747		
Protection devices			High pressure protection			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
			Inverter circuit (COMP./FAN)			Over-current protection			Over-current protection			
			Compressor			-			-			
			Fan motor			-			-			
Refrigerant			Type x original charge			R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)			
			Control			Indoor LEV and BC controller			Indoor LEV and BC controller			
Net weight			lbs (kg)			633 (287)			633 (289)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
HIC circuit (HIC: Heat Inter-Changer)			-			-			-			
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			
Optional parts			Joint			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			
			Main BC controller			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			
			Sub BC controller			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

R2-Series

High efficiency

R32

PURY-EM YXU-A (460V)



Outdoor Model			PURY-EM144YXU-A			PURY-EM168YXU-A			PURY-EM192YXU-A					
Indoor Model			Non-Ducted			Ducted			Non-Ducted			Ducted		
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	144,000			168,000			192,000					
		kW	42.2			49.2			56.3					
	(460)	Power input	kW 10.43			13.22			16.19					
		Current input	A 14.5			18.4			22.5					
(Rated)		BTU/h	138,000			160,000			184,000					
		kW	40.4			46.9			53.9					
	(460)	Power input	kW 10.51 10.60			13.24 13.20			16.08 16.22					
		Current input	A 14.6 14.7			18.4 18.4			22.4 22.6					
Temp. range of cooling	*4	Indoor	W.B. 59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)					
		Outdoor	D.B. 23.0~126.0°F FDB (-5.0~52.0°CDB)			23.0~126.0°F FDB (-5.0~52.0°CDB)			23.0~126.0°F FDB (-5.0~52.0°CDB)					
Heating capacity (Nominal)	*2	BTU/h	160,000			188,000			192,000					
		kW	46.9			55.1			56.3					
	(460)	Power input	kW 11.68			14.64			15.89					
		Current input	A 16.2			20.4			22.1					
(Rated)		BTU/h	152,000			178,000			184,000					
		kW	44.5			52.2			53.9					
	(460)	Power input	kW 10.75 11.37			13.38 14.17			13.75 14.60					
		Current input	A 14.9 15.8			18.6 19.7			19.1 20.3					
Temp. range of heating		Indoor	D.B. 59.0~81.0°F FDB (15.0~27.0°CDB)			59.0~81.0°F FDB (15.0~27.0°CDB)			59.0~81.0°F FDB (15.0~27.0°CDB)					
		Outdoor	W.B. -22.0~60.0°F FWB (-30.0~15.5°CWB)			-22.0~60.0°F FWB (-30.0~15.5°CWB)			-22.0~60.0°F FWB (-30.0~15.5°CWB)					
Indoor unit connectable		Total capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			
		Model/Maximum quantity			M04~M96/29			M04~M96/34			M04~M96/39			
Sound power level (measured in anechoic room) *3		dB <A>			80.5/82.5			80.5/88.5			87.5/89.5			
Refrigerant piping diameter	High pressure		in. (mm)			7/8 Brazed (22.2 Brazed)			7/8 Brazed (22.2 Brazed)			7/8 Brazed (22.2 Brazed)		
	Low pressure					1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)		
Minimum Circuit Ampacity		A		31			31			31				
Maximum Overcurrent Protection		A		50			50			50				
FAN	*5	Type x Quantity		Propeller fan x 2			Propeller fan x 2			Propeller fan x 2				
		Airflow rate	cfm			8,474			10,593			11,123		
			m³/min			240			300			315		
			L/s			4,000			5,000			5,250		
Control, Driving mechanism		Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			
Motor output		kW		0.46			0.46			0.46				
External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1		
	Starting method		Inverter			Inverter			Inverter			Inverter		
	Motor output		kW		9.0			11.5			12.7			
	Case heater		kW		0.048			0.048			0.048			
Lubricant		MEL46EH			MEL46EH			MEL46EH			MEL46EH			
External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D		in.		70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16				
		mm		1,798 x 1,217 x 747			1,798 x 1,217 x 747			1,798 x 1,217 x 747				
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP./FAN)		Over-current protection			Over-current protection			Over-current protection			Over-current protection		
	Compressor		-			-			-			-		
Refrigerant	Fan motor		-			-			-			-		
	Type x original charge		R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)		
Control		Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller			
Net weight		lbs (kg)		745 (338)			745 (338)			745 (338)				
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
HIC circuit (HIC: Heat Inter-Changer)		-			-			-			-			
Defrosting method		Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			
Optional parts	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2		
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV		
	Sub BC controller		CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB, (26.7 °C DB / 19.4 °C WB), Outdoor: 95 °F DB, (35 °C DB.)
 - Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB, (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB, (8.3 °C DB / 6.1 °C WB.)
 - Cooling mode / Heating mode
 - 4.-10 °C DB, (14 °F DB.) / -11 °C WB, (12.2 °F WB.) to 21 °C DB, (69.8 °F DB.) / 15.5 °C WB, (59 °F WB.) with cooling/heating mixed operation.
 - External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

BTU/h =kW x 3.412
cfm =m³/min x 35.31
lbs =kg/0.4536

*Above specification data is subject to rounding variation.

R2-Series

High efficiency

R32

PURY-EM YSXU-A (460V)



Outdoor Model			PURY-EM264YSXU-A			PURY-EM288YSXU-A		
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU/h	264,000			288,000		
		kW	77.4			84.4		
	(460)	Power input	kW 19.53			21.94		
		Current input	A 27.2			30.5		
(Rated)		BTU/h	252,000			276,000		
		kW	73.9			80.9		
	(460)	Power input	kW 19.97			20.05		
		Current input	A 27.8			27.9		
Temp. range of cooling	*4	Indoor	W.B. 59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)		
	Outdoor	D.B. 23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	295,000			323,000		
		kW	86.5			94.7		
	(460)	Power input	kW 21.63			23.65		
		Current input	A 30.1			32.9		
(Rated)		BTU/h	280,000			304,000		
		kW	82.1			89.1		
	(460)	Power input	kW 21.78			21.40		
		Current input	A 30.3			29.8		
Temp. range of heating		Indoor	D.B. 59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)		
	Outdoor	W.B. -22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)			
Indoor unit connectable		Total capacity	50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity		
		Model/Maximum quantity	M04~M96/50			M04~M96/50		
Sound power level (measured in anechoic room)		*3	dB <A> 83.5/86.5			84.0/86.0		
Refrigerant piping diameter		Liquid pipe	in. (mm) 1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)		
		Gas pipe	in. (mm) 1-3/8 Brazed (34.93 Brazed)			1-3/8 Brazed (34.93 Brazed)		
Set Model								
Model			PURY-EM144YXU-A		PURY-EM120YXU-A		PURY-EM144YXU-A	
Minimum Circuit Ampacity		A	31		27		31	
Maximum Overcurrent Protection		A	50		45		50	
FAN	*5	Type x Quantity	Propeller fan x 2		Propeller fan x 1		Propeller fan x 2	
		Airflow rate	cfm 8,474		7,062		8,474	
			m³/min 240		200		240	
			L/s 4,000		3,333		4,000	
Control, Driving mechanism		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		
Motor output		kW 0.46		0.92		0.46		
External static press.		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		
Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		Inverter scroll hermetic compressor ×1		
	Starting method	Inverter		Inverter		Inverter		
	Motor output	kW 9.0		7.5		9.0		
	Case heater	kW 0.048		0.045		0.048		
	Lubricant	MEL46EH		MEL46EH		MEL46EH		
External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 47-15/16 x 29-7/16		70-13/16 x 36-1/4 x 29-7/16		70-13/16 x 47-15/16 x 29-7/16	
		mm	1,798 x 1,217 x 747		1,798 x 920 x 747		1,798 x 1,217 x 747	
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP./FAN)	Over-current protection		Over-current protection		Over-current protection		
	Compressor	-		-		-		
Refrigerant	Fan motor	-		-		-		
	Type x original charge	R32 x 13lbs 15oz (6.3kg)		R32 x 11lbs 11oz (5.3kg)		R32 x 13lbs 15oz (6.3kg)		
Control		Indoor LEV and BC controller				Indoor LEV and BC controller		
Net weight		lbs (kg)	745 (338)		637 (289)		745 (338)	
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)		-		-		-		
Pipe between unit and distributor	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		3/4 (19.05) Brazed		7/8 (22.2) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Defrosting method		Reverse defrost , Liquid backless defrost				Reverse defrost , Liquid backless defrost		
Optional parts	Twinning kit	CMY-R300NCBK				CMY-R300NCBK		
	Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2				CMY-Y102SS-G2 , CMY-Y102LS-G2		
	Main BC controller	CMB-M104/106/108/1012NU-MA1-SV				CMB-M104/106/108/1012NU-MA1-SV		
Sub BC controller		CMB-M104/108NU-MB1-SV				CMB-M104/108NU-MB1-SV		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		

R2-Series

High efficiency

R32

PURY-EM YSXU-A (460V)



Outdoor Model			PURY-EM312YSXU-A				PURY-EM336YSXU-A			
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz				3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	312,000				336,000			
		kW	91.4				98.5			
(460)	Power input	kW	25.19				28.82			
		A	35.1				40.1			
(Rated)	BTU/h	BTU/h	298,000				320,000			
		kW	87.3				93.8			
(460)	Power input	kW	25.91	25.28		29.38	28.20			
		A	36.1	35.2		40.9	39.3			
Temp. range of cooling	*4	Indoor	W.B. 59.0~75.0°F WB (15.0~24.0°CWB)				59.0~75.0°F WB (15.0~24.0°CWB)			
		Outdoor	D.B. 23.0~126.0°F DB (-5.0~52.0°CDB)				23.0~126.0°F DB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	350,000				378,000			
		kW	102.6				110.8			
(460)	Power input	kW	26.52				29.58			
		A	36.9				41.2			
(Rated)	BTU/h	BTU/h	334,000				360,000			
		kW	97.9				105.5			
(460)	Power input	kW	27.12	26.56		30.91	28.79			
		A	37.8	37.0		43.1	40.1			
Temp. range of heating	*4	Indoor	D.B. 59.0~81.0°F DB (15.0~27.0°CDB)				59.0~81.0°F DB (15.0~27.0°CDB)			
		Outdoor	W.B. -22.0~60.0°F WB (-30.0~15.5°CWB)				-22.0~60.0°F WB (-30.0~15.5°CWB)			
Indoor unit connectable	*3	Total capacity	50%~150% of outdoor unit capacity				50%~150% of outdoor unit capacity			
		Model/Maximum quantity	M04~M96/50				M04~M96/50			
Sound power level (measured in anechoic room)		*3	84.0/89.5				84.0/92.0			
Refrigerant piping diameter	in. (mm)	Liquid pipe	1-1/8 Brazed (28.58 Brazed)				1-1/8 Brazed (28.58 Brazed)			
		Gas pipe	1-5/8 Brazed (41.28 Brazed)				1-5/8 Brazed (41.28 Brazed)			

Set Model

Model			PURY-EM168YXU-A		PURY-EM144YXU-A		PURY-EM168YXU-A		PURY-EM168YXU-A			
Minimum Circuit Ampacity			A	31		31		31		31		
Maximum Overcurrent Protection			A	50		50		50		50		
FAN	*5 Type x Quantity	Propeller fan x 2			Propeller fan x 2			Propeller fan x 2				
		Airflow rate	cfm	10,593	8,474	10,593	10,593					
			m³/min	300	240	300	300					
			L/s	5,000	4,000	5,000	5,000					
	Control, Driving mechanism		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor			
	Motor output		kW 0.46		0.46		0.46					
External static press.			0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
Compressor	Type x Quantity		Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			
	Starting method		Inverter			Inverter			Inverter			
	Motor output		kW 11.5			9.0			11.5			
	Case heater		kW 0.048			0.048			0.048			
	Lubricant		MEL46EH			MEL46EH			MEL46EH			
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D			in.	70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16			70-13/16 x 47-15/16 x 29-7/16		
			mm	1,798 x 1,217 x 747			1,798 x 1,217 x 747			1,798 x 1,217 x 747		
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			
	Inverter circuit (COMP/FAN)		Over-current protection			Over-current protection			Over-current protection			
	Compressor											
	Fan motor		-			-			-			
Refrigerant	Type x original charge		R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)			
	Control		Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller			
Net weight			lbs (kg)	745 (338)			745 (338)			745 (338)		
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
HIC circuit (HIC: Heat Inter-Changer)			-			-			-			
Pipe between unit and distributor	Liquid pipe		in. (mm)	7/8 (22.2) Brazed			7/8 (22.2) Brazed			7/8 (22.2) Brazed		
	Gas pipe		in. (mm)	1-1/8 (28.58) Brazed			1-1/8 (28.58) Brazed			1-1/8 (28.58) Brazed		
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			
Optional parts	Twinning kit		CMY-R300NCBK			CMY-R300NCBK			CMY-R300NCBK			
	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			
	Sub BC controller		CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Notes:

- 1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °FD.B./67 °FW.B. (26.7 °CD.B./19.4 °CW.B.) , Outdoor: 95 °FD.B. (35 °CD.B.)
- 2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °FD.B. (21.1 °CD.B.) , Outdoor: 47 °FD.B./43 °FW.B. (8.3 °CD.B./6.1 °CW.B.)
- 3.Cooling mode / Heating mode
- 4.-10°CD.B. (14°FD.B.)/-11°CW.B. (12.2°FW.B.) to 21°CD.B. (69.8°FD.B.)/15.5°CW.B. (59°FW.B.) with cooling/heating mixed operation.
- 5.External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option. (the setting is only available for cooling and heating in models EM72 to EM144 and EM264 to EM288, and for cooling in models EM168 and EM312 to EM336.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

R2-Series

High efficiency

R32

PURY-EM YSXU-A (460V)



Outdoor Model			PURY-EM360YSXU-A				PURY-EM384YSXU-A			
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz				3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	360,000				384,000			
		kW	105.5				112.5			
(460)	Power input	kW	32.21				35.66			
		A	44.9				49.7			
(Rated)	BTU/h	BTU/h	344,000				368,000			
		kW	100.8				107.9			
(460)	Power input	kW	32.81		32.19		36.21		36.23	
		A	45.7		44.8		50.4		50.5	
Temp. range of cooling	*4	Indoor	W.B. 59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)			
		Outdoor	D.B. 23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	380,000				384,000			
		kW	111.4				112.5			
(460)	Power input	kW	30.75				32.70			
		A	42.8				45.6			
(Rated)	BTU/h	BTU/h	362,000				368,000			
		kW	106.1				107.9			
(460)	Power input	kW	31.00		28.85		31.67		29.79	
		A	43.2		40.2		44.1		41.5	
Temp. range of heating		Indoor	D.B. 59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)			
		Outdoor	W.B. -22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)			
Indoor unit connectable		Total capacity	50%~150% of outdoor unit capacity				50%~150% of outdoor unit capacity			
		Model/Maximum quantity	M04~M96/50				M04~M96/50			
Sound power level (measured in anechoic room)	*3	dB <A>	88.5/92.5				91.0/93.0			
Refrigerant piping diameter		Liquid pipe	in. (mm) 1-1/8 Brazed (28.58 Brazed)				1-1/8 Brazed (28.58 Brazed)			
		Gas pipe	in. (mm) 1-5/8 Brazed (41.28 Brazed)				1-5/8 Brazed (41.28 Brazed)			

R2-Series

High efficiency

R32

PURY-GM YXU-A (460V)



Outdoor Model			PURY-GM192YXU-A				PURY-GM216YXU-A				PURY-GM240YXU-A							
Indoor Model			Non-Ducted				Ducted				Non-Ducted				Ducted			
Power source			3-phase 3-wire 460V±10% 60Hz				3-phase 3-wire 460V±10% 60Hz				3-phase 3-wire 460V±10% 60Hz							
Cooling capacity (Nominal)	*1	BTU/h	192,000				216,000				240,000							
		kW	56.3				63.3				70.3							
		Power input	kW				16.37				19.29							
		Current input	A				22.8				26.9							
		(Rated)	BTU/h	184,000				206,000				230,000						
			kW	53.9				60.4				67.4						
	(460)	Power input	kW		13.59		13.67		15.72		15.70		18.72		18.30			
		Current input	A		18.9		19.0		21.9		21.8		26.1		25.5			
		Temp. range of cooling	Indoor	W.B.		59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)				
			Outdoor	D.B.		23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)				
		Heating capacity (Nominal)	*2	BTU/h	215,000				243,000				260,000					
				kW	63.0				71.2				76.2					
Power input	kW				17.31				20.99									
Current input	A				24.1				29.2									
(Rated)	BTU/h			204,000				232,000				258,000						
	kW			59.8				68.0				75.6						
(460)	Power input		kW		14.51		15.08		17.21		17.88		22.12		21.30			
	Current input		A		20.2		21.0		24.0		24.9		30.8		29.7			
	Temp. range of heating		Indoor	D.B.		59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)				
			Outdoor	W.B.		-22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)				
	Indoor unit connectable		Total capacity		50%~150% of outdoor unit capacity				50%~150% of outdoor unit capacity				50%~150% of outdoor unit capacity					
			Model/Maximum quantity		M04~M96/39				M04~M96/44				M04~M96/49					
Sound power level (measured in anechoic room)			*3		dB <A>		80.0/84.5		81.5/86.5		82.5/89.5							
Refrigerant piping diameter	High pressure		in. (mm)		7/8 Brazed (22.2 Brazed)				7/8 Brazed (22.2 Brazed)				7/8 Brazed (22.2 Brazed)					
	Low pressure				1-1/8 Brazed (28.58 Brazed)				1-3/8 Brazed (34.93 Brazed)				1-3/8 Brazed (34.93 Brazed)					
Minimum Circuit Ampacity			A		44		49		54									
Maximum Overcurrent Protection			A		60		70		70									
FAN	*5	Type x Quantity		Propeller fan x 2				Propeller fan x 2				Propeller fan x 2						
		Airflow rate	cfm	12,712				13,418				14,654						
				m³/min	360				380				415					
					L/s	6,000				6,333				6,917				
		Control, Driving mechanism		Inverter-control , Brushless DC motor				Inverter-control , Brushless DC motor				Inverter-control , Brushless DC motor						
	Motor output		kW		0.92 + 0.92		0.92 + 0.92		0.92 + 0.92									
	External static press.				0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)									
	Compressor	Type x Quantity		Inverter scroll hermetic compressor ×2				Inverter scroll hermetic compressor ×2				Inverter scroll hermetic compressor ×2						
		Starting method		Inverter		Inverter				Inverter								
		Motor output		kW		5.5 + 5.5		6.3 + 6.3		7.4 + 7.4								
Case heater		kW		0.045 + 0.045		0.045 + 0.045		0.045 + 0.045										
Lubricant				MEL46EH		MEL46EH		MEL46EH										
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>				Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>				Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>							
External dimension H x W x D			in.		79-3/4 x 76-7/8 x 29-1/2				79-3/4 x 76-7/8 x 29-1/2				79-3/4 x 76-7/8 x 29-1/2					
			mm		2,025 x 1,952 x 748				2,025 x 1,952 x 748				2,025 x 1,952 x 748					
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)				High pressure switch , Pressure sensor at 4.15MPa (601Psi)				High pressure switch , Pressure sensor at 4.15MPa (601Psi)							
	Inverter circuit (COMP/FAN)		Over-current protection				Over-current protection				Over-current protection							
	Compressor		-				-				-							
	Fan motor		-				-				-							
Refrigerant			Type x original charge		R32 x 23lbs 6oz (10.6kg)				R32 x 23lbs 6oz (10.6kg)				R32 x 23lbs 6oz (10.6kg)					
			Control		Indoor LEV and BC controller				Indoor LEV and BC controller				Indoor LEV and BC controller					
Net weight			lbs (kg)		1,376 (624)				1,378 (625)				1,380 (626)					
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes				Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes				Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes							
HIC circuit (HIC: Heat Inter-Changer)			-				-				-							
Defrosting method			Reverse defrost , Liquid backless defrost				Reverse defrost , Liquid backless defrost				Reverse defrost , Liquid backless defrost							
Optional parts	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2				CMY-Y102SS-G2 , CMY-Y102LS-G2				CMY-Y102SS-G2 , CMY-Y102LS-G2							
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV				CMB-M104/106/108/1012NU-MA1-SV				CMB-M104/106/108/1012NU-MA1-SV							
	Sub BC controller		CMB-M104/108NU-MB1-SV				CMB-M104/108NU-MB1-SV				CMB-M104/108NU-MB1-SV							
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.							

R2-Series

H2i

R32

PURY-HM TSXU-A (208-230V)



*Fin guards are optional parts sold separately.

Outdoor Model			PURY-HM144TSXU-A				PURY-HM192TSXU-A					
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted			
Power source			3-phase 3-wire 208-230V±10% 60Hz				3-phase 3-wire 208-230V±10% 60Hz					
Cooling capacity (Nominal)	*1	BTU/h	144,000				192,000					
		kW	42.2				56.3					
		Power input	kW		9.48				12.85			
(208-230)	(Rated)	Current input	A		29.2-26.4				39.6-35.8			
		BTU/h			138,000				184,000			
		kW			40.4				53.9			
(208-230)	(Rated)	Power input	kW		9.58		9.76		12.99		13.45	
		Current input	A		29.5-26.7		30.1-27.2		40.0-36.2		41.4-37.5	
		Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)				59.0~75.0°FWB (15.0~24.0°CWB)			
		Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)				23.0~126.0°FDB (-5.0~52.0°CDB)				
Heating capacity (Nominal)	*2	BTU/h	160,000				215,000					
		kW	46.9				63.0					
		Power input	kW		10.47				14.54			
(208-230)	(Rated)	Current input	A		32.2-29.2				44.8-40.5			
		BTU/h			152,000				204,000			
		kW			44.5				59.8			
(208-230)	(Rated)	Power input	kW		9.88		10.78		13.86		14.54	
		Current input	A		30.4-27.5		33.2-30.0		42.7-38.6		44.8-40.5	
		Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)				59.0~81.0°FDB (15.0~27.0°CDB)			
		Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)				-22.0~60.0°FWB (-30.0~15.5°CWB)				
Indoor unit connectable		Total capacity		50%~150% of outdoor unit capacity				50%~150% of outdoor unit capacity				
		Model/Maximum quantity		M04~M96/29				M04~M96/39				
Sound power level (measured in anechoic room)		*3	dB <A>	80.0 / 82.0				85.5 / 85.5				
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 Brazed (22.2 Brazed)				7/8 Brazed (22.2 Brazed)					
	Gas pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)				1-1/8 Brazed (28.58 Brazed)					

Set Model

Model			PURY-HM72TXU-A			PURY-HM72TXU-A			PURY-HM96TXU-A			PURY-HM96TXU-A					
Minimum Circuit Ampacity (208/230)			A		51/51			51/51			60/60			60/60			
Maximum Overcurrent Protection (208/230)			A		80/80			80/80			100/100			100/100			
FAN	*5	Type x Quantity		Propeller fan x 1			Propeller fan x 1			Propeller fan x 2			Propeller fan x 2				
		Airflow rate	cfm		6,356			6,356			9,181			9,181			
			m³/min		180			180			260			260			
			L/s		3,000			3,000			4,333			4,333			
		Control, Driving mechanism		Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor				
		Motor output		kW		0.92			0.92			0.46			0.46		
		External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x1			Inverter scroll hermetic compressor x1			Inverter scroll hermetic compressor x1			Inverter scroll hermetic compressor x1					
	Starting method		Inverter			Inverter			Inverter			Inverter					
	Motor output		kW		3.5			3.5			5.3			5.3			
	Case heater		kW		0.045			0.045			0.048			0.048			
	Lubricant		MEL46EH			MEL46EH			MEL46EH			MEL46EH					
	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		70-13/16 x 35-7/8 x 29-3/16			70-13/16 x 35-7/8 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16					
	mm		1,798 x 910 x 740			1,798 x 910 x 740			1,798 x 1,207 x 740			1,798 x 1,207 x 740					
Protection devices	High pressure protection		High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)					
	Inverter circuit (COMP/FAN)		Over-current protection			Over-current protection			Over-current protection			Over-current protection					
	Compressor		-			-			-			-					
	Fan motor		-			-			-			-					
Refrigerant	Type x original charge		R32 x 11lbs 11oz (5.3kg)			R32 x 11lbs 11oz (5.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)					
	Control		Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller					
Net weight			lbs (kg)		595 (270)			595 (270)			701 (318)			701 (318)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes					
HIC circuit (HIC: Heat Inter-Changer)			-			-			-			-					
Pipe between unit and distributor	Liquid pipe		in. (mm)		5/8 (15.88) Braze			5/8 (15.88) Braze			3/4 (19.05) Braze			3/4 (19.05) Braze			
	Gas pipe		in. (mm)		3/4 (19.05) Braze			3/4 (19.05) Braze			7/8 (22.2) Braze			7/8 (22.2) Braze			
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost					
Optional parts	Twinning kit		CMY-R100NCBK			CMY-R200NCBK			CMY-R200NCBK			CMY-R200NCBK					
	Joint		CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2					
	Fin guard		PAC-FG04B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E					
	Main BC controller		CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV					
	Sub BC controller		CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV					
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.						Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.								

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB. (26.7 °C DB / 19.4 °C WB.), Outdoor: 95 °F DB. (35 °C DB.)
 - Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB. (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB. (8.3 °C DB / 6.1 °C WB.)
 - Cooling mode / Heating mode
 - 4-10 °C DB. (14 °F DB.) / 11 °C WB. (12.2 °F WB.) to 21 °C DB. (69.8 °F DB.) / 15.5 °C WB. (59 °F WB.) with cooling/heating mixed operation.
 - External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa.)
Consult your dealer about the specification when setting External static pressure option.(Cooling and heating in models HM96 to HM120, and HM192 to HM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

R2-Series

H2i

R32

PURY-HM TSXU-A (208-230V)



*Fin guards are optional parts sold separately.

Outdoor Model			PURY-HM240TSXU-A			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 208-230V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	240,000			
		kW	70.3			
		Power input	kW 16.66			
(208-230) (Rated)	Current input	A	51.3-46.4			
		BTU/h	230,000			
		kW	67.4			
(208-230)	Power input	kW	16.59		16.94	
		Current input	A 51.1-46.2		52.2-47.2	
Temp. range of cooling	*4	Indoor	W.B. 59.0~75.0°FWB (15.0~24.0°CWB)			
		Outdoor	D.B. 23.0~126.0°FDB (-5.0~52.0°CDB)			
Heating capacity (Nominal)	*2	BTU/h	270,000			
		kW	79.1			
		Power input	kW 19.04			
(208-230) (Rated)	Current input	A	58.7-53.1			
		BTU/h	258,000			
		kW	75.6			
(208-230)	Power input	kW	18.70		19.78	
		Current input	A 57.6-52.1		61.0-55.1	
Temp. range of heating		Indoor	D.B. 59.0~81.0°FDB (15.0~27.0°CDB)			
		Outdoor	W.B. -22.0~60.0°FWB (-30.0~15.5°CWB)			
Indoor unit connectable	Total capacity		50%~150% of outdoor unit capacity			
	Model/Maximum quantity		M04~M96/49			
Sound power level (measured in anechoic room)		*3	dB <A> 85.5 / 87.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 Brazed (1-1/8 Brazed in pipe length over 213ft) (22.2 Brazed (28.28 Brazed in pipe length over 65m))			
	Gas pipe	in. (mm)	1-3/8 Brazed (34.93 Brazed)			

R2-Series

H2i

R32

PURY-HM YXU-A (460V)



*Fin guards are optional parts sold separately.

Outdoor Model			PURY-HM72YXU-A			PURY-HM96YXU-A			PURY-HM120YXU-A			
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	72,000			96,000			120,000			
		kW	21.1			28.1			35.2			
	(460)	Power input	kW			6.38			8.18			
		Current input	A			6.2			8.8			
	(Rated)	BTU/h	69,000			92,000			115,000			
		kW	20.2			27.0			33.7			
	(460)	Power input	kW			6.27			6.50			
		Current input	A			8.7			9.0			
	Temp. range of cooling	Indoor	W.B.	59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)			59.0~75.0°F WB (15.0~24.0°CWB)		
		Outdoor	D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)			23.0~126.0°F DB (-5.0~52.0°CDB)		
Heating capacity (Nominal)	*2	BTU/h	80,000			108,000			135,000			
		kW	23.4			31.7			39.6			
	(460)	Power input	kW			5.18			7.28			
		Current input	A			7.2			10.1			
	(Rated)	BTU/h	76,000			103,000			129,000			
		kW	22.3			30.2			37.8			
	(460)	Power input	kW			4.57			7.16			
		Current input	A			6.3			9.9			
	Temp. range of heating	Indoor	D.B.	59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)			59.0~81.0°F DB (15.0~27.0°CDB)		
		Outdoor	W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)			-22.0~60.0°F WB (-30.0~15.5°CWB)		
Indoor unit connectable	Total capacity		50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			
	Model/Maximum quantity		M04~M96/14			M04~M96/19			M04~M96/24			
Sound power level (measured in anechoic room) *3			dB <A>			82.0/82.0			82.0/83.5			
Refrigerant piping diameter	High pressure	in. (mm)	5/8 Braze (15.88 Braze)			3/4 Braze (19.05 Braze)			3/4 Braze (19.05 Braze)			
	Low pressure		3/4 Braze (19.05 Braze)			7/8 Braze (22.2 Braze)			1-1/8 Braze (28.58 Braze)			
Minimum Circuit Ampacity		A	27			31			31			
Maximum Overcurrent Protection		A	45			50			50			
FAN	*5	Type x Quantity	Propeller fan x 1			Propeller fan x 2			Propeller fan x 2			
		Airflow rate	cfm	6,356			9,181			9,181		
	m³/min		180			260			260			
	L/s		3,000			4,333			4,333			
	Control, Driving mechanism	Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor			Inverter-control , Brushless DC motor				
	Motor output	kW			0.92			0.46				
	External static press.		0 in WG (0Pa)			0 in WG (0Pa)			0 in WG (0Pa)			
	Compressor	Type x Quantity	Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			Inverter scroll hermetic compressor ×1			
Starting method		Inverter			Inverter			Inverter				
Motor output		kW			5.3			7.2				
Case heater		kW			0.045			0.048				
Lubricant		MEL46EH			MEL46EH			MEL46EH				
External finish			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>			
External dimension H x W x D	in.	70-13/16 x 35-7/8 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16			70-13/16 x 47-9/16 x 29-3/16				
	mm	1,798 x 910 x 740			1,798 x 1,207 x 740			1,798 x 1,207 x 740				
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)			High pressure switch , Pressure sensor at 4.15MPa (601Psi)				
	Inverter circuit (COMP/FAN)	Over-current protection			Over-current protection			Over-current protection				
	Compressor	-			-			-				
	Fan motor	-			-			-				
Refrigerant	Type x original charge	R32 x 11lbs 11oz (5.3kg)			R32 x 13lbs 15oz (6.3kg)			R32 x 13lbs 15oz (6.3kg)				
	Control	Indoor LEV and BC controller			Indoor LEV and BC controller			Indoor LEV and BC controller				
Net weight		lbs (kg)	626 (284)			739 (335)			739 (335)			
Heat exchanger			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes			
HIC circuit (HIC: Heat Inter-Changer)												
Defrosting method			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			Reverse defrost , Liquid backless defrost			
Optional parts	Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2			CMY-Y102SS-G2 , CMY-Y102LS-G2				
		PAC-FG04B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E			PAC-FG05B-E , PAC-FG03S-E				
	Main BC controller	CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV			CMB-M104/106/108/1012NU-MA1-SV				
		CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV			CMB-M104/108NU-MB1-SV				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB. (26.7 °C DB / 19.4 °CWB.), Outdoor: 95 °F DB. (35 °CDB.)
 - Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB. (21.1 °CDB.), Outdoor: 47 °F DB / 43 °F WB. (8.3 °CDB. / 6.1 °CWB.)
 - Cooling mode / Heating mode
 - 4-10 °CDB. (14 °F DB.) / 11 °CWB. (12.2 °F WB.) to 21 °CDB. (69.8 °F DB.) / 15.5 °CWB. (59 °F WB.) with cooling/heating mixed operation.
 - External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
- Consult your dealer about the specification when setting External static pressure option.(Cooling and heating in models HM96 to HM120, and HM192 to HM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

BTU/h	=kW x 3.412
cfm	=m ³ /min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

R2-Series

H2i

R32

PURY-HM YSXU-A (460V)



*Fin guards are optional parts sold separately.

Outdoor Model			PURY-HM144YSXU-A			PURY-HM192YSXU-A			
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V±10% 60Hz			3-phase 3-wire 460V±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	144,000			192,000			
		kW	42.2			56.3			
	(460)	Power input	kW		9.48		12.85		
		Current input	A		13.2		17.9		
	(Rated)	BTU/h	138,000			184,000			
		kW	40.4			53.9			
	(460)	Power input	kW		9.58	9.76	12.99		13.45
		Current input	A		13.3	13.6	18.1		18.7
	Temp. range of cooling	Indoor	W.B.	59.0~75.0°FWB (15.0~24.0°CWB)			59.0~75.0°FWB (15.0~24.0°CWB)		
		Outdoor	D.B.	23.0~126.0°FDB (-5.0~52.0°CDB)			23.0~126.0°FDB (-5.0~52.0°CDB)		
Heating capacity (Nominal)	*2	BTU/h	160,000			215,000			
		kW	46.9			63.0			
	(460)	Power input	kW		10.47		14.54		
		Current input	A		14.6		20.2		
	(Rated)	BTU/h	152,000			204,000			
		kW	44.5			59.8			
	(460)	Power input	kW		9.88	10.78	13.86		14.54
		Current input	A		13.7	15.0	19.3		20.2
	Temp. range of heating	Indoor	D.B.	59.0~81.0°FDB (15.0~27.0°CDB)			59.0~81.0°FDB (15.0~27.0°CDB)		
		Outdoor	W.B.	-22.0~60.0°FWB (-30.0~15.5°CWB)			-22.0~60.0°FWB (-30.0~15.5°CWB)		
Indoor unit connectable	Total capacity		50%~150% of outdoor unit capacity			50%~150% of outdoor unit capacity			
	Model/Maximum quantity		M04~M96/29			M04~M96/39			
Sound power level (measured in anechoic room)		*3 dB <A>	80.0 / 82.0			85.5 / 85.5			
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 Brazed (22.2 Brazed)			7/8 Brazed (22.2 Brazed)			
	Gas pipe	in. (mm)	1-1/8 Brazed (28.58 Brazed)			1-1/8 Brazed (28.58 Brazed)			

Set Model

Model		PURY-HM72YXU-A		PURY-HM72YXU-A		PURY-HM96YXU-A		PURY-HM96YXU-A		
Minimum Circuit Ampacity		A	27	27		31		31		
Maximum Overcurrent Protection		A	45	45		50		50		
FAN	*5	Type x Quantity	Propeller fan x 1		Propeller fan x 1		Propeller fan x 2		Propeller fan x 2	
		Airflow rate	cfm	6,356	6,356		9,181		9,181	
			m³/min	180	180		260		260	
			L/s	3,000	3,000		4,333		4,333	
		Control, Driving mechanism	Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor		Inverter-control , Brushless DC motor	
	Motor output	kW	0.92	0.92		0.46		0.46		
	Compressor	External static press.	0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)		0 in WG (0Pa)	
		Type x Quantity	Inverter scroll hermetic compressor x1		Inverter scroll hermetic compressor x1		Inverter scroll hermetic compressor x1		Inverter scroll hermetic compressor x1	
		Starting method	Inverter		Inverter		Inverter		Inverter	
		Motor output	kW	3.5	3.5		5.3		5.3	
Case heater		kW	0.045	0.045		0.048		0.048		
Lubricant		MEL46EH		MEL46EH		MEL46EH		MEL46EH		
External finish		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>		
External dimension H x W x D		in.	70-13/16 x 35-7/8 x 29-3/16		70-13/16 x 35-7/8 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16		70-13/16 x 47-9/16 x 29-3/16	
		mm	1,798 x 910 x 740		1,798 x 910 x 740		1,798 x 1,207 x 740		1,798 x 1,207 x 740	
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		High pressure switch , Pressure sensor at 4.15MPa (601Psi)		
	Inverter circuit (COMP./FAN)	Over-current protection		Over-current protection		Over-current protection		Over-current protection		
	Compressor	-		-		-		-		
	Fan motor	-		-		-		-		
Refrigerant	Type x original charge	R32 x 11lbs 11oz (5.3kg)		R32 x 11lbs 11oz (5.3kg)		R32 x 13lbs 15oz (6.3kg)		R32 x 13lbs 15oz (6.3kg)		
	Control	Indoor LEV and BC controller		Indoor LEV and BC controller		Indoor LEV and BC controller		Indoor LEV and BC controller		
Net weight		lbs (kg)	626 (284)		626 (284)		739 (335)		739 (335)	
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes		
HIC circuit (HIC: Heat Inter-Changer)		-		-		-		-		
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed		3/4 (19.05) Brazed		3/4 (19.05) Brazed	
	Gas pipe	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Defrosting method		Reverse defrost , Liquid backless defrost		Reverse defrost , Liquid backless defrost		Reverse defrost , Liquid backless defrost		Reverse defrost , Liquid backless defrost		
Optional parts		Twinning kit	CMY-R100NCBK		CMY-R200NCBK		CMY-R200NCBK		CMY-R200NCBK	
		Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2		CMY-Y102SS-G2 , CMY-Y102LS-G2	
		Fin guard	PAC-FG04B-E , PAC-FG03S-E		PAC-FG05B-E , PAC-FG03S-E		PAC-FG05B-E , PAC-FG03S-E		PAC-FG05B-E , PAC-FG03S-E	
		Main BC controller	CMB-M104/106/108/1012NU-MA1-SV		CMB-M104/106/108/1012NU-MA1-SV		CMB-M104/106/108/1012NU-MA1-SV		CMB-M104/106/108/1012NU-MA1-SV	
		Sub BC controller	CMB-M104/108NU-MB1-SV		CMB-M104/108NU-MB1-SV		CMB-M104/108NU-MB1-SV		CMB-M104/108NU-MB1-SV	
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				

R2-Series

H2i

R32

PURY-HM YSXU-A (460V)



*Fin guards are optional parts sold separately.

Outdoor Model		PURY-HM240YSXU-A	
Indoor Model		Non-Ducted	Ducted
Power source		3-phase 3-wire 460V±10% 60Hz	
Cooling capacity (Nominal)	*1 BTU/h	240,000	
	kW	70.3	
(460)	Power input kW	16.66	
	Current input A	23.2	
(Rated)	BTU/h	230,000	
	kW	67.4	
(460)	Power input kW	16.59	16.94
	Current input A	23.1	23.6
Temp. range of *4 cooling	Indoor W.B.	59.0~75.0°F WB (15.0~24.0°CWB)	
	Outdoor D.B.	23.0~126.0°F DB (-5.0~52.0°CDB)	
Heating capacity (Nominal)	*2 BTU/h	270,000	
	kW	79.1	
(460)	Power input kW	19.04	
	Current input A	26.5	
(Rated)	BTU/h	258,000	
	kW	75.6	
(460)	Power input kW	18.70	19.78
	Current input A	26.0	27.5
Temp. range of heating	Indoor D.B.	59.0~81.0°F DB (15.0~27.0°CDB)	
	Outdoor W.B.	-22.0~60.0°F WB (-30.0~15.5°CWB)	
Indoor unit connectable		50%~150% of outdoor unit capacity	
Sound power level (measured in anechoic room) *3 dB <A>		M04~M96/49 85.5 / 87.0	
Refrigerant piping diameter	Liquid pipe in. (mm)	7/8 Braze (1-1/8 Braze in pipe length over 213ft) (22.2 Braze (28.28 Braze in pipe length over 65m))	
	Gas pipe in. (mm)	1-3/8 Braze (34.93 Braze)	

Set Model		PURY-HM120YXU-A	PURY-HM120YXU-A
Model			
Minimum Circuit Ampacity		A 31	A 31
Maximum Overcurrent Protection		A 50	A 50
FAN *5	Type x Quantity	Propeller fan x 2	Propeller fan x 2
	Airflow rate	cfm 9,181	cfm 9,181
		m³/min 260	m³/min 260
		L/s 4,333	L/s 4,333
	Control, Driving mechanism	Inverter-control , Brushless DC motor	Inverter-control , Brushless DC motor
Compressor	Motor output kW	0.46	0.46
	External static press.	0 in WG (0Pa)	0 in WG (0Pa)
	Type x Quantity	Inverter scroll hermetic compressor ×1	Inverter scroll hermetic compressor ×1
	Starting method	Inverter	Inverter
	Motor output kW	7.2	7.2
External finish	Case heater kW	0.048	0.048
	Lubricant	MEL46EH	MEL46EH
		Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet <Surface treatment : polyester resin Color:MUNSELL 5Y 8/1>
External dimension H x W x D	in.	70-13/16 x 47-9/16 x 29-3/16	70-13/16 x 47-9/16 x 29-3/16
	mm	1,798 x 1,207 x 740	1,798 x 1,207 x 740
Protection devices	High pressure protection	High pressure switch , Pressure sensor at 4.15MPa (601Psi)	High pressure switch , Pressure sensor at 4.15MPa (601Psi)
	Inverter circuit (COMP/FAN)	Over-current protection	Over-current protection
	Compressor	-	-
	Fan motor	-	-
Refrigerant	Type x original charge	R32 x 13lbs 15oz (6.3kg)	R32 x 13lbs 15oz (6.3kg)
	Control	Indoor LEV and BC controller	
Net weight lbs (kg)		739 (335)	739 (335)
Heat exchanger		Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes	Corrugated fin & Zinc-Sprayed Aluminum Multi-Port Extruded tubes
HIC circuit (HIC: Heat Inter-Changer)		-	-
Pipe between unit and distributor	Liquid pipe in. (mm)	3/4 (19.05) Braze	3/4 (19.05) Braze
	Gas pipe in. (mm)	1-1/8 (28.58) Braze	1-1/8 (28.58) Braze
Defrosting method		Reverse defrost , Liquid backless defrost	
Optional parts	Twinning kit	CMY-R200NCBK	
	Joint	CMY-Y102SS-G2 , CMY-Y102LS-G2	
	Fin guard	PAC-FG05B-E , PAC-FG03S-E	
	Main BC controller	CMB-M104/106/108/1012NU-MA1-SV	
	Sub BC controller	CMB-M104/108NU-MB1-SV	
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80 °F DB / 67 °F WB. (26.7 °C DB / 19.4 °C WB.), Outdoor: 95 °F DB. (35 °C DB.)
 - Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70 °F DB. (21.1 °C DB.), Outdoor: 47 °F DB / 43 °F WB. (8.3 °C DB. / 6.1 °C WB.)
 - Cooling mode / Heating mode
 - 10 °C DB. (14 °F DB.) / -11 °C WB. (12.2 °F WB.) to 21 °C DB. (69.8 °F DB.) / 15.5 °C WB. (59 °F WB.) with cooling/heating mixed operation.
 - External static pressure option is available (0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa).
Consult your dealer about the specification when setting External static pressure option.(Cooling and heating in models HM96 to HM120, and HM192 to HM240 is only available for 0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa.)
- Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

S-Series

Heating or Cooling Heat pump

- Optional parts P.78
- Specifications Standard **PUMY-L NKMU/TBMU** P.79 - 80
- H2i **PUMY-HL NKMU** P.81



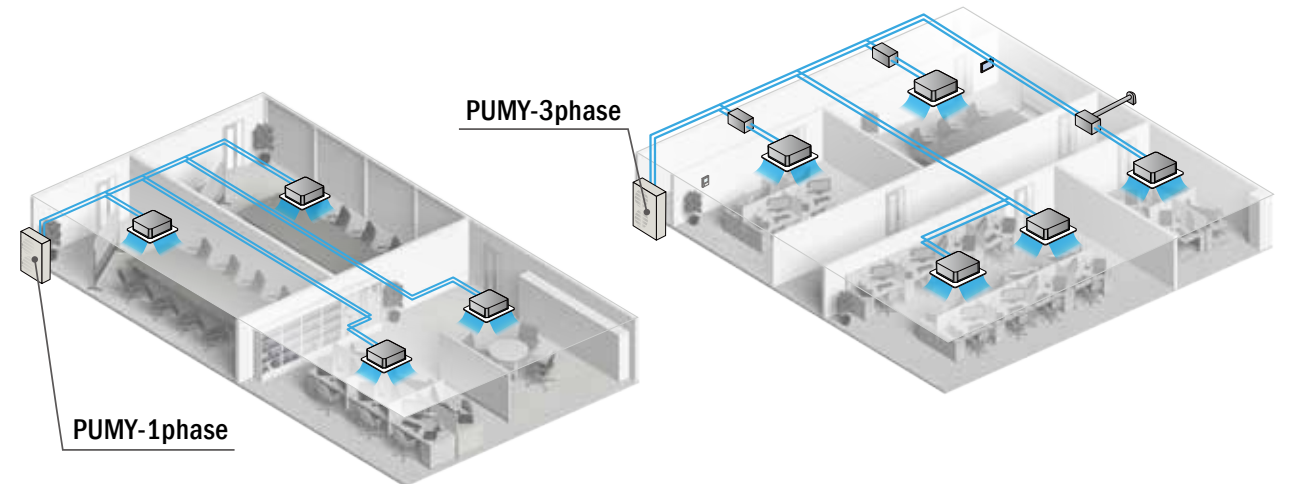
Heatin/Cooling changeover system with horizontal airflow for small offices and stores

The CITY MULTI S-Series (for small applications) makes use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilizes R454B refrigerant and an inverter-driven compressor for effective energy use.

With a wide lineup of indoor units connected to a flexible piping system, the CITY MULTI Series can be configured to suit diverse applications. Thanks to the individual operation of up to 12 units* and a group change function, the CITY MULTI S-Series can flexibly accommodate layout changes in stores and offices.

*Except for L36/HL36 models

- Small offices



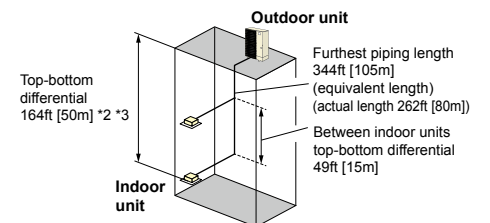
- System Pipe Lengths

[HL36/42/48/60NKMU, L36/48/60NKMU, L72/96/120TBMU]

Refrigerant Piping Length	Maximum feet [Meters]	
Total length	L36/48/60NKMU	787 [240]
	HL36/42/48/60NKMU	492 [150]
	L72/96/120TBMU	1017 [310]
Maximum allowable length (Actual length)	L36/48/60NKMU	262 [80]
	HL36/42/48/60NKMU	262 [80]
	L72/96/120TBMU	426 [130]
Maximum allowable length (Equivalent length)	L36/48/60NKMU	344 [105]
	HL36/42/48/60NKMU	344 [105]
	L72/96/120TBMU	508 [155]
Farthest indoor from first branch	L36/48/60NKMU	98 [30]
	HL36/42/48/60NKMU	98 [30]
	L72/96/120TBMU	164 [50]

Vertical differentials between units	Maximum feet [Meters]
Indoor/outdoor (outdoor higher).....	164 [50]
Indoor/outdoor (outdoor lower).....	131 [40] *1
Indoor/indoor.....	49 [15]

The figure below shows the specifications for L36/48/60NKMU.
For specifications of other models, please refer to "System Pipe Lengths."



*1 Applicable to L36/48/60NKMU and HL36/42/48/60NKMU only. When PKFY-L04/06/08/12NLMU is included, the piping length must be within 98 ft [30 m].

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

*3 When the outdoor unit is installed over the indoor unit, top-bottom differential is 164ft [50m].

Optional parts

• For S-Series

Description	Model	Remarks
Joint	CMY-Y62-G(A)-E	For PUMY-HL NKMU, PUMY-L NKMU, PUMY-L TBMU
Header	CMY-Y64-G-E	For PUMY-HL NKMU, PUMY-L NKMU, PUMY-L TBMU
	CMY-Y68-G-E	For PUMY-HL NKMU, PUMY-L NKMU, PUMY-L TBMU
Shut off valve kit	CMR-M100KT1-NA	

S-Series

Standard

R454B

PUMY-L NKMU



Outdoor model			PUMY-L36NKMU			PUMY-L48NKMU			PUMY-L60NKMU		
Indoor model			Non-Ducted	Mix	Ducted	Non-Ducted	Mix	Ducted	Non-Ducted	Mix	Ducted
Cooling	Capacity Rated*1	Btu/h	36,000	36,000	36,000	48,000	48,000	48,000	60,000	60,000	60,000
	Rated power input	W	2,555	2,990	3,600	4,000	4,710	5,715	5,000	5,610	6,385
	Current input (208/230 V)	A	12.5/11.3	14.6/13.2	17.6/15.9	19.5/17.6	23.0/20.8	27.9/25.2	24.5/22.2	27.5/24.9	31.3/28.3
	EER2	Btu/h/W	14.10	12.05	10.00	12.00	10.20	8.40	12.00	10.70	9.40
	SEER2	-	23.00	20.60	18.20	23.00	20.00	17.00	20.00	18.20	16.40
Heating	Capacity Rated 47°F *2	Btu/h	41,000	41,000	41,000	50,000	50,000	50,000	66,000	66,000	66,000
	Capacity Max. 17°F *3	Btu/h	36,000	36,000	36,000	43,000	43,000	43,000	65,000	65,000	65,000
	Capacity Max. 5°F	Btu/h	29,000	29,000	29,000	35,400	35,400	35,400	46,500	46,500	46,500
	Rated power input 47°F *2	W	3,005	3,395	3,880	3,665	4,140	4,730	4,720	5,230	5,865
	Current input (208/230 V)	A	14.7/13.3	16.6/15.0	18.9/17.1	17.9/16.2	20.2/18.3	23.1/20.9	23.1/20.9	25.6/23.2	28.7/26.0
	COP 47°F *2	W/W	4.00	3.54	3.10	4.00	3.54	3.10	4.10	3.70	3.30
	HSPFIV / V	-	11.00/8.75	10.50/8.75	10.00/8.75	10.40/8.35	9.95/8.00	9.50/7.70	10.50/8.65	10.00/8.05	9.50/7.45
Power source			1-phase 208/230 V, 60 Hz								
Breaker size		(ODU only/ODU+IDU) A	30/40						40/50		
Minimum circuit ampacity		(ODU only/ODU+IDU) A	36/42						45/55		
Indoor unit connectable	Total capacity		50 to 130% of outdoor unit capacity								
	Model/Quantity *4	CITY MULTI	04 - 36/11			04 - 54/12			04 - 72 /12		
	Branch box		06 - 36/4			06 - 36/8			06 - 36 / 8		
Sound pressure level (SPL) (measured in anechoic room)		dB <A>	49/53			51/54			58/59		
Refrigerant piping diameter	Liquid pipe	in (mm)	3/8 (ø9.52)						3/4 (ø19.05)		
	Gas pipe	in (mm)	5/8 (ø15.88)						3/4 (ø19.05)		
Fan *5	Type × Quantity		Propeller fan × 2								
	Airflow rate	m³/min	112						141		
		L/s	1,867						2,350		
		cfm	3,955						4,975		
	Control, Driving mechanism		DC control								
	Motor output	kW	0.070 × 2						0.200 × 2		
	External static pressure		0								
Compressor	Type × Quantity		Twin rotary hermetic compressor x 1								
	Manufacturer		Mitsubishi Electric Corporation								
	Starting method		Inverter								
	Motor output	kW	2.7			3.4			4.1		
	Case heater		0								
	Lubricant		RM68EH 79 oz. (2.3L)								
External finish			Galvanized Steel Sheet <Munsell 3Y 7.8/ 1.1>								
External dimension H × W × D		mm	1,338 × 1,050 × 330 (+25)								
		in	52-11/16 × 41-11/32 × 13 (+1)								
Protection devices	High pressure protection		High pressure switch								
	Inverter circuit (COMP./FAN)		Overcurrent detection, Overheat detection (Heat sink thermistor)								
	Compressor		Compressor thermo, Overcurrent detection, Thermal protector								
	Fan motor		Overheating/Voltage protection								
Refrigerant	Type × original charge		R454B 2 lbs. 11 oz. (1.2 kg)						R454B 6 lbs. 10 oz. (3.0kg)		
	Control		Linear Expansion Valve								
Net weight		lb (kg)	250 (113)						278 (126)		
Heat exchanger			Cross fin and tube								
HIC circuit (HIC: Heat Inter-Changer)			HIC circuit								
Defrosting method			Reversed refrigerant circuit								
Guaranteed operation range	Cooling	D.B.	D.B 23 to 115°F [D.B.-5 to 46°C]*5, *6, *7, *8								
	Heating	W.B.	W.B. -13 to 59°F [W.B. -25 to 15°C]								

Remarks

*1. Rating cooling conditions:
Indoor: 80°F D.B. /67 °F W.B. (26.7°C D.B./19.4°C W.B.)
Outdoor: 95°F D.B. (35.0°C D.B.)

*2. Rating heating conditions:
Indoor: 70°F D.B. (21.1°C D.B.)
Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)

*3. Heating conditions:
Indoor: 70°F D.B. (21.1°C D.B.)
Outdoor: 17°F D.B./15°F W.B. (-8.3°C D.B./-9.4°C W.B.)

*4. It cannot be connected to mixed CITY MULTI indoor unit and branch box indoor unit.

*5. 5 to 115°F D.B. (-15 to 46°C D.B.), when an optional Air Outlet Guide is installed. However, this condition does not apply to the indoor units listed in *6.

*6. 50 to 115°F D.B. (10 to 46°C D.B.), when connecting PKFY-L04/06/08/12NLMU type indoor unit.

*7. When the temperature is below 50°F D.B. (10 °C D.B.), noise could potentially occur.

*8. When PCFY is operated in cooling at an outside temperature of 68°F D.B. (20 °C D.B.) or lower, refrigerant noise could potentially occur.

Notes:

- Due to continuing improvement, above specifications are subject to change without notice.
- See the following for unit conversion: kcal/h = kW × 860, Btu/h = kW × 3,412, cfm = m³/min × 35.31, lb = kg × 0.4536
- Above specification data is subject to rounding variation.
- Refer to the indoor unit's service manual for the indoor units specifications.
- Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

S-Series

Standard

R454B

PUMY-L TBMU



Outdoor model			PUMY-L72TBMU		PUMY-L96TBMU		PUMY-L120TBMU					
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted			
Cooling capacity (Nominal)		*1	BTU/h	72,000		96,000		120,000				
			kW	21.1		28.1		35.2				
			Power input	6.32		8.89		10.7				
			Current input	A		18.5-16.7		26.0-23.6				
								31.4-28.3				
(Rated)			BTU/h	69,000		92,000		114,000				
			kW	20.2		27		33.4				
			Power input	kW		5.44		5.52				
								7.55				
			Current input	A		15.9-14.4		16.2-14.6				
Heating capacity (Nominal)		*2	BTU/h	80,000		108,000		129,000				
			kW	23.4		31.7		37.8				
			Power input	kW		5.69		8.28				
								9.91				
			Current input	A		16.7-15.1		24.2-21.9				
(Rated)			BTU/h	76,000		103,000		123,000				
			kW	22.6		30.2		36.0				
			Power input	kW		5.09		5.31				
								7.46				
			Current input	A		14.9-13.5		15.5-14.1				
Power source			3-phase 3-wire 208-230V 60Hz									
Breaker size			(ODU only/ODU+IDU)	A	40/60				50/70			
Minimum circuit ampacity			(ODU only/ODU+IDU)	A	32/50				46/64			
Maximum overcurrent protection			(ODU only/ODU+IDU)	A	57/75				82/100			
Indoor unit connectable			50 to 130% of outdoor unit cooling rated capacity									
Total capacity			Model/ Quantity	*3	CITY MULTI	04 - 72/23		04 - 96/30		04 - 96/30		
Branch box						06 - 36/12		06 - 36/12		06 - 36/12		
Sound pressure level (SPL) (measured in anechoic room)			dB <A>		53/54		58/59		61/62			
Refrigerant piping diameter			Liquid pipe		in (mm)		3/8 (9.52) *4				1/2 (12.7)	
			Gas pipe		in (mm)		7/8 (22.2)				1-1/8 (28.58)	
Fan			*5		Type × Quantity		Propeller fan × 2					
			Airflow rate		m³/min		149		179		208	
					L/s		2,480		2,980		3,470	
					cfm		5,260		6,320		7,345	
			Control, Driving mechanism		DC control							
			Motor output		kW		0.285 + 0.285					
			External static pressure		0 in.WG (0 Pa) / 0.12 in.WG (30 Pa)							
Compressor			Type × Quantity		Scroll hermetic compressor× 1							
			Manufacturer		Siam Compressor Industry Co., Ltd.							
			Starting method		Inverter							
			Motor output		kW		4.0		5.3		6.8	
			Case heater		kW		0					
			Lubricant		RM68EH 101oz. (3.0L)							
External finish			Galvanized Steel Sheet <Munsell 3Y 7.8/ 1.1>									
External dimension H × W × D			mm		1,662 × 1,050 × 460 (+45)							
			in		65-7/16 × 41-11/32 × 18-7/64 (+ 1-49/64)							
Protection devices			High pressure protection		High pressure switch							
			Inverter circuit (COMP./FAN)		Overcurrent detection, Overheat detection (Heat sink thermistor)							
			Compressor		Compressor thermistor, Overcurrent detection							
			Fan motor		Overheating/Voltage protection							
Refrigerant			Type × original charge		R454B 15 lbs. 3 oz. (6.9 kg)							
			Control		Linear Expansion Valve							
Net weight			lb (kg)		421 (191)							
Heat exchanger			Cross fin and copper tube									
HIC circuit (HIC: Heat Inter-Changer)			Double pipe heat exchanger									
Defrosting method			Reversed refrigerant circuit									
Guaranteed operation range			Cooling		D.B.		-5 to 46°C [23 to 115°F]*6, *7, *8, *9					
			Heating		W.B.		-25 to 15°C [-13 to 59°F]					

Remarks

- Nominal cooling conditions:
Indoor: 80°F D.B. /67 °F W.B. (26.7°C D.B./19.4°C W.B.)
Outdoor: 95°F D.B. (35.0°C D.B.)
- Nominal heating conditions:
Indoor: 70°F D.B. (21.1°C D.B.)
Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)
- It cannot be connected to mixed CITY MULTI indoor unit and branch box indoor unit.
- Liquid pipe diameter: 12.7mm, when further piping length is longer than 90m, and when PEFY-L/M72 or M96 is connected.
- It is possible to set the external static pressure to 30 Pa by Dip Switch.
- 5 to 115°F D.B. (-15 to 46°C D.B.), when an optional Air Outlet Guide is installed. However, this condition does not apply to the indoor units listed in *7.
- 50 to 115°F D.B. (10 to 46°C D.B.), when connecting PKFY-L/M04/06/08/12NLMU, PLFY-L/M05/08/12/15/18NFMU, PEFY-L/M06NMSU and PEFY-L/ M06NMAU type indoor unit.
- When the temperature is below 50°F D.B. (10 °C D.B.) with branch box system, noise could potentially occur.
- When PCFY is operated in cooling at an outside temperature of 68°F D.B. (20 °C D.B.) or lower, refrigerant noise could potentially occur.

Notes:

- Nominal conditions *1, *2 are subject to AHRI 1230.
- Due to continuing improvement, above specifications are subject to change without notice.
- See the following for unit conversion: kcal/h = kW × 860, Btu/h = kW × 3,412, cfm = m³/min × 35.31, lb = kg × 0.4536
Above specification data is subject to rounding variation.
- Refer to the indoor unit's service manual for the indoor units specifications.
- Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

S-Series

H2i

R454B

PUMY-HL NKMU



Outdoor model			PUMY-HL36NKMU			PUMY-HL42NKMU			PUMY-HL48NKMU			PUMY-HL60NKMU				
Indoor model			Non-Ducted	Mix	Ducted	Non-Ducted	Mix	Ducted	Non-Ducted	Mix	Ducted	Non-Ducted	Mix	Ducted		
Cooling	Capacity Rated*1	Btu/h	36,000	36,000	36,000	42,000	42,000	42,000	48,000	48,000	48,000	60,000	60,000	60,000		
	Rated power input	W	2,485	2,835	3,305	3,135	3,530	4,040	3,665	4,160	4,800	5,000	5,610	6,385		
	Current input (208/230 V)	A	12.2/11.0	13.9/12.5	16.2/14.6	15.3/13.9	17.3/15.6	19.8/17.9	17.9/16.2	20.3/18.4	23.5/21.2	24.5/22.2	27.5/24.9	31.3/28.3		
	EER2	Btu/h/W	14.50	12.70	10.90	13.40	11.90	10.40	13.10	11.55	10.00	12.00	10.70	9.40		
	SEER2	-	23.00	20.35	17.70	21.50	19.50	17.50	23.00	20.50	18.00	20.00	18.20	16.40		
Heating	Capacity Rated 47°F *2	Btu/h	42,000	42,000	42,000	48,000	48,000	48,000	54,000	54,000	54,000	62,000	61,000	60,000		
	Capacity Max. 17°F *3	Btu/h	42,000	42,000	42,000	48,000	48,000	48,000	54,000	54,000	54,000	72,500	72,500	72,500		
	Capacity Max. 5°F	Btu/h	42,000	42,000	42,000	48,000	48,000	48,000	54,000	54,000	54,000	62,000	61,000	60,000		
	Capacity Max. -13°F	Btu/h	42,000	42,000	42,000	48,000	48,000	48,000	54,000	54,000	54,000	62,000	61,000	60,000		
	Rated power input 47°F *2	W	3,080	3,330	3,620	3,435	3,975	4,690	3,960	4,400	4,950	4,435	4,835	5,330		
	Current input (208/230 V)	A	15.1/13.6	16.3/14.7	17.7/16.0	16.8/15.2	19.4/17.6	22.9/20.7	19.4/17.5	21.5/19.5	24.2/21.9	21.7/19.7	23.7/21.4	26.1/23.6		
	COP 47°F *2	W/W	4.00	3.70	3.40	4.10	3.54	3.00	4.00	3.60	3.20	4.10	3.70	3.30		
	HSPFIV / V	-	12.00/10.65	11.25/10.20	10.50/9.80	11.10/9.80	10.55/9.30	10.00/8.80	11.50/9.80	10.75/9.05	10.00/8.30	10.90/9.00	10.45/8.75	10.00/8.50		
Power source			1-phase 208/230 V, 60 Hz													
Breaker size		(ODU only/ODU+IDU) A	40/45						45/55							
Minimum circuit ampacity		(ODU only/ODU+IDU) A	45/51						45/55							
Indoor unit connectable	Total capacity		50 to 130% of outdoor unit capacity													
	Model/ Quantity *4	CITY MULTI	04 - 36/11			04 - 54/12			04 - 54/12			04 - 72/12				
	Branch box		06 - 36/4			06 - 36/5			06 - 36/8			06 - 36/8				
Sound pressure level (SPL) (measured in anechoic room)			49/53			50/54			51/54			58/59				
Refrigerant piping diameter	Liquid pipe	in (mm)	3/8 (ø9.52)						3/4 (ø19.05)							
	Gas pipe	in (mm)	5/8 (ø15.88)						3/4 (ø19.05)							
Fan *5	Type × Quantity		Propeller fan × 2													
	Airflow rate	m³/min	108						141							
		L/s	1,800						2350							
		cfm	3,810						4975							
	Control, Driving mechanism		DC control													
	Motor output		kW		0.200 × 2											
	External static pressure		0													
Compressor	Type × Quantity		Twin rotary hermetic compressor × 1													
	Manufacturer		Mitsubishi Electric Corporation													
	Starting method		Inverter													
	Motor output	kW	2.7			3.0			3.2			4.1				
	Case heater	kW	0													
	Lubricant		RM68EH 79 oz. (2.3L)													
External finish			Galvanized Steel Sheet <Munsell 3Y 7.8/ 1.1>													
External dimension H × W × D		mm	1,338 × 1,050 × 330 (+25)													
		in	52-11/16 × 41-11/32 × 13 (+1)													
Protection devices	High pressure protection		High pressure switch													
	Inverter circuit (COMP/FAN)		Overcurrent detection, Overheat detection (Heat sink thermistor)													
	Compressor		Compressor thermo, Overcurrent detection, Thermal protector													
	Fan motor		Overheating/Voltage protection													
Refrigerant	Type × original charge		R454B 6 lbs. 10 oz. (3.0kg)													
	Control		Linear Expansion Valve													
Net weight		lb (kg)	283 (128)													
Heat exchanger			Cross fin and tube													
HIC circuit (HIC: Heat Inter-Changer)			HIC circuit													
Defrosting method			Reversed refrigerant circuit													
Guaranteed operation range	Cooling	D.B.	D.B 23 to 115°F [D.B.-5 to 46°C]*5, *6, *7, *8													
	Heating	W.B.	W.B. -13 to 59°F [W.B. -25 to 15°C]													

WR2-Series

Simultaneous Heating and Cooling Heat recovery

- Optional parts P.83
- Specifications 208-230V, 460V PQRY-M T(S)XU-A/Y(S)XU-A P.84 - P.95
- BC controllers P.100 - P.105

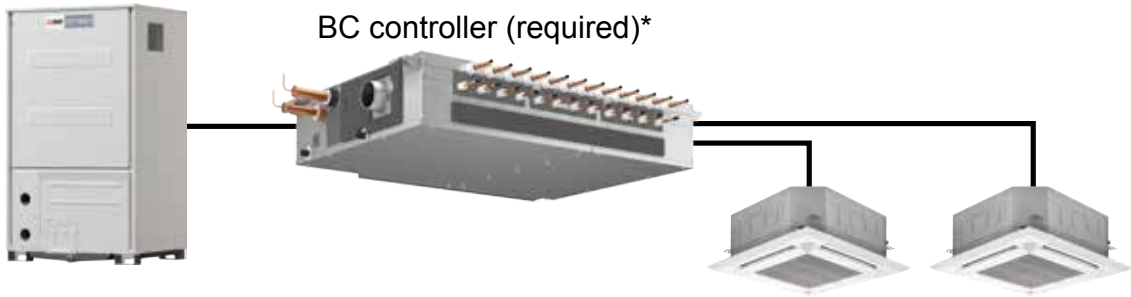


Advanced water heat source unit with the benefits of the R2-Series

The CITY MULTI WR2-Series provides all of the advantages of the R2-Series with the added benefits of a water heat source system, making it suitable for a wider range of applications in high-rise buildings, cold climates, coastal areas, etc.

Not only does it recover heat from the indoor units along the same 2-pipe refrigerant circuit, it also recovers heat via the water circuit between heat source units, making it a very economical system.

• System example



*WR2-Series systems require the use of BC controllers.

Enhanced Safety with New Built-in Sensor & Fan

Our latest models feature integrated refrigerant sensor and fan. When a leak is detected, the outdoor unit sends a signal to initiate the built-in fan, ensuring a safer environment through active air circulation.

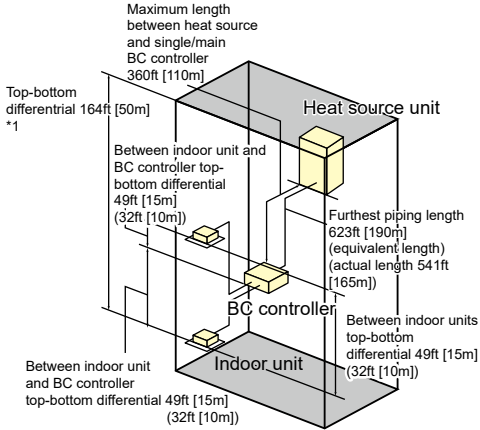


• System pipe lengths

[M72-M336 (WR2-Series)]

Refrigerant Piping Lengths	Maximum feet (Meters)
Total length	1,804-2,460 [550-750]
Maximum allowable length	541 (623 equivalent) [165 (190)]
Maximum length between heat source and single/main BC controller	360 [110]*2
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller.	
Maximum length between single/main BC controller and indoor	131 [40]*3
Vertical differentials between units	Maximum feet (Meters)
Indoor/ heat source (heat source higher)	164 [50]
Indoor/ heat source (heat source lower)	131 [40]
Indoor/BC controller (single/main)	49 [15]*4
Indoor/indoor	98 [30]*5
Main BC Controller/Sub BC Controller	49 [15]*6

*1 When the heat source unit is installed below the indoor unit, top-bottom differential is 131ft [40m].
*2 Details refer to the DATA BOOK.
*3 Farthest Indoor from BC controller can exceed 131ft [40m] till 197ft [60m] if no Indoor sized M72, M96 connected. Details refer to the DATA BOOK.
*4 Height between Indoor sized M72, M96 and BC must be less than 32ft [10m], if any.
*5 Height between Indoor sized M72, M96 and IU must be less than 65ft [20m], if any.
*6 Height between BC (Main or Sub) and BC (Sub) must be less than 32ft [10m] if two BC(sub) are installed or IU size is M72, M96.



Optional parts

• For WR2-Series

Description			Model	Remarks
Twinning kit			CMY-R100NCBK	M144
			CMY-R200NCBK	M168 to M240
			CMY-R300NCBK	M288 to M336
For BC controller	Branch pipe (Joint)	Between BC and indoor units	CMY-Y102SS-G2	Total down-stream indoor unit capacity: -M72
			CMY-Y102LS-G2	Total down-stream indoor unit capacity: M73-M96
	Branch joint	Between Main BC and Sub BC	CMY-R201S-G	Total down-stream indoor unit capacity: -M126
			CMY-R202S-G	Total down-stream indoor unit capacity: M127-M216
			CMY-R203S-G	Total down-stream indoor unit capacity: M217-M234
			CMY-R204S-G	Total down-stream indoor unit capacity: M235-
	Reducer	Between outdoor units and BC	CMY-R304S-G1	For MA type (Outdoor unit capacity: M72-M336)
		Between Main BC and Sub BC	CMY-R303S-G1	For MA type (When using the Sub BC controller)
			CMY-R306S-G	For MB type
	Cover plug		PAC-KA01PS	For three unused ports, connected blazing
	Joint pipe kit		CMY-R170M-E	Joint for connecting two nozzles

WR-Series **R32**

PQRY-M TXU-A(208-230V)



Heat Source Model			PQRY-M72TXU-A			PQRY-M96TXU-A			PQRY-M120TXU-A				
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	Non-Ducted		Ducted		
Power source			3-phase 3-wire 208-230V ±10% 60Hz			3-phase 3-wire 208-230V ±10% 60Hz			3-phase 3-wire 208-230V ±10% 60Hz				
Cooling capacity (Nominal)	*1	BTU / h	72,000			96,000			120,000				
		kW	21.1			28.1			35.2				
	(208-230)	Power input	kW			3.43			5.18				
		Current input	A			10.5-9.5			15.9-14.4				
	(Rated)	BTU / h	69,000			92,000			115,000				
		kW	20.2			27.0			33.7				
	(208-230)	Power input	kW			3.48			5.19				
		Current input	A			10.7-9.7			11.2-10.1				
	Temp. range of cooling	Indoor	W.B.			59~75°F (15~24°C)			59~75°F (15~24°C)				
		Inlet water	°F			50~113°F (10~45°C)			50~113°F (10~45°C)				
Heating capacity (Nominal)	*2	BTU / h	80,000			108,000			135,000				
		kW	23.4			31.7			39.6				
	(208-230)	Power input	kW			3.38			4.81				
		Current input	A			10.4-9.4			14.8-13.4				
	(Rated)	BTU / h	76,000			103,000			129,000				
		kW	22.3			30.2			37.8				
	(208-230)	Power input	kW			3.01			3.12				
		Current input	A			9.2-8.3			9.6-8.7				
	Temp. range of heating	Indoor	D.B.			59~81°F (15~27°C)			59~81°F (15~27°C)				
		Inlet water	°F			50~113°F (10~45°C)			50~113°F (10~45°C)				
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		M04~M96/14			M04~M96/19			M04~M96/24			
Sound pressure level (measured in anechoic room)		*3	dB <A>		60.5			65.0			71.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed			3/4 (19.05) Brazed			3/4 (19.05) Brazed				
	Gas pipe	in. (mm)	3/4 (19.05) Brazed			7/8 (22.2) Brazed			7/8 (22.2) Brazed				
Minimum Circuit Ampacity			A			16-14			24-22				
Maximum Overcurrent Protection			A			25-25			40-35				
Inlet water	Water flow rate	G / h	1,440			1,522			1,522				
		G / min	24			25.4			25.4				
		m ³ / h	5.45			5.76			5.76				
		L / min	91			96			96				
		cfm	3.2			3.4			3.4				
	Pressure drop	psi	3.48			3.48			3.48				
		kPa	24			24			24				
	Operating volume range	G / h	793 ~ 1,902			793 ~ 1,902			793 ~ 1,902				
		G / min	13.2 ~ 31.7			13.2 ~ 31.7			13.2 ~ 31.7				
			m ³ / h	3.0 ~ 7.2			3.0 ~ 7.2			3.0 ~ 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			Inverter scroll hermetic compressor x 1			Inverter scroll hermetic compressor x 1				
	Starting method		Inverter			Inverter			Inverter				
	Motor output		kW			3.0			4.5				
	Case heater		kW			0.045			0.045				
External finish			Powder coating <MUNSELL 5Y 8/1>			Powder coating <MUNSELL 5Y 8/1>			Powder coating <MUNSELL 5Y 8/1>				
External dimension H x W x D		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				
		mm	1,450 x 880 x 550			1,450 x 880 x 550			1,450 x 880 x 550				
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)			High pressure sensor, High pressure switch at 4.15MPa (601 psi)			High pressure sensor, High pressure switch at 4.15MPa (601 psi)				
	Inverter circuit		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			R32 x 9 lbs + 15 oz (4.5 kg)			R32 x 9 lbs + 15 oz (4.5 kg)				
Net weight		lbs (kg)	492 (223)			490 (222)			490 (222)				
Heat exchanger			plate type			plate type			plate type				
	Water volume in plate	G	1.22			1.22			1.22				
		l	4.6			4.6			4.6				
	Water pressure	psi	290			290			290				
	Max.	MPa	2.0			2.0			2.0				
Optional parts			joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV			joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV			joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV				

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)

WR-Series **R32**

PQRY-M TXU-A(208-230V)



Heat Source Model			PQRY-M144TXU-A		PQRY-M168TXU-A		PQRY-M192TXU-A		
Indoor Model			Non-Ducted		Ducted		Non-Ducted		
Power source			3-phase 3-wire 208-230V ±10% 60Hz		3-phase 3-wire 208-230V ±10% 60Hz		3-phase 3-wire 208-230V ±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU / h	144,000		168,000		192,000		
		kW	42.2		49.2		56.3		
	(208-230)	Power input	kW		9.30		11.87		
		Current input	A		28.6-25.9		36.6-33.1		
	(Rated)	BTU / h	138,000		160,000		184,000		
		kW	40.4		46.9		53.9		
	(208-230)	Power input	kW		9.15		11.58		
		Current input	A		28.2-25.5		35.7-32.2		
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)	
		Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	160,000		188,000		215,000		
		kW	46.9		55.1		63.0		
	(208-230)	Power input	kW		7.44		9.85		
		Current input	A		22.9-20.7		30.3-27.4		
	(Rated)	BTU / h	152,000		178,000		204,000		
		kW	44.5		52.2		59.8		
	(208-230)	Power input	kW		6.38		8.38		
		Current input	A		19.6-17.7		25.8-23.3		
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)	
		Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
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		M04~M96/29		M04~M96/34		M04~M96/39		
Sound pressure level (measured in anechoic room)			*3	dB <A>	68.0		72.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity			A	42-38	48-48		52-52		
Maximum Overcurrent Protection			A	70-60	80-80		90-90		
Inlet water	Water flow rate	G / h	1,902		1,902		1,902		
		G / min	31.7		31.7		31.7		
		m³ / h	7.20		7.20		7.20		
		L / min	120		120		120		
		cfm	4.2		4.2		4.2		
	Pressure drop	psi	6.38		6.38		6.38		
		kPa	44		44		44		
	Operating volume range	G / h	1,189 ~ 3,054		1,189 ~ 3,054		1,189 ~ 3,054		
		G / min	19.8 ~ 50.9		19.8 ~ 50.9		19.8 ~ 50.9		
		m³ / h	4.5 ~ 11.6		4.5 ~ 11.6		4.5 ~ 11.6		
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1			
	Starting method	Inverter		Inverter		Inverter			
	Motor output	kW	8.0		10.3		12.7		
	Case heater	kW	0.045		0.045		0.045		
External finish			Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>		
External dimension H x W x D		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		
		mm	1,450 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)			
	Inverter circuit	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	R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		
Net weight		lbs (kg)	499 (226)		499 (226)		497 (225)		
Heat exchanger			plate type		plate type		plate type		
			Water volume in plate	G	1.22		1.22		
			Water pressure	psi	290		290		
			Max.	MPa	2.0		2.0		
Optional parts			joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1		joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1		joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1		
			Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV		Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV		Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV		
			Sub BC controller: CMB-M104,108NU-MB1-SV		Sub BC controller: CMB-M104,108NU-MB1-SV		Sub BC controller: CMB-M104,108NU-MB1-SV		

WR-Series **R32**

PQRY-M TXU-A(208-230V)



Heat Source Model			PQRY-M216TXU-A		PQRY-M240TXU-A	
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 208-230V ±10% 60Hz		3-phase 3-wire 208-230V ±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU / h	216,000		240,000	
		kW	63.3		70.3	
	(208-230)	Power input	15.23		18.27	
		Current input	A		56.3-50.9	
	(Rated)	BTU / h	206,000		230,000	
		kW	60.4		67.4	
	(208-230)	Power input	17.55		20.20	
		Current input	A		54.1-48.9	
	(208-230)	BTU / h	16.74		62.2-56.3	
		Current input	A		51.6-46.6	
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	243,000		270,000	
		kW	71.2		79.1	
	(208-230)	Power input	12.66		15.24	
		Current input	A		39.0-35.3	
	(Rated)	BTU / h	232,000		258,000	
		kW	68.0		75.6	
	(208-230)	Power input	11.61		13.54	
		Current input	A		35.8-32.3	
	(208-230)	BTU / h	12.43		41.7-37.7	
		Current input	A		38.3-34.6	
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)	
Indoor unit connectable	Total capacity		50%~150% of heat source unit capacity		50%~150% of heat source unit capacity	
	Model / Quantity		M04~M96/44		M04~M96/49	
Sound pressure level (measured in anechoic room)		*3 dB <A>	72.5		74.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-3/8 (34.93) Brazed	
Minimum Circuit Ampacity		A	61-61		61-61	
Maximum Overcurrent Protection		A	100-100		100-100	
Inlet water	Water flow rate	G / h	3,044		3,044	
		G / min	50.7		50.7	
		m³ / h	11.52		11.52	
		L / min	192		192	
		cfm	6.8		6.8	
	Pressure drop	psi	6.53		6.53	
		kPa	45		45	
	Operating volume range	G / h	1,585 ~ 3,804		1,585 ~ 3,804	
		G / min	26.4 ~ 63.4		26.4 ~ 63.4	
	m³ / h		6.0 ~ 14.4		6.0 ~ 14.4	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Starting method		Inverter		Inverter	
	Motor output		13.2		15.8	
	Case heater		0.048		0.048	
External finish			Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R32 x 16 lbs + 9 oz (7.5 kg)		R32 x 16 lbs + 9 oz (7.5 kg)	
Net weight		lbs (kg)	563 (255)		563 (255)	
Heat exchanger	plate type		plate type		plate type	
	Water volume in plate	G	2.43		2.43	
		l	9.2		9.2	
	Water pressure	psi	290		290	
	Max.	MPa	2.0		2.0	
Optional parts			joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV		joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV	

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)

WR-Series **R32**

PQRY-M TSXU-A(208-230V)



Heat Source Model			PQRY-M144TSXU-A		PQRY-M168TSXU-A		PQRY-M192TSXU-A	
Indoor Model			Non-Ducted		Ducted		Non-Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		3-phase 3-wire 208-230 V ±10% 60 Hz		3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1	BTU / h	144,000		168,000		192,000	
		kW	42.2		49.2		56.3	
	(208-230)	Power input	7.40		9.28		10.98	
		Current input	A		22.8-20.6		28.6-25.8	
	(Rated)	BTU / h	138,000		160,000		184,000	
		kW	40.4		46.9		53.9	
	(208-230)	Power input	7.19		7.89		8.68	
		Current input	A		22.1-20.0		26.7-24.2	
	(208-230)	BTU / h	24.3-22.0		28.9-26.2		31.8-28.8	
		Current input	A		24.3-22.0		34.3-31.0	
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	160,000		188,000		215,000	
		kW	46.9		55.1		63.0	
	(208-230)	Power input	7.76		8.93		9.91	
		Current input	A		23.9-21.6		27.5-24.9	
	(Rated)	BTU / h	152,000		178,000		204,000	
		kW	44.5		52.2		59.8	
	(208-230)	Power input	6.41		7.30		7.71	
		Current input	A		19.7-17.8		23.7-21.5	
	(208-230)	BTU / h	22.5-20.3		24.5-22.1		27.8-25.2	
		Current input	A		22.5-20.3		26.2-23.7	
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
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		M04~M96/29		M04~M96/34		M04~M96/39	
Sound pressure level (measured in anechoic room)		*3 dB <A>	63.5		66.5		68.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	

Set Model

Model			PQRY-M72TXU-A	PQRY-M72TXU-A	PQRY-M96TXU-A	PQRY-M72TXU-A	PQRY-M96TXU-A	PQRY-M96TXU-A			
Minimum Circuit Ampacity			A	16-14	16-14	24-22	16-14	24-22			
Maximum Overcurrent Protection			A	25-25	25-25	40-35	25-25	40-35			
Inlet water	Water flow rate	G / h	1,522 + 1,522		1,522 + 1,522		1,522 + 1,522				
		G / min	25.4 + 25.4		25.4 + 25.4		25.4 + 25.4				
		m³ / h	5.76 + 5.76		5.76 + 5.76		5.76 + 5.76				
		L / min	96 + 96		96 + 96		96 + 96				
		cfm	3.4 + 3.4		3.4 + 3.4		3.4 + 3.4				
	Pressure drop	psi	3.48	3.48	3.48	3.48	3.48	3.48			
		kPa	24	24	24	24	24	24			
	Operating volume range	G / h	793 + 793 ~ 1,902 + 1,902		793 + 793 ~ 1,902 + 1,902		793 + 793 ~ 1,902 + 1,902				
		G / min	13.2 + 13.2 ~ 31.7 + 31.7		13.2 + 13.2 ~ 31.7 + 31.7		13.2 + 13.2 ~ 31.7 + 31.7				
	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					
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1			Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1				
	Starting method	Inverter			Inverter		Inverter				
	Motor output	kW	3.0	3.0	4.5	3.0	4.5	4.5			
	Case heater	kW	0.045	0.045	0.045	0.045	0.045	0.045			
External finish			Powder coating <MUNSELL 5Y 8/1>			Powder coating <MUNSELL 5Y 8/1>					
External dimension H x W x D			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	57-1/8 x 34-11/16 x 21-11/16			
			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	1,450 x 880 x 550	1,450 x 880 x 550		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)			High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)				
	Inverter circuit	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	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)				
Net weight		lbs (kg)	492 (223)	492 (223)	490 (222)	492 (223)	490 (222)				
Heat exchanger			plate type	plate type	plate type	plate type	plate type				
		Water volume in plate	G	1.22	1.22	1.22	1.22	1.22			
			l	4.6	4.6	4.6	4.6	4.6			
		Water pressure	psi	290	290	290	290	290			
Max.	MPa	2.0	2.0	2.0	2.0	2.0	2.0				
Optional parts			Heat Source Twinning kit: CMY-R100NCBK joint: CMY-Y102SS-G, CMY-Y102LS-G2, CMY-R170M-E, PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303,304S-G1			Heat Source Twinning kit: CMY-R100NCBK joint: CMY-Y102SS-G, CMY-Y102LS-G2, CMY-R170M-E, PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303,304S-G1			Heat Source Twinning kit: CMY-R100NCBK joint: CMY-Y102SS-G, CMY-Y102LS-G2, CMY-R170M-E, PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303,304S-G1		
			Main BC controller: CMB-M104,106,108,1012NU-MA1-SV			Main BC controller: CMB-M104,106,108,1012NU-MA1-SV			Main BC controller: CMB-M104,106,108,1012NU-MA1-SV		
			Sub BC controller: CMB-M104,108NU-MB1-SV			Sub BC controller: CMB-M104,108NU-MB1-SV			Sub BC controller: CMB-M104,108NU-MB1-SV		

WR-Series **R32**

PQRY-M TSXU-A(208-230V)



Heat Source Model			PQRY-M216TSXU-A		PQRY-M240TSXU-A	
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1	BTU / h	216,000		240,000	
		kW	63.3		70.3	
	(208-230)	Power input	12.89		15.19	
		Current input	39.7-35.9		46.8-42.3	
(Rated)	(208-230)	BTU / h	206,000		230,000	
		kW	60.4		67.4	
	(208-230)	Power input	12.84	13.51	15.38	16.27
		Current input	39.6-35.8	41.6-37.6	47.4-42.8	50.1-45.3
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	243,000		270,000	
		kW	71.2		79.1	
	(208-230)	Power input	11.27		12.83	
		Current input	34.7-31.4		39.5-35.7	
(Rated)	(208-230)	BTU / h	232,000		258,000	
		kW	68.0		75.6	
	(208-230)	Power input	10.55	9.98	12.21	11.75
		Current input	32.5-29.4	30.7-27.8	37.6-34.0	36.2-32.7
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)	
Indoor unit connectable	Total capacity		50%~150% of heat source unit capacity		50%~150% of heat source unit capacity	
	Model / Quantity		M04~M96/44		M04~M96/49	
Sound pressure level (measured in anechoic room)	*3	dB <A>	72.0		74.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-3/8 (34.93) Brazed	

Set Model

Model		PQRY-M120TXU-A		PQRY-M96TXU-A		PQRY-M120TXU-A		PQRY-M120TXU-A		
Minimum Circuit Ampacity		A	33-30	24-22		33-30		33-30		
Maximum Overcurrent Protection		A	50-50	40-35		50-50		50-50		
Inlet water	Water flow rate	G / h	1,522 + 1,522			1,522 + 1,522				
		G / min	25.4 + 25.4			25.4 + 25.4				
		m ³ / h	5.76 + 5.76			5.76 + 5.76				
		L / min	96 + 96			96 + 96				
		cfm	3.4 + 3.4			3.4 + 3.4				
	Pressure drop	psi	3.48	3.48		3.48	3.48			
		kPa	24	24		24	24			
	Operating volume range	G / h	793 + 793 ~ 1,902 + 1,902			793 + 793 ~ 1,902 + 1,902				
		G / min	13.2 + 13.2 ~ 31.7 + 31.7			13.2 + 13.2 ~ 31.7 + 31.7				
		m ³ / h	3.0 + 3.0 ~ 7.2 + 7.2			3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1				Inverter scroll hermetic compressor x 1				
	Starting method	Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	6.2	4.5		6.2	6.2			
	Case heater	kW	0.045	0.045		0.045	0.045			
External finish		Powder coating <MUNSELL 5Y 8/1>				Powder coating <MUNSELL 5Y 8/1>				
External dimension H x W x D		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	
		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	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)				High pressure sensor, High pressure switch at 4.15MPa (601 psi)			
	Inverter circuit		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		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)	
Net weight		lbs (kg)	490 (222)		490 (222)		490 (222)		490 (222)	
Heat exchanger		plate type		plate type		plate type		plate type		
		Water volume in plate	G	1.22		1.22		1.22		
			l	4.6		4.6		4.6		
		Water pressure	psi	290		290		290		
			Max.	MPa	2.0		2.0		2.0	
Optional parts			Heat Source Twinning kit: CMY-R200NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV				Heat Source Twinning kit: CMY-R200NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)

WR-Series **R32**

PQRY-M TSXU-A(208-230V)



Heat Source Model			PQRY-M288TSXU-A		PQRY-M312TSXU-A		PQRY-M336TSXU-A	
Indoor Model			Non-Ducted		Ducted		Non-Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		3-phase 3-wire 208-230 V ±10% 60 Hz		3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1	BTU / h	288,000		312,000		336,000	
		kW	84.4		91.4		98.5	
	(208-230)	Power input	21.07		23.44		25.69	
		Current input	64.9-58.7		72.2-65.3		79.2-71.6	
(Rated)	(208-230)	BTU / h	276,000		298,000		320,000	
		kW	80.9		87.3		93.8	
	(208-230)	Power input	19.59	21.96	21.83	24.16	24.62	26.69
		Current input	60.4-54.6	67.7-61.2	67.3-60.8	74.5-67.3	75.9-68.6	82.3-74.4
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	323,000		350,000		378,000	
		kW	94.7		102.6		110.8	
	(208-230)	Power input	16.03		18.13		20.20	
		Current input	49.4-44.7		55.9-50.5		62.2-56.3	
(Rated)	(208-230)	BTU / h	304,000		334,000		360,000	
		kW	89.1		97.9		105.5	
	(208-230)	Power input	14.30	14.45	15.82	16.24	17.14	17.83
		Current input	44.1-39.8	44.5-40.3	48.7-44.1	50.0-45.2	52.8-47.8	54.9-49.7
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
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		M04~M96/50		M04~M96/50		M04~M96/50	
Sound pressure level (measured in anechoic room)	*3	dB <A>	71.0		73.5		75.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
	Gas pipe	in. (mm)	1-3/8 (34.93) Brazed		1-3/8 (34.93) Brazed		1-5/8 (41.28) Brazed	

Set Model

Model			PQRY-M144TXU-A	PQRY-M144TXU-A	PQRY-M168TXU-A	PQRY-M144TXU-A	PQRY-M168TXU-A	PQRY-M168TXU-A	
Minimum Circuit Ampacity			A	42-38	42-38	48-48	42-38	48-48	
Maximum Overcurrent Protection			A	70-60	70-60	80-80	70-60	80-80	
Inlet water	Water flow rate	G / h	1,902 + 1,902			1,902 + 1,902			
		G / min	31.7 + 31.7			31.7 + 31.7			
		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	psi	6.38	6.38	6.38	6.38	6.38	6.38	
		kPa	44	44	44	44	44	44	
	Operating volume range	G / h	1,189 + 1,189 ~ 3,054 + 3,054		1,189 + 1,189 ~ 3,054 + 3,054		1,189 + 1,189 ~ 3,054 + 3,054		
		G / min	19.8 + 19.8 ~ 50.9 + 50.9		19.8 + 19.8 ~ 50.9 + 50.9		19.8 + 19.8 ~ 50.9 + 50.9		
		m ³ / h	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 x Quantity	Inverter scroll hermetic compressor x 1			Inverter scroll hermetic compressor x 1			Inverter scroll hermetic compressor x 1	
	Starting method	Inverter			Inverter			Inverter	
	Motor output	kW	8.0			8.0			10.3
	Case heater	kW	0.045			0.045			0.045
External finish			Powder coating <MUNSELL 5Y 8/1>			Powder coating <MUNSELL 5Y 8/1>			Powder coating <MUNSELL 5Y 8/1>
External dimension H x W x D		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	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	
		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	1,450 x 880 x 550	1,450 x 880 x 550	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)			High pressure sensor, High pressure switch at 4.15MPa (601 psi)			High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter circuit	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	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)	R32 x 9 lbs + 15 oz (4.5 kg)		
Net weight		lbs (kg)	499 (226)	499 (226)	499 (226)	499 (226)	499 (226)		
Heat exchanger			plate type	plate type	plate type	plate type	plate type		
		Water volume in plate	G	1.22	1.22	1.22	1.22		
			l	4.6	4.6	4.6	4.6		
		Water pressure	psi	290	290	290	290		
Max.		MPa	2.0	2.0	2.0	2.0			
Optional parts			Heat Source Twinning kit: CMY-R300NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303,304S-G1			Heat Source Twinning kit: CMY-R300NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303,304S-G1			Heat Source Twinning kit: CMY-R300NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303,304S-G1
			Main BC controller: CMB-M104,106,108,1012NU-MA1-SV			Main BC controller: CMB-M104,106,108,1012NU-MA1-SV			Main BC controller: CMB-M104,106,108,1012NU-MA1-SV
			Sub BC controller: CMB-M104,108NU-MB1-SV			Sub BC controller: CMB-M104,108NU-MB1-SV			Sub BC controller: CMB-M104,108NU-MB1-SV

WR-Series **R32**

PQRY-M YXU-A(460V)



Heat Source Model			PQRY-M72YXU-A		PQRY-M96YXU-A		PQRY-M120YXU-A		
Indoor Model			Non-Ducted		Ducted		Non-Ducted		
Power source			3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU / h	72,000		96,000		120,000		
		kW	21.1		28.1		35.2		
	(208-230)	Power input	kW		3.43		5.18		
		Current input	A		4.7		7.21		
	(Rated)	BTU / h	69,000		92,000		115,000		
		kW	20.2		27.0		33.7		
	(208-230)	Power input	kW		3.48		5.19		
		Current input	A		4.8		7.2		
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)	
		Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	80,000		108,000		135,000		
		kW	23.4		31.7		39.6		
	(208-230)	Power input	kW		3.38		4.81		
		Current input	A		4.7		6.7		
	(Rated)	BTU / h	76,000		103,000		129,000		
		kW	22.3		30.2		37.8		
	(208-230)	Power input	kW		3.01		4.28		
		Current input	A		4.1		5.9		
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)	
		Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
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	M04~M96/14		M04~M96/19		M04~M96/24		
Sound pressure level (measured in anechoic room)		*3	dB <A>		60.5		65.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		3/4 (19.05) Brazed		3/4 (19.05) Brazed		
	Gas pipe	in. (mm)	3/4 (19.05) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed		
Minimum Circuit Ampacity		A	8		11		15		
Maximum Overcurrent Protection		A	15		15		25		
Inlet water	Water flow rate	G / h	1,440		1,522		1,522		
		G / min	24		25.4		25.4		
		m ³ / h	5.45		5.76		5.76		
		L / min	91		96		96		
		cfm	3.2		3.4		3.4		
	Pressure drop	psi	3.48		3.48		3.48		
		kPa	24		24		24		
	Operating volume range	G / h	793 ~ 1,902		793 ~ 1,902		793 ~ 1,902		
		G / min	13.2 ~ 31.7		13.2 ~ 31.7		13.2 ~ 31.7		
		m ³ / h	3.0 ~ 7.2		3.0 ~ 7.2		3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		
	Starting method		Inverter		Inverter		Inverter		
	Motor output		kW		3.0		4.5		
	Case heater		kW		0.045		0.045		
External finish		Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>			
External dimension H x W x D		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		
		mm	1,450 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		
	Inverter circuit		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	R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		
Net weight		lbs (kg)	525 (238)		525 (238)		523 (237)		
Heat exchanger		plate type		plate type		plate type			
		Water volume in plate	G	1.22		1.22			
			l	4.6		4.6			
		Water pressure	psi	290		290			
Max.		MPa	2.0		2.0		2.0		
Optional parts			joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV		joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV		joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV		

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)

WR-Series **R32**

PQRY-M YXU-A(460V)



Heat Source Model			PQRY-M144YXU-A		PQRY-M168YXU-A		PQRY-M192YXU-A				
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted		
Power source			3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU / h	144,000		168,000		192,000				
		kW	42.2		49.2		56.3				
	(208-230)	Power input	kW		9.30		11.87		14.66		
		Current input	A		12.9		16.5		20.4		
	(Rated)	BTU / h	138,000		160,000		184,000				
		kW	40.4		46.9		53.9				
	(208-230)	Power input	kW		9.15		11.58		14.73		
		Current input	A		12.7		16.9		20.1		
	Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)	
	cooling		Inlet water	°F		50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	160,000		188,000		215,000				
		kW	46.9		55.1		63.0				
	(208-230)	Power input	kW		7.44		9.85		12.10		
		Current input	A		10.3		13.7		16.8		
	(Rated)	BTU / h	152,000		178,000		204,000				
		kW	44.5		52.2		59.8				
	(208-230)	Power input	kW		6.38		8.38		10.38		
		Current input	A		8.8		11.6		14.4		
	Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)	
			Inlet water	°F		50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)	
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		50%~150% of heat source unit capacity		
		Model / Quantity	M04~M96/29		M04~M96/34		M04~M96/39				
Sound pressure level (measured in anechoic room)			*3	dB <A>	68.0		72.0		73.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed				
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed				
Minimum Circuit Ampacity		A	19		25		28				
Maximum Overcurrent Protection		A	30		40		50				
Inlet water	Water flow rate	G / h	1,902		1,902		1,902				
		G / min	31.7		31.7		31.7				
		m³ / h	7.20		7.20		7.20				
		L / min	120		120		120				
		cfm	4.2		4.2		4.2				
	Pressure drop	psi	6.38		6.38		6.38				
		kPa	44		44		44				
		G / h	1,189 ~ 3,054		1,189 ~ 3,054		1,189 ~ 3,054				
	Operating volume range	G / min	19.8 ~ 50.9		19.8 ~ 50.9		19.8 ~ 50.9				
		m³ / h	4.5 ~ 11.6		4.5 ~ 11.6		4.5 ~ 11.6				
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1					
	Starting method	Inverter		Inverter		Inverter					
	Motor output	kW		8.0		10.3		12.7			
	Case heater	kW		0.045		0.045		0.045			
External finish		Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>		Powder coating <MUNSELL 5Y 8/1>					
External dimension H x W x D		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				
		mm	1,450 x 880 x 550		1,450 x 880 x 550		1,450 x 880 x 550				
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)					
	Inverter circuit	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	R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)				
Net weight		lbs (kg)	525 (238)		525 (238)		527 (239)				
Heat exchanger			plate type		plate type		plate type				
			Water volume in plate	G	1.22		1.22		1.22		
				l	4.6		4.6		4.6		
			Water pressure	psi	290		290		290		
			Max.	MPa	2.0		2.0		2.0		
Optional parts			joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1		joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1		joint: CMY-Y102SS-G2,CMY-Y102LS-G2, CMY-R170M-E,PAC-KA01PS-E, CMY-R201,306S-G,CMY-R303, 304S-G1				
			Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV		Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV		Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV				
			Sub BC controller: CMB-M104,108NU-MB1-SV		Sub BC controller: CMB-M104,108NU-MB1-SV		Sub BC controller: CMB-M104,108NU-MB1-SV				

WR-Series **R32**

PQRY-M YXU-A(460V)



Heat Source Model			PQRY-M216YXU-A			PQRY-M240YXU-A			
Indoor Model			Non-Ducted		Ducted	Non-Ducted		Ducted	
			3-phase 3-wire 460V ±10% 60Hz			3-phase 3-wire 460V ±10% 60Hz			
Cooling capacity (Nominal)	*1	BTU / h	216,000			240,000			
		kW	63.3			70.3			
	(208-230)	Power input	15.23			18.27			
		Current input	21.2			25.4			
	(Rated)	BTU / h	206,000			230,000			
		kW	60.4			67.4			
	(208-230)	Power input	17.55		16.74	20.20		20.18	
		Current input	24.4		23.3	28.1		28.1	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)			59~75°F (15~24°C)		
		Inlet water	°F	50~113°F (10~45°C)			50~113°F (10~45°C)		
Heating capacity (Nominal)	*2	BTU / h	243,000			270,000			
		kW	71.2			79.1			
	(208-230)	Power input	12.66			15.24			
		Current input	17.6			21.2			
	(Rated)	BTU / h	232,000			258,000			
		kW	68.0			75.6			
	(208-230)	Power input	11.61		12.43	13.54		14.40	
		Current input	16.1		17.3	18.8		20.0	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)			59~81°F (15~27°C)		
		Inlet water	°F	50~113°F (10~45°C)			50~113°F (10~45°C)		
Indoor unit connectable	Total capacity		50%~150% of heat source unit capacity			50%~150% of heat source unit capacity			
	Model / Quantity		M04~M96/44			M04~M96/49			
Sound pressure level (measured in anechoic room)		*3 dB <A>	72.5			74.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed			7/8 (22.2) Brazed			
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			1-3/8 (34.93) Brazed			
Minimum Circuit Ampacity		A	31			31			
Maximum Overcurrent Protection		A	50			50			
Inlet water	Water flow rate	G / h	3,044			3,044			
		G / min	50.7			50.7			
		m ³ / h	11.52			11.52			
		L / min	192			192			
		cfm	6.8			6.8			
	Pressure drop	psi	6.53			6.53			
		kPa	45			45			
	Operating volume range	G / h	1,585 ~ 3,804			1,585 ~ 3,804			
		G / min	26.4 ~ 63.4			26.4 ~ 63.4			
		m ³ / h	6.0 ~ 14.4			6.0 ~ 14.4			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			Inverter scroll hermetic compressor x 1			
	Starting method		Inverter			Inverter			
	Motor output		13.2			15.8			
	Case heater		0.048			0.048			
External finish			Powder coating <MUNSELL 5Y 8/1>			Powder coating <MUNSELL 5Y 8/1>			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16			57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)			High pressure sensor, High pressure switch at 4.15MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			Over-heat protection			
Refrigerant	Type x original charge		R32 x 16 lbs + 9 oz (7.5 kg)			R32 x 16 lbs + 9 oz (7.5 kg)			
Net weight		lbs (kg)	594 (269)			594 (269)			
Heat exchanger			plate type			plate type			
	Water volume in plate	G	2.43			2.43			
		l	9.2			9.2			
	Water pressure Max.	psi	290			290			
		MPa	2.0			2.0			
Optional parts			joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV			joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1 Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV Sub BC controller: CMB-M104,108NU-MB1-SV			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)

WR-Series **R32**

PQRY-M YSXU-A(460V)



Heat Source Model			PQRY-M144YSXU-A		PQRY-M168YSXU-A		PQRY-M192YSXU-A			
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460 V ±10% 60 Hz		3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1	BTU / h	144,000		168,000		192,000			
		kW	42.2		49.2		56.3			
	(208-230)	Power input	7.40		9.28		10.98			
		Current input	10.3		12.9		15.3			
	(Rated)	BTU / h	138,000		160,000		184,000			
kW		40.4		46.9		53.9				
(208-230)	Power input	kW	7.19	7.89	8.68	9.40	10.33	11.15		
	Current input	A	10.0	11.0	12.1	13.1	14.4	15.5		
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)			
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)			
Heating capacity (Nominal)	*2	BTU / h	160,000		188,000		215,000			
		kW	46.9		55.1		63.0			
	(208-230)	Power input	7.76		8.93		9.91			
		Current input	10.8		12.4		13.8			
	(Rated)	BTU / h	152,000		178,000		204,000			
kW		44.5		52.2		59.8				
(208-230)	Power input	kW	6.41	7.30	7.71	7.95	9.04	8.51		
	Current input	A	8.9	10.1	10.7	11.0	12.6	11.8		
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)			
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)			
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		M04~M96/29		M04~M96/34		M04~M96/39			
Sound pressure level (measured in anechoic room)		*3 dB <A>	63.5		66.5		68.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		7/8 (22.2) Brazed			
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed			

WR-Series R32

PQRY-M YSXU-A(460V)



Heat Source Model			PQRY-M216YSXU-A		PQRY-M240YSXU-A	
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz	
Cooling capacity (Nominal)	*1	BTU / h	216,000		240,000	
		kW	63.3		70.3	
		Power input	12.89		15.19	
	(208-230)	Current input	17.9		21.1	
		BTU / h	206,000		230,000	
		kW	60.4		67.4	
(208-230)		Power input	12.84	13.51	15.38	16.27
		Current input	17.9	18.8	21.4	22.6
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		59~75°F (15~24°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)	
Heating capacity (Nominal)	*2	BTU / h	243,000		270,000	
		kW	71.2		79.1	
		Power input	11.27		12.83	
	(208-230)	Current input	15.7		17.8	
		BTU / h	232,000		258,000	
		kW	68.0		75.6	
(208-230)		Power input	10.55	9.98	12.21	11.75
		Current input	14.7	13.9	17.0	16.3
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		59~81°F (15~27°C)	
	Inlet water	°F	50~113°F (10~45°C)		50~113°F (10~45°C)	
Indoor unit connectable	Total capacity		50%~150% of heat source unit capacity		50%~150% of heat source unit capacity	
	Model / Quantity		M04-M96/44		M04-M96/49	
Sound pressure level (measured in anechoic room)	*3	dB <A>	72.0		74.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-3/8 (34.93) Brazed	

Set Model			PQRY-M120YXU-A		PQRY-M96YXU-A		PQRY-M120YXU-A		PQRY-M120YXU-A	
Minimum Circuit Ampacity			A		15		11		15	
Maximum Overcurrent Protection			A		25		15		25	
Inlet water	Water flow rate	G / h	1,522 + 1,522				1,522 + 1,522			
		G / min	25.4 + 25.4				25.4 + 25.4			
		m³ / h	5.76 + 5.76				5.76 + 5.76			
		L / min	96 + 96				96 + 96			
		cfm	3.4 + 3.4				3.4 + 3.4			
	Pressure drop	psi	3.48		3.48		3.48		3.48	
		kPa	24		24		24		24	
	Operating volume range	G / h	793 + 793 ~ 1,902 + 1,902				793 + 793 ~ 1,902 + 1,902			
		G / min	13.2 + 13.2 ~ 31.7 + 31.7				13.2 + 13.2 ~ 31.7 + 31.7			
		m³ / h	3.0 + 3.0 ~ 7.2 + 7.2				3.0 + 3.0 ~ 7.2 + 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1				Inverter scroll hermetic compressor x 1			
	Starting method		Inverter		Inverter		Inverter		Inverter	
	Motor output	kW	6.2		4.5		6.2		6.2	
	Case heater	kW	0.045		0.045		0.045		0.045	
External finish			Powder coating <MUNSELL 5Y 8/1>				Powder coating <MUNSELL 5Y 8/1>			
External dimension H x W x D		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	
		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	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)				High pressure sensor, High pressure switch at 4.15MPa (601 psi)			
	Inverter circuit		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		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)		R32 x 9 lbs + 15 oz (4.5 kg)	
Net weight		lbs (kg)	523 (237)		525 (238)		523 (237)		523 (237)	
Heat exchanger			plate type		plate type		plate type		plate type	
			Water volume in plate	G	1.22		1.22		1.22	
				l	4.6		4.6		4.6	
			Water pressure	psi	290		290		290	
				Max.	MPa	2.0		2.0		2.0
Optional parts			Heat Source Twinning kit: CMY-R200NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1				Heat Source Twinning kit: CMY-R200NCBK joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R170M-E, PAC-KA01PS-E,CMY-R201,202,306S-G, CMY-R303,304S-G1			
			Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV				Main BC controller: CMB-M104,106,108, 1012NU-MA1-SV			
			Sub BC controller: CMB-M104,108NU-MB1-SV				Sub BC controller: CMB-M104,108NU-MB1-SV			

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)

WR-Series R32

PQRY-M YSXU-A(460V)



Heat Source Model			PQRY-M288YSXU-A		PQRY-M312YSXU-A		PQRY-M336YSXU-A				
Indoor Model			Non-Ducted		Ducted		Non-Ducted		Ducted		
Power source			3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		3-phase 3-wire 460V ±10% 60Hz		
Cooling capacity (Nominal)	*1	BTU / h	288,000		312,000		336,000				
		kW	84.4		91.4		98.5				
		Power input	kW 21.07		23.44		25.69				
	(208-230)	Current input	A 29.3		32.6		35.8				
		(Rated)	BTU / h	276,000		298,000		320,000			
			kW	80.9		87.3		93.8			
(208-230)	Power input		kW 19.59		21.96		24.16		26.69		
	Current input	A 27.3		30.6		33.6		37.2			
	Temp. range of cooling	Indoor	W.B. 59~75°F (15~24°C)		59~75°F (15~24°C)		59~75°F (15~24°C)				
Inlet water		°F 50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)					
Heating capacity (Nominal)	*2	BTU / h	323,000		350,000		378,000				
		kW	94.7		102.6		110.8				
		Power input	kW 16.03		18.13		20.20				
	(208-230)	Current input	A 22.3		25.2		28.1				
		(Rated)	BTU / h	304,000		334,000		360,000			
			kW	89.1		97.9		105.5			
(208-230)	Power input		kW 14.30		14.45		16.24		17.83		
	Current input	A 19.9		20.1		22.6		24.8			
	Temp. range of heating	Indoor	D.B. 59~81°F (15~27°C)		59~81°F (15~27°C)		59~81°F (15~27°C)				
Inlet water		°F 50~113°F (10~45°C)		50~113°F (10~45°C)		50~113°F (10~45°C)					
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	M04~M96/50		M04~M96/50		M04~M96/50					
Sound pressure level (measured in anechoic room)	*3	dB <A>	71.0		73.5		75.0				
Refrigerant piping diameter	Liquid pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed				
	Gas pipe	in. (mm)	1-3/8 (34.93) Brazed		1-3/8 (34.93) Brazed		1-5/8 (41.28) Brazed				



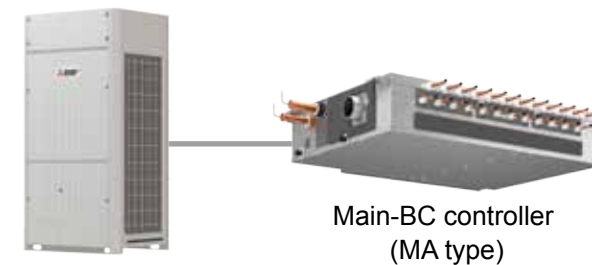
BC Controllers

BC controller features

Lineup of BC controllers

The BC controller lineup consists of two types: the MA type (main-BC controller) and MB type (sub-BC controller).

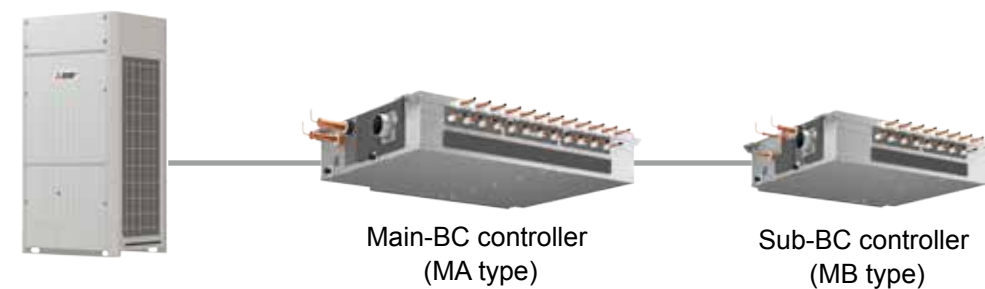
- System with a single BC controller



Main-BC controller (MA type)

Model	Number of branch	Connectable outdoor unit capacity
CMB-M104NU-MA1-SV	4	M72 to M384
CMB-M106NU-MA1-SV	6	
CMB-M108NU-MA1-SV	8	
CMB-M1012NU-MA1-SV	12	

- System with multiple BC controllers

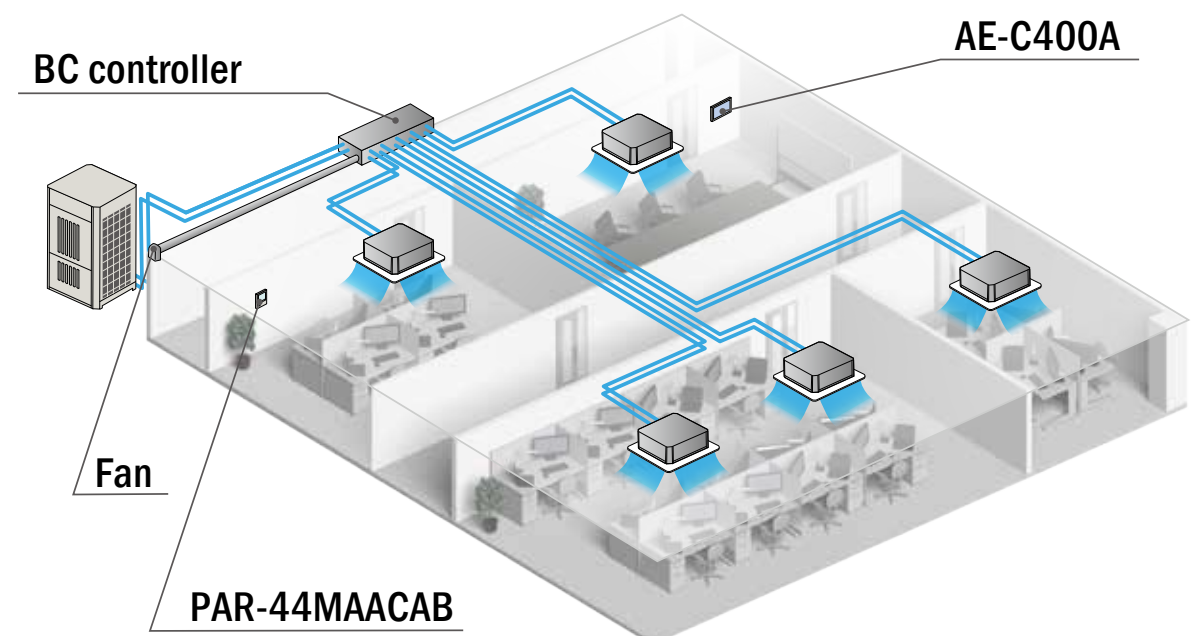


Sub-BC controller (MB types)

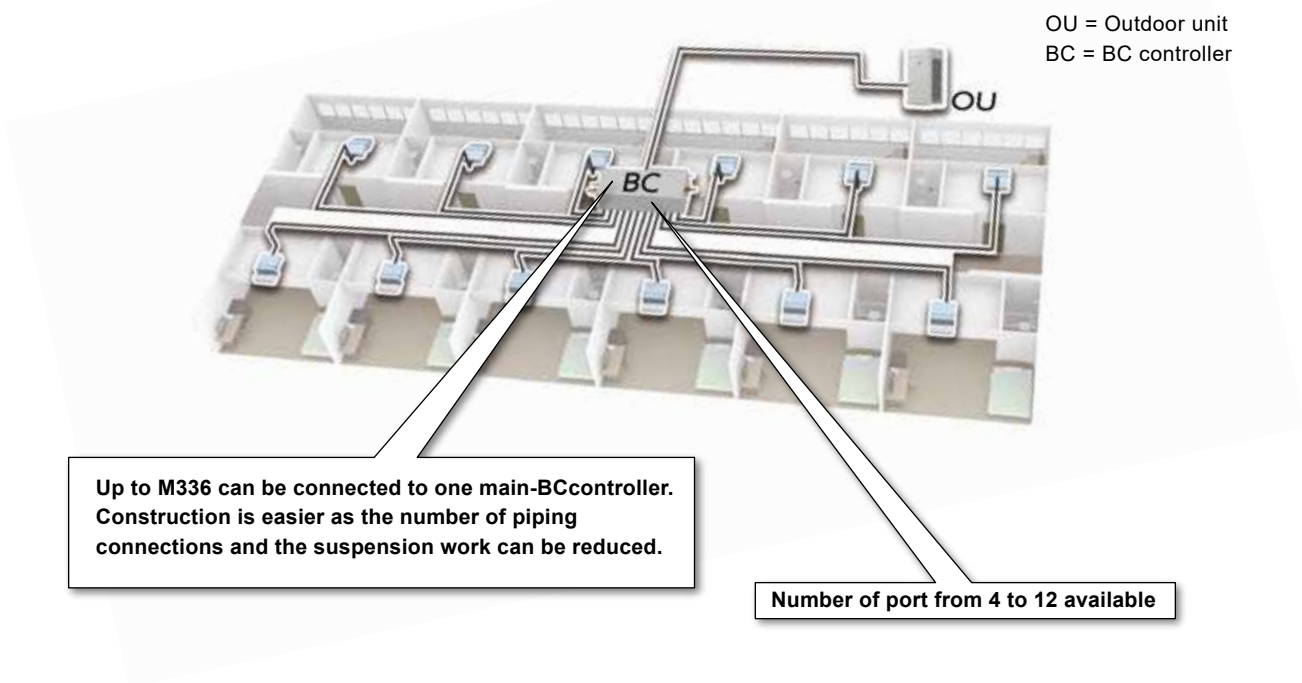
Model	Number of branch	Connectable main BC controller
CMB-M104NU-MB1-SV	4	CMB-M104/106/108/1012NU-MA1-SV
CMB-M108NU-MB1-SV	8	

Enhanced Safety with External Fan Interlock

Featuring a new built-in sensor and duct port, the system now supports signal output to external fans, ensuring immediate ventilation during refrigerant leaks.



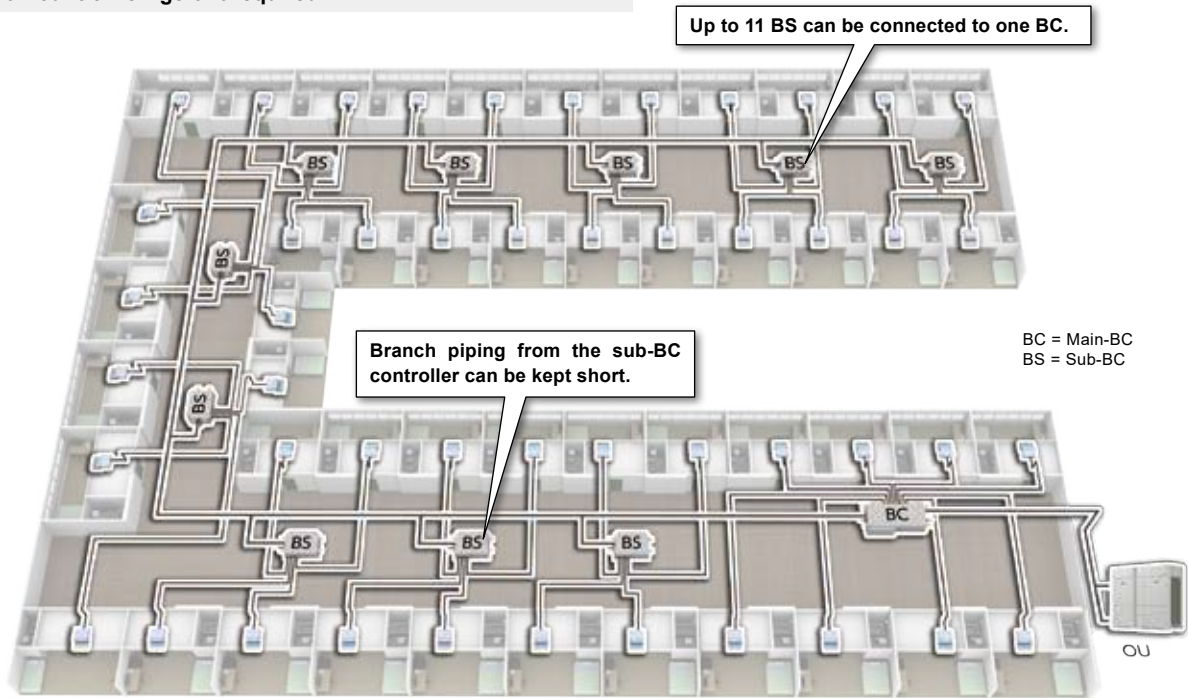
BC controller design can be selected from various patterns depending on use.
Pattern using multi-branch main-BC controller



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

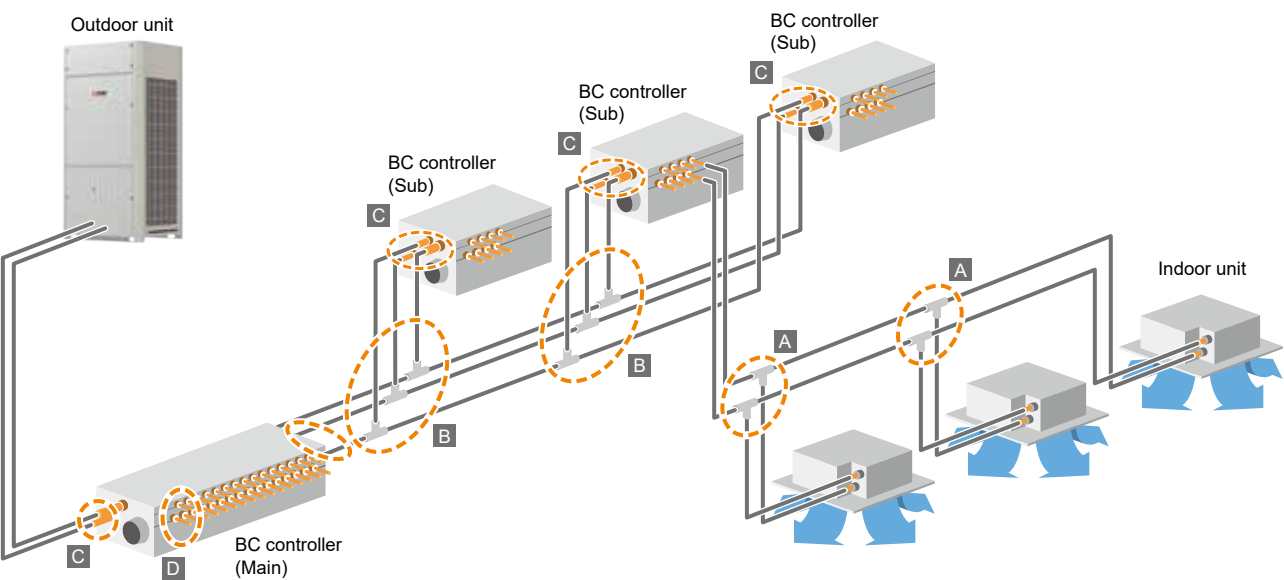
Sub-BC controllers can be installed closer to the indoor units, thus reducing both the total branch length and the amount of refrigerant used.

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



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

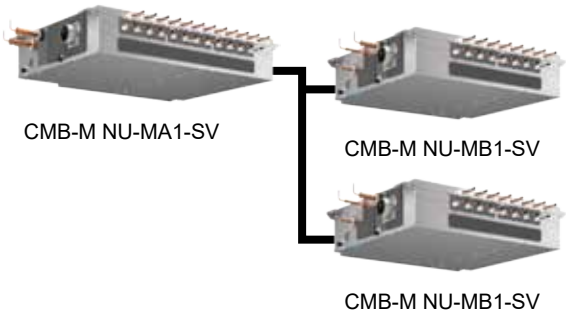
Optional parts
• For BC controllers



A	Branch pipe (Joint)	Between BC and indoor units	CMY-Y102SS-G2	Total down-stream indoor unit capacity: -M72
			CMY-Y102LS-G2	Total down-stream indoor unit capacity: M73-M96
B	Branch joint	Between Main BC and Sub BC	CMY-R201S-G	Total down-stream indoor unit capacity: -M126
			CMY-R202S-G	Total down-stream indoor unit capacity: M127-M216
			CMY-R203S-G	Total down-stream indoor unit capacity: M217-M234
			CMY-R204S-G	Total down-stream indoor unit capacity: M235-
C	Reducer	Between outdoor units and BC	CMY-R304S-G1	For MA type (Outdoor unit capacity: M72-M384)
		Between Main BC and Sub BC	CMY-R303S-G1	For MA type (When using the Sub BC controller)
			CMY-R306S-G	For MB type
D	Cover plug		PAC-KA01PS	For three unused ports, connected blazing
	Joint pipe kit		CMY-R170M-E	Joint for connecting two nozzles

CMB-M NU-MA1-SV

CMB-M NU-MB1-SV



MA type R32

CMB-M NU-MA1-SV

Model			CMB-M104NU-MA1-SV				
Number of branch			4				
Power source			1-phase 208-230V				
			60Hz				
Power input	Cooling	kW	0.03/0.03				
	Heating	kW	0.02/0.02				
Current input	Cooling	A	0.11/0.12				
	Heating	A	0.08/0.08				
External finish			Galvanized steel plate				
Connectable outdoor/heat source unit capacity			M72 to M384				
Indoor unit capacity connectable to 1 branch		*15	Model M54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds M55.)				
External dimension H x W x D		*16	9-15/16 x 41 x 34-11/16(38-1/4)				
		mm	252 x 1040 x 880(970)				
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe	
	*17	in.(mm) O.D.	M72		5/8 (15.88) Brazed	3/4 (19.05) Brazed	
		in.(mm) O.D.	M96		3/4 (19.05) Brazed	7/8 (22.2) Brazed	
		in.(mm) O.D.	M120		3/4 (19.05) Brazed	7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	
		in.(mm) O.D.	M144 to M192		7/8 (22.2) Brazed	1-1/8 (28.58) Brazed	
		in.(mm) O.D.	M216		7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed or 1-3/8 (34.93) Brazed	
		in.(mm) O.D.	M240		7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed	
	*17	in.(mm) O.D.	M264 to M288		1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed	
		in.(mm) O.D.	M312		1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed or 1-5/8 (41.28) Brazed	
		in.(mm) O.D.	M336 to M384		1-1/8 (28.58) Brazed	1-5/8 (41.28) Brazed	
		To indoor unit		Liquid pipe		Gas pipe	
		in.(mm) O.D.	Indoor unit Model M18 or smaller 1/4 (6.35) Brazed bigger than M18 3/8 (9.52) Brazed			Indoor unit Model M18 or smaller 1/2 (12.7) Brazed bigger than M18 5/8 (15.88) Brazed (3/4 (19.05) , 7/8 (22.2) with optional joint pipe used.)	
		To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
	in.(mm) O.D.	to M72	5/8 (15.88) Brazed	3/8 (9.52) Brazed	3/4 (19.05) Brazed		
	in.(mm) O.D.	M73 to M108	3/4 (19.05) Brazed	3/8 (9.52) Brazed	7/8 (22.2) Brazed		
	in.(mm) O.D.	M109 to M126	3/4 (19.05) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed		
	in.(mm) O.D.	M127 to M144	7/8 (22.2) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed		
	in.(mm) O.D.	M145 to M216	7/8 (22.2) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed		
	in.(mm) O.D.	M217 to M234	1-1/8 (28.58) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed		
	in.(mm) O.D.	M235 to M288	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-3/8 (34.93) Brazed		
	in.(mm) O.D.	M289 or above	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-5/8 (41.28) Brazed		
Field drain pipe size		in.	3/4 NPT				
Net weight		lbs (kg)	117 (53)				
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50				
	Defrost	dB <A>	56				
Maximum allowable air flow rate *19		m³/h	1000.0				
Minimum allowable air flow rate *19		m³/h	160.0				
Accessories			Details refer to External Drw				
Remarks			Duct connecting flange				
			-				

Notes:

- 1.Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- 2.The equipment is for R32 refrigerant.
- 3.Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
- 4.Sound pressure differs depending on the connected outdoor/heat source unit capacity or operation condition.The sound pressure level at the rated operation is the value of the cooling mode.
- 5.The sound pressure values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 7.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 8.This unit is not designed for outside installations.
- 9.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 10.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 11.The ambient relative humidity of the BC controller needs to be kept below 80%.

- 12.R32 is flammable, and certain restrictions apply to the installation of units. When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed. For detail, refer to the section in the DATA BOOK on installation restrictions.
- 13.For the insulation work of the piping and the installation method of the unit, follow the installation manual.
- 14.A minimum floor are requirement varies depending on the installation site
- 15.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 16.The figure in parenthesis indicates the size including control box.
- 17.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 18.The sound pressure level measured by the conventional method in JIS for reference purpose.
- 19.When ventilating inside the enclosure, the inside of the unit must have a negative pressure of 20 Pa from the surrounding area. Design ducts and select a ventilation fan so that their flow rate on the exhaust side of the unit is more than the minimum allowable airflow rate and less than the maximum allowable air flow rate. If you drill a hole in the duct to measure the air flow rate, seal the hole after the measurement. To accurately measure the air flow rate, eliminate the gap between the measuring instrument and the measuring hole to ensure noair leakage.
- 20.For ventilation inside the enclosure, refer to the PQ diagram in the DATA BOOK to design ducts and select a ventilation fan. Please refer to the installation manual for the installationof ducts and a ventilation fan.
- 21.Multiple parallel BC controllers can be connected to a ventilation fan. If a refrigerant leak occurs on any of the BC controllers, all BC controllers are ventilated by a ventilation fan.
- 22.It is not allowed to connect multiple BC controllers in series to a ventilation fan.

MA type R32

CMB-M NU-MA1-SV

Model			CMB-M106NU-MA1-SV			
Number of branch			6			
Power source			1-phase 208-230V			
			60Hz			
Power input	Cooling	kW	0.03/0.03			
	Heating	kW	0.02/0.02			
Current input	Cooling	A	0.11/0.12			
	Heating	A	0.08/0.08			
External finish			Galvanized steel plate			
Connectable outdoor/heat source unit capacity			M72 to M384			
Indoor unit capacity connectable to 1 branch		*15	Model M54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds M55.)			
External dimension H x W x D		*16	9-15/16 x 41 x 34-11/16(38-1/4)			
		in.				
		mm	252 x 1040 x 880(970)			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe
	*17	in.(mm) O.D.	M72		5/8 (15.88) Brazed	3/4 (19.05) Brazed
		in.(mm) O.D.	M96		3/4 (19.05) Brazed	7/8 (22.2) Brazed
		in.(mm) O.D.	M120		3/4 (19.05) Brazed	7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed
		in.(mm) O.D.	M144 to M192		7/8 (22.2) Brazed	1-1/8 (28.58) Brazed
	*17	in.(mm) O.D.	M216		7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed or 1-3/8 (34.93) Brazed
		in.(mm) O.D.	M240		7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed
	*17	in.(mm) O.D.	M264 to M288		1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed
		in.(mm) O.D.	M312		1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed or 1-5/8 (41.28) Brazed
		in.(mm) O.D.	M336 to M384		1-1/8 (28.58) Brazed	1-5/8 (41.28) Brazed
		To indoor unit		Liquid pipe		Gas pipe
		in.(mm) O.D.	Indoor unit Model M18 or smaller 1/4 (6.35) Brazed bigger than M18 3/8 (9.52) Brazed			Indoor unit Model M18 or smaller 1/2 (12.7) Brazed bigger than M18 5/8 (15.88) Brazed (3/4 (19.05) , 7/8 (22.2) with optional joint pipe used.)
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		in.(mm) O.D.	to M72	5/8 (15.88) Brazed	3/8 (9.52) Brazed	3/4 (19.05) Brazed
		in.(mm) O.D.	M73 to M108	3/4 (19.05) Brazed	3/8 (9.52) Brazed	7/8 (22.2) Brazed
		in.(mm) O.D.	M109 to M126	3/4 (19.05) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M127 to M144	7/8 (22.2) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M145 to M216	7/8 (22.2) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M217 to M234	1-1/8 (28.58) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
	in.(mm) O.D.	M235 to M288	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-3/8 (34.93) Brazed	
	in.(mm) O.D.	M289 or above	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-5/8 (41.28) Brazed	
Field drain pipe size		in.	3/4 NPT			
Net weight		lbs (kg)	126 (57)			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50			
	Defrost	dB <A>	56			
Maximum allowable air flow rate		*19 m ³ /h	1000.0			
Minimum allowable air flow rate		*19 m ³ /h	160.0			
Accessories			Details refer to External Drw			
			Duct connecting flange			
Remarks			-			

Notes:

- 1.Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- 2.The equipment is for R32 refrigerant.
- 3.Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
- 4.Sound pressure differs depending on the connected outdoor/heat source unit capacity or operation condition.The sound pressure level at the rated operation is the value of the cooling mode.
- 5.The sound pressure values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 7.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 8.This unit is not designed for outside installations.
- 9.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 10.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 11.The ambient relative humidity of the BC controller needs to be kept below 80%.
- 12.R32 is flammable, and certain restrictions apply to the installation of units. When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed. For detail, refer to the section in the DATA BOOK on installation restrictions.
- 13.For the insulation work of the piping and the installation method of the unit, follow the installation manual.

- 14.A minimum floor are requirement varies depending on the installation site
- 15.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 16.The figure in parenthesis indicates the size including control box.
- 17.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 18.The sound pressure level measured by the conventional method in JIS for reference purpose.
- 19.When ventilating inside the enclosure, the inside of the unit must have a negative pressure of 20 Pa from the surrounding area. Design ducts and select a ventilation fan so that their flow rate on the exhaust side of the unit is more than the minimum allowable airflow rate and less than the maximum allowable air flow rate. If you drill a hole in the duct to measure the air flow rate, seal the hole after the measurement. To accurately measure the air flow rate, eliminate the gap between the measuring instrument and the measuring hole to ensure noair leakage.
- 20.For ventilation inside the enclosure, refer to the PQ diagram in the DATA BOOK to design ducts and select a ventilation fan. Please refer to the installation manual for the installationof ducts and a ventilation fan.
- 21.Multiple parallel BC controllers can be connected to a ventilation fan. If a refrigerant leak occurs on any of the BC controllers, all BC controllers are ventilated by a ventilation fan.
- 22.It is not allowed to connect multiple BC controllers in series to a ventilation fan.

MA type

R32

CMB-M NU-MA1-SV

Model			CMB-M108NU-MA1-SV			
Number of branch			8			
Power source			1-phase 208-230V			
			60Hz			
Power input	Cooling	kW	0.03/0.03			
	Heating	kW	0.02/0.02			
Current input	Cooling	A	0.12/0.13			
	Heating	A	0.09/0.09			
External finish			Galvanized steel plate			
Connectable outdoor/heat source unit capacity			M72 to M384			
Indoor unit capacity connectable to 1 branch			*15 Model M54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds M55.)			
External dimension H x W x D		*16	in.	9-15/16 x 41 x 34-11/16(38-1/4)		
		mm	252 x 1040 x 880(970)			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe
	*17	in.(mm) O.D.	M72	5/8 (15.88) Brazed	3/4 (19.05) Brazed	
		in.(mm) O.D.	M96	3/4 (19.05) Brazed	7/8 (22.2) Brazed	
		in.(mm) O.D.	M120	3/4 (19.05) Brazed	7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	
		in.(mm) O.D.	M144 to M192	7/8 (22.2) Brazed	1-1/8 (28.58) Brazed	
	*17	in.(mm) O.D.	M216	7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed or 1-3/8 (34.93) Brazed	
		in.(mm) O.D.	M240	7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed	
	*17	in.(mm) O.D.	M264 to M288	1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed	
		in.(mm) O.D.	M312	1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed or 1-5/8 (41.28) Brazed	
		in.(mm) O.D.	M336 to M384	1-1/8 (28.58) Brazed	1-5/8 (41.28) Brazed	
	To indoor unit		Liquid pipe		Gas pipe	
		in.(mm) O.D.	Indoor unit Model M18 or smaller 1/4 (6.35) Brazed bigger than M18 3/8 (9.52) Brazed		Indoor unit Model M18 or smaller 1/2 (12.7) Brazed bigger than M18 5/8 (15.88) Brazed (3/4 (19.05) , 7/8 (22.2) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
		in.(mm) O.D.	to M72	5/8 (15.88) Brazed	3/8 (9.52) Brazed	3/4 (19.05) Brazed
		in.(mm) O.D.	M73 to M108	3/4 (19.05) Brazed	3/8 (9.52) Brazed	7/8 (22.2) Brazed
		in.(mm) O.D.	M109 to M126	3/4 (19.05) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M127 to M144	7/8 (22.2) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M145 to M216	7/8 (22.2) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M217 to M234	1-1/8 (28.58) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
		in.(mm) O.D.	M235 to M288	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-3/8 (34.93) Brazed
		in.(mm) O.D.	M289 or above	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-5/8 (41.28) Brazed
	Field drain pipe size		in.	3/4 NPT		
	Net weight		lbs (kg)	139 (63)		
	Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50		
Defrost		dB <A>	56			
Maximum allowable air flow rate		*19 m³/h	1000.0			
Minimum allowable air flow rate		*19 m³/h	160.0			
Accessories			Details refer to External Drw			
Remarks			Duct connecting flange			
			-			

Notes:

- 1.Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- 2.The equipment is for R32 refrigerant.
- 3.Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
- 4.Sound pressure differs depending on the connected outdoor/heat source unit capacity or operation condition.The sound pressure level at the rated operation is the value of the cooling mode.
- 5.The sound pressure values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 7.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 8.This unit is not designed for outside installations.
- 9.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 10.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 11.The ambient relative humidity of the BC controller needs to be kept below 80%.
- 12.R32 is flammable, and certain restrictions apply to the installation of units. When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed. For detail, refer to the section in the DATA BOOK on installation restrictions.

- 13.For the insulation work of the piping and the installation method of the unit, follow the installation manual.
- 14.A minimum floor are requirement varies depending on the installation site
- 15.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 16.The figure in parenthesis indicates the size including control box.
- 17.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 18.The sound pressure level measured by the conventional method in JIS for reference purpose.
- 19.When ventilating inside the enclosure, the inside of the unit must have a negative pressure of 20 Pa from the surrounding area. Design ducts and select a ventilation fan so that their flow rate on the exhaust side of the unit is more than the minimum allowable airflow rate and less than the maximum allowable air flow rate. If you drill a hole in the duct to measurethe air flow rate, seal the hole after the measurement. To accurately measure the air flow rate, eliminate the gap between the measuring instrument and the measuring hole to ensure noair leakage.
- 20.For ventilation inside the enclosure, refer to the PQ diagram in the DATA BOOK to design ducts and select a ventilation fan. Please refer to the installation manual for the installationof ducts and a ventilation fan.
- 21.Multiple parallel BC controllers can be connected to a ventilation fan. If a refrigerant leak occurs on any of the BC controllers, all BC controllers are ventilated by a ventilation fan.
- 22.It is not allowed to connect multiple BC controllers in series to a ventilation fan.

MA type

R32

CMB-M NU-MA1-SV

Model			CMB-M1012NU-MA1-SV				
Number of branch			12				
Power source			1-phase 208-230V				
			60Hz				
Power input	Cooling	kW	0.03/0.03				
	Heating	kW	0.02/0.02				
Current input	Cooling	A	0.12/0.13				
	Heating	A	0.09/0.09				
External finish			Galvanized steel plate				
Connectable outdoor/heat source unit capacity			M72 to M384				
Indoor unit capacity connectable to 1 branch			*15 Model M54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds M55.)				
External dimension H x W x D		*16	9-15/16 x 41 x 34-11/16(38-1/4)				
		mm	252 x 1285 x 880(970)				
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe	
	*17	in.(mm) O.D.	M72		5/8 (15.88) Brazed	3/4 (19.05) Brazed	
		in.(mm) O.D.	M96		3/4 (19.05) Brazed	7/8 (22.2) Brazed	
		in.(mm) O.D.	M120		3/4 (19.05) Brazed	7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	
		in.(mm) O.D.	M144 to M192		7/8 (22.2) Brazed	1-1/8 (28.58) Brazed	
	*17	in.(mm) O.D.	M216		7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed or 1-3/8 (34.93) Brazed	
	*17	in.(mm) O.D.	M240		7/8 (22.2) Brazed or 1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed	
	*17	in.(mm) O.D.	M264 to M288		1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed	
		in.(mm) O.D.	M312		1-1/8 (28.58) Brazed	1-3/8 (34.93) Brazed or 1-5/8 (41.28) Brazed	
		in.(mm) O.D.	M336 to M384		1-1/8 (28.58) Brazed	1-5/8 (41.28) Brazed	
		To indoor unit		Liquid pipe		Gas pipe	
		in.(mm) O.D.	Indoor unit Model M18 or smaller 1/4 (6.35) Brazed bigger than M18 3/8 (9.52) Brazed			Indoor unit Model M18 or smaller 1/2 (12.7) Brazed bigger than M18 5/8 (15.88) Brazed (3/4 (19.05) , 7/8 (22.2) with optional joint pipe used.)	
	To other BC controller		Total down-stream Indoor unit capacity		High press. pipe	Liquid pipe	Low press. pipe
		in.(mm) O.D.	to M72		5/8 (15.88) Brazed	3/8 (9.52) Brazed	3/4 (19.05) Brazed
		in.(mm) O.D.	M73 to M108		3/4 (19.05) Brazed	3/8 (9.52) Brazed	7/8 (22.2) Brazed
	in.(mm) O.D.	M109 to M126		3/4 (19.05) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed	
	in.(mm) O.D.	M127 to M144		7/8 (22.2) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed	
	in.(mm) O.D.	M145 to M216		7/8 (22.2) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed	
	in.(mm) O.D.	M217 to M234		1-1/8 (28.58) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed	
	in.(mm) O.D.	M235 to M288		1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-3/8 (34.93) Brazed	
	in.(mm) O.D.	M289 or above		1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-5/8 (41.28) Brazed	
Field drain pipe size		in.	3/4 NPT				
Net weight		lbs (kg)	170 (77)				
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50				
	Defrost	dB <A>	56				
Maximum allowable air flow rate		*19 m³/h	1000.0				
Minimum allowable air flow rate		*19 m³/h	150.0				
Accessories			Details refer to External Drw				
Remarks			Duct connecting flange				
			-				

MB type

CMB-M NU-MB1-SV

Model			CMB-M104NU-MB1-SV				
Number of branch			4				
Power source			1-phase 208-230V				
			60Hz				
Power input	Cooling	kW	0.02/0.02				
	Heating	kW	0.02/0.02				
Current input	Cooling	A	0.08/0.08				
	Heating	A	0.08/0.08				
External finish			Galvanized steel plate				
Connectable Main BC controller			CMB-M104/106/108/1012NU-MA1-SV				
The maximum number of connectable Sub BC controllers			11				
The maximum connectable capacity of indoor units			M126 for each				
Indoor unit capacity connectable to 1 branch		*16	Model M54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds M55.)				
External dimension H x W x D	*17	in.	9-15/16 x 41 x 34-11/16(38-1/4)				
		mm	252 x 1040 x 880(970)				
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe	
							in.(mm) O.D.
	To indoor unit		Liquid pipe		Gas pipe		
			in.(mm) O.D.		Indoor unit Model M18 or smaller 1/4 (6.35) Brazed bigger than M18 3/8 (9.52) Brazed		Indoor unit Model M18 or smaller 1/2 (12.7) Brazed bigger than M18 5/8 (15.88) Brazed (3/4 (19.05) , 7/8 (22.2) with optional joint pipe used.)
	To other BC controller		Total down-stream Indoor unit capacity		High press. pipe	Liquid pipe	Low press. pipe
			in.(mm) O.D. to M72		5/8 (15.88) Brazed	3/8 (9.52) Brazed	3/4 (19.05) Brazed
			in.(mm) O.D. M73 to M108		3/4 (19.05) Brazed	3/8 (9.52) Brazed	7/8 (22.2) Brazed
			in.(mm) O.D. M109 to M126		3/4 (19.05) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
			in.(mm) O.D. M127 to M144		7/8 (22.2) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
			in.(mm) O.D. M145 to M216		7/8 (22.2) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
			in.(mm) O.D. M217 to M234		1-1/8 (28.58) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
			in.(mm) O.D. M235 to M288		1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-3/8 (34.93) Brazed
			in.(mm) O.D. M289 or above		1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-5/8 (41.28) Brazed
Field drain pipe size	in.	3/4 NPT					
Net weight		lbs (kg)		95 (43)			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	41				
			Defrost	53			
*18	dB <A>						
		Maximum allowable air flow rate		*19	m³/h	1000.0	
Minimum allowable air flow rate		*19	m³/h	115.0			
Accessories			Details refer to External Drw				
			Duct connecting flange				
Remarks			-				

Notes:

- 1.Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- 2.The equipment is for R32 refrigerant.
- 3.Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
- 4.Sound pressure differs depending on the connected outdoor/heat source unit capacity or operation condition.The sound pressure level at the rated operation is the value of the cooling mode.
- 5.The sound pressure values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 7.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 8.This unit is not designed for outside installations.
- 9.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 10.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 11.The ambient relative humidity of the BC controller needs to be kept below 80%.
- 12.R32 is flammable, and certain restrictions apply to the installation of units. When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed. For detail, refer to the section in the DATA BOOK on installation restrictions.

- 13.For the insulation work of the piping and the installation method of the unit, follow the installation manual.
- 14.A minimum floor are requirement varies depending on the installation site
- 15.Can't use singleness. (MAIN BC CONTROLLER is necessary)
- 16.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 17.The figure in parenthesis indicates the size including control box.
- 18.The sound pressure level measured by the conventional method in JIS for reference purpose.
- 19.When ventilating inside the enclosure, the inside of the unit must have a negative pressure of 20 Pa from the surrounding area. Design ducts and select a ventilation fan so that their flow rate on the exhaust side of the unit is more than the minimum allowable airflow rate and less than the maximum allowable air flow rate. If you drill a hole in the duct to measure the air flow rate, seal the hole after the measurement. To accurately measure the air flow rate, eliminate the gap between the measuring instrument and the measuring hole to ensure no air leakage.
- 20.For ventilation inside the enclosure, refer to the PQ diagram in the DATA BOOK to design ducts and select a ventilation fan. Please refer to the installation manual for the installation of ducts and a ventilation fan.
- 21.Multiple parallel BC controllers can be connected to a ventilation fan. If a refrigerant leak occurs on any of the BC controllers, all BC controllers are ventilated by a ventilation fan.
- 22.It is not allowed to connect multiple BC controllers in series to a ventilation fan.

MB type

CMB-M NU-MB1-SV

Model			CMB-M108NU-MB1-SV			
Number of branch			8			
Power source			1-phase 208-230V			
			60Hz			
Power input	Cooling	kW	0.02/0.02			
	Heating	kW	0.02/0.02			
Current input	Cooling	A	0.09/0.09			
	Heating	A	0.09/0.09			
External finish			Galvanized steel plate			
Connectable Main BC controller			CMB-M104/106/108/1012NU-MA1-SV			
The maximum number of connectable Sub BC controllers			11			
The maximum connectable capacity of indoor units			M126 for each			
Indoor unit capacity connectable to 1 branch		*16	Model M54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds M55.)			
External dimension H x W x D	*17	in.	9-15/16 x 41 x 34-11/16(38-1/4)			
		mm	252 x 1040 x 880(970)			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe
	in.(mm) O.D.		-		-	-
	To indoor unit		Liquid pipe			Gas pipe
	in.(mm) O.D.		Indoor unit Model M18 or smaller 1/4 (6.35) Brazed bigger than M18 3/8 (9.52) Brazed			Indoor unit Model M18 or smaller 1/2 (12.7) Brazed bigger than M18 5/8 (15.88) Brazed (3/4 (19.05) , 7/8 (22.2) with optional joint pipe used.)
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
	in.(mm) O.D.		to M72	5/8 (15.88) Brazed	3/8 (9.52) Brazed	3/4 (19.05) Brazed
	in.(mm) O.D.		M73 to M108	3/4 (19.05) Brazed	3/8 (9.52) Brazed	7/8 (22.2) Brazed
	in.(mm) O.D.		M109 to M126	3/4 (19.05) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
	in.(mm) O.D.		M127 to M144	7/8 (22.2) Brazed	1/2 (12.7) Brazed	1-1/8 (28.58) Brazed
	in.(mm) O.D.		M145 to M216	7/8 (22.2) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
	in.(mm) O.D.		M217 to M234	1-1/8 (28.58) Brazed	5/8 (15.88) Brazed	1-1/8 (28.58) Brazed
	in.(mm) O.D.		M235 to M288	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-3/8 (34.93) Brazed
	in.(mm) O.D.		M289 or above	1-1/8 (28.58) Brazed	3/4 (19.05) Brazed	1-5/8 (41.28) Brazed
Field drain pipe size		in.	3/4 NPT			
Net weight		lbs (kg)	120 (54)			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	41			
		Defrost	53			
Maximum allowable air flow rate		*19 m³/h	1000.0			
Minimum allowable air flow rate		*19 m³/h	115.0			
Accessories			Details refer to External Drw			
			Duct connecting flange			
Remarks			-			

Notes:

- 1.Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- 2.The equipment is for R32 refrigerant.
- 3.Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
- 4.Sound pressure differs depending on the connected outdoor/heat source unit capacity or operation condition.The sound pressure level at the rated operation is the value of the cooling mode.
- 5.The sound pressure values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 7.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 8.This unit is not designed for outside installations.
- 9.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 10.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 11.The ambient relative humidity of the BC controller needs to be kept below 80%.
- 12.R32 is flammable, and certain restrictions apply to the installation of units. When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed. For detail, refer to the section in the DATA BOOK on installation restrictions.

- 13.For the insulation work of the piping and the installation method of the unit, follow the installation manual.
- 14.A minimum floor are requirement varies depending on the installation site
- 15.Can't use singleness. (MAIN BC CONTROLLER is necessary)
- 16.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 17.The figure in parenthesis indicates the size including control box.
- 18.The sound pressure level measured by the conventional method in JIS for reference purpose.
- 19.When ventilating inside the enclosure, the inside of the unit must have a negative pressure of 20 Pa from the surrounding area. Design ducts and select a ventilation fan so that their flow rate on the exhaust side of the unit is more than the minimum allowable airflow rate and less than the maximum allowable air flow rate. If you drill a hole in the duct to measure the air flow rate, seal the hole after the measurement. To accurately measure the air flow rate, eliminate the gap between the measuring instrument and the measuring hole to ensure no air leakage.
- 20.For ventilation inside the enclosure, refer to the PQ diagram in the DATA BOOK to design ducts and select a ventilation fan. Please refer to the installation manual for the installation of ducts and a ventilation fan.
- 21.Multiple parallel BC controllers can be connected to a ventilation fan. If a refrigerant leak occurs on any of the BC controllers, all BC controllers are ventilated by a ventilation fan.
- 22.It is not allowed to connect multiple BC controllers in series to a ventilation fan.

CMR-M100KT1-NA

The CMR-M100KT1-NA automatically stops the supply of refrigerant to the indoor units in the event of a refrigerant leak. Controlling multiple indoor units with a Shut off Valve Kit helps reduce costs.

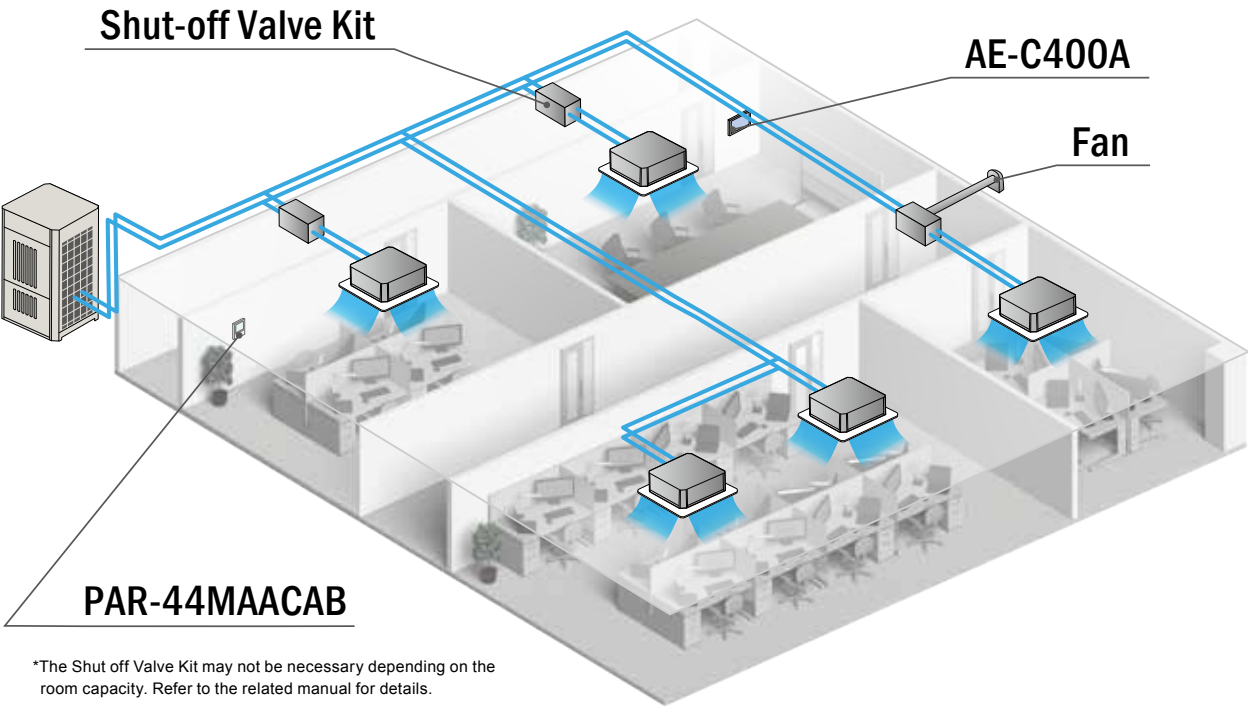


SPECIFICATIONS

Shut off Valve Kit	
Model Number	CMR-M100KT1-NA
Power source	1-phase 208-230V ±10% 60 Hz
External Dimension WxDxH(mm)	324 x 262 x 198
External Dimension WxDxH(inch)	12-13/16 x 10-3/8 x 7-13/16
kg(lbs)	5.5(13)

Enhanced Safety with External Fan Interlock

Featuring a new built-in sensor and duct port, the system now supports signal output to external fans,ensuring immediate ventilation during refrigerant leaks.



*The Shut off Valve Kit may not be necessary depending on the room capacity. Refer to the related manual for details.

Model size		M04	M05	M06	M08	M12	M15	M18	M24	M27	M30	M36	M48	M54	M60	M72	M96
TON		0.33	0.42	0.5	0.67	1.0	1.25	1.5	2.0	2.25	2.5	3.0	4.0	4.5	5.0	6.0	8.0
Nominal cooling capacity*	BTU/h	4,000	5,000	6,000	8,000	12,000	15,000	18,000	24,000	27,000	30,000	36,000	48,000	54,000	59,500	72,000	96,000
	kW	1.1	1.4	1.8	2.3	3.5	4.4	5.3	7.0	7.9	8.8	10.6	14.1	15.8	17.4	21.1	28.1
Nominal heating capacity*	BTU/h	4,500	5,600	6,700	9,000	13,500	17,000	20,000	27,000	30,000	34,000	40,000	54,000	60,000	66,000	80,000	108,000
	kW	1.3	1.6	2.0	2.6	4.0	5.0	5.9	7.9	8.8	10.0	11.7	15.8	17.6	19.3	23.4	31.7
Ceiling cassette		PLFY-EM NEMU-A 3D i-see Sensor			PLFY-M NFMU-A 3D i-see Sensor			PMFY-M NCMU-A									
																	
Model size		M04	M05	M06	M08	M12	M15	M18	M24	M27	M30	M36	M48	M54	M60	M72	M96
PLFY-EM NEMU-A				●	●	●	●	●	●		●	●	●				
PLFY-M NFMU-A			●		●	●	●	●									
PMFY-M NCMU-A				●	●	●	●	●									
Ceiling concealed		PEFY-M NMSU-A			PEFY-M NMAU-A			PEFY-M NMHU-A									
																	
Model size		M04	M05	M06	M08	M12	M15	M18	M24	M27	M30	M36	M48	M54	M60	M72	M96
PEFY-M NMSU-A				●	●	●	●	●	●								
PEFY-M NMAU-A				●	●	●	●	●	●	●	●	●	●	●			
PEFY-M NMHU-A							●	●	●	●	●	●	●	●		●	●
Multi-position air handler		PVFY-M NAMU-A															
																	
Model size		M04	M05	M06	M08	M12	M15	M18	M24	M27	M30	M36	M48	M54	M60	M72	M96
PVFY-M NAMU-A					●	●		●	●		●	●	●	●	●		
Ceiling suspended		PCFY-M NKMU-A															
																	
Model size		M04	M05	M06	M08	M12	M15	M18	M24	M27	M30	M36	M48	M54	M60	M72	M96
PCFY-M NKMU-A							●		●		●	●					
Wall mounted		PKFY-M NLMU-A			PKFY-M NKMU-A												
																	
Model size		M04	M05	M06	M08	M12	M15	M18	M24	M27	M30	M36	M48	M54	M60	M72	M96
PKFY-M NLMU-A		●		●	●	●	●	●									
PKFY-M NKMU-A									●		●						

* Refer to the specification sheet pages for nominal condition information.
* Condensate may form during use, which may result in water remaining in the drain pan.



Ceiling cassette type 4-way airflow type



Ceiling cassette type **R32** **R454B** 4-way airflow type **PLFY-EM NEMU-A**



3D i-see Sensor and versatile airflow variation provide comfort to all corners of the room.

Optimum airflow

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

Three outlet options are available-bidirectional, three-way, and four-way-to suit different types of installation. Select, for example, the four-way pattern for installation in the center of the room and three-way pattern for installation in the corner.

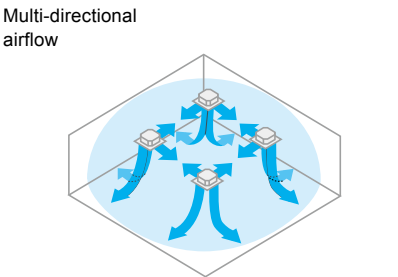
2-, 3-, 4-way airflow pattern selection

* Optional shuffle placement is required for 2- and 3-way patterns.

Individual vane angle settings

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

The airflow direction of each vane can be set using the wired remote controller or wireless remote controller (PAR-FL32MA).

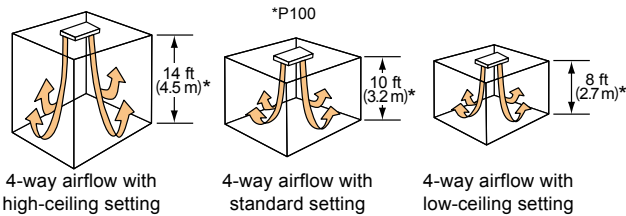


2-, 3-, 4-way airflow pattern selection + individual vane angle settings

Combinations with individual vane settings enable an optimal outlet setting for each room layout to ensure even temperature distribution throughout each room. The result is uniformly comfortable airflow.

Equipped with high- and low-ceiling modes

Units are equipped with high- and low-ceiling operation modes that make it possible to switch the airflow volume to match the height of the room. Being able to choose the optimum airflow volume helps optimize the breezy sensation felt throughout the room.



Model	EM06-EM15			EM18-EM48		
	High-ceiling setting	Standard setting	Low-ceiling setting	High-ceiling setting	Standard setting	Low-ceiling setting
4-way	11 ft (3.5 m)	8 ft (2.7 m)	8 ft (2.5 m)	14 ft (4.5 m)	10 ft (3.2 m)	8 ft (2.7 m)
3-way	11 ft (3.5 m)	9 ft (3.0 m)	8 ft (2.7 m)	14 ft (4.5 m)	11 ft (3.6 m)	9 ft (3.0 m)
2-way	11 ft (3.5 m)	10 ft (3.3 m)	9 ft (3.0 m)	14 ft (4.5 m)	13 ft (4.0 m)	10 ft (3.3 m)

Automatic air-speed adjustment

An automatic air-speed mode automatically adjusts airflow speed to maintain comfortable room conditions at all times. This setting automatically adjusts the air speed to conditions that match the room environment.

Strong

At the start of the heating/cooling operation, airflow is set to high speed to quickly heat/cool the room.

Gentle

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

Easy installation

Temporary hanging hook

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



No need to remove screws

Installation is possible without removing the screws for the corner panel and the control box; they simply need to be loosened. This lowers the risk of losing screws.

• Corner panel



• Control box cover



Electrical box wiring

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

• Conventional model



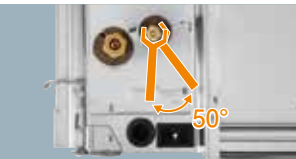
• Latest model



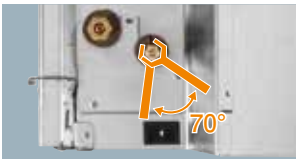
Increased space for plumbing work

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

• Conventional model



• Latest model

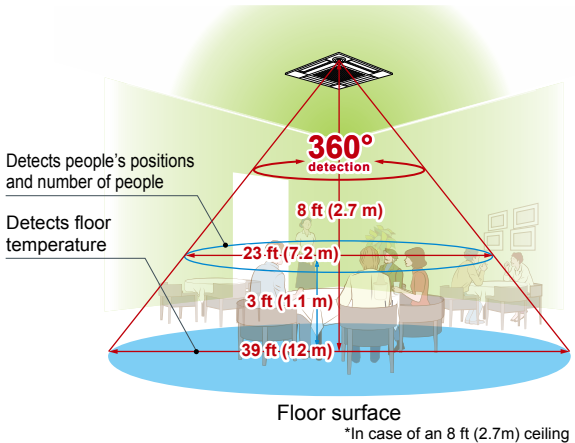
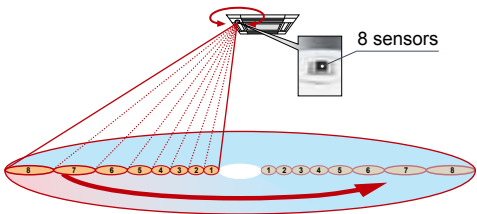


3D i-see Sensor



• Highly accurate people detection

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

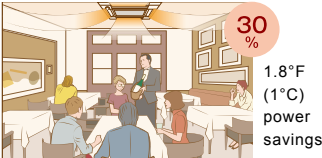


• Detects number of people

Room occupancy energy saving mode

The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time to save power. Air-conditioning power equivalent to 1.8°F (1°C) is saved during both cooling and heating operations at an occupancy rate of approximately 30%. The temperature is controlled according to the number of people.

Room occupancy energy saving mode



No occupancy energy saving mode

When 3D i-see Sensor detects no one in the room, the system is switched to a preset power-saving mode. If the room remains unoccupied for more than 60 minutes, the unit's power equivalent to 3.6°F (2°C) is saved during both cooling and heating operations. This contributes to preventing waste in terms of heating and cooling.

No occupancy energy saving mode



No occupancy Auto-OFF mode

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

No occupancy Auto-OFF mode



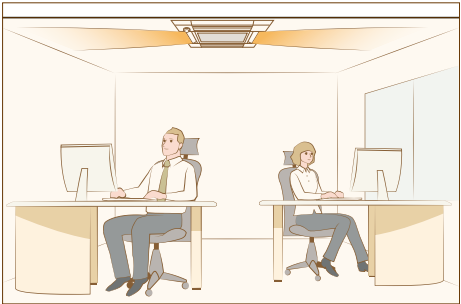
*No occupancy Auto-OFF mode is not available when multiple indoor units are operated by a single MA remote controller.

*PAR-41MAAU is required for each setting.

• Detects people's positions

Direct/indirect settings*

Some people do not like the feeling of wind, while others want to be warm from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, each vane can be set to block or not block the wind.



*PAR-41MAAU or PAR-SL101A-E is required for each setting.

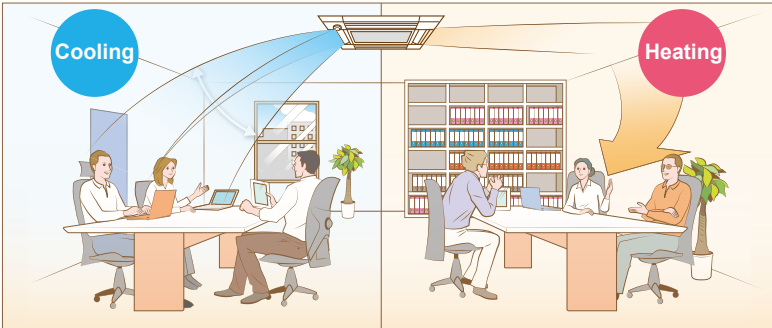
Seasonal airflow*

<When cooling>

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

<When heating>

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



*PAR-41MAAU is required for each setting.

Ceiling cassette type **R32** **R454B**

4-way airflow type **PLFY-EM NEMU-A**



Model		PLFY-EM06NEMU-A		PLFY-EM08NEMU-A		PLFY-EM12NEMU-A		PLFY-EM15NEMU-A			
Power source		1-phase 208-230 V 60Hz									
Cooling capacity	*1	BTU/h	6,000	8,000	12,000	15,000					
		kW	1.8	2.4	3.5	4.4					
	Power input	kW	0.02	0.03	0.03	0.03					
		Current input	A	0.19	0.31	0.31	0.31				
Heating capacity	*2	BTU/h	6,700	9,000	13,500	17,000					
		kW	2.0	2.7	4.0	5.0					
	Power input	kW	0.02	0.02	0.02	0.02					
		Current input	A	0.14	0.26	0.26	0.26				
External finish		Galvanized steel sheet									
External dimension H × W × D	inch	10-3/16 × 33-1/16 × 33-1/16		10-3/16 × 33-1/16 × 33-1/16		10-3/16 × 33-1/16 × 33-1/16		10-3/16 × 33-1/16 × 33-1/16			
	mm	258 × 840 × 840		258 × 840 × 840		258 × 840 × 840		258 × 840 × 840			
Net weight		lbs (kg)	46 (21)		46 (21)		46 (21)		46 (21)		
Grille	Model	PLP-41EAEU		PLP-41EAEU		PLP-41EAEU		PLP-41EAEU			
	External finish	MUNSELL (1.0Y 9.2/0.2)									
	Dimension	in.	1-9/16 × 37-13/32 × 37-13/32		1-9/16 × 37-13/32 × 37-13/32		1-9/16 × 37-13/32 × 37-13/32		1-9/16 × 37-13/32 × 37-13/32		
	H × W × D	mm	40 × 950 × 950		40 × 950 × 950		40 × 950 × 950		40 × 950 × 950		
	Net weight	lbs (kg)	11 (5)		11 (5)		11 (5)		11 (5)		
Heat exchanger		Cross fin									
FAN	Type × Quantity		Turbo fan × 1		Turbo fan × 1		Turbo fan × 1		Turbo fan × 1		
	External static press.	in.WG	0 (208V)		0 (208V)		0 (208V)		0 (208V)		
		Pa	0		0		0		0		
		in.WG	0 (230V)		0 (230V)		0 (230V)		0 (230V)		
		Pa	0		0		0		0		
	Motor Type		DC motor								
	Motor output	kW	0.05		0.05		0.05		0.05		
	Driving mechanism		Direct-driven								
	Air flow rate			(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)	
		cfm	300 - 424 - 459 - 494		494 - 530 - 565 - 600		494 - 530 - 565 - 600		530 - 547 - 565 - 600		
m³/min		8.5 - 12 - 13 - 14		14 - 15 - 16 - 17		14 - 15 - 16 - 17		15 - 15.5 - 16 - 17			
Sound pressure level (measured in anechoic room)	dB <A>	142 - 200 - 217 - 233		233 - 250 - 267 - 283		233 - 250 - 267 - 283		250 - 258 - 267 - 283			
		(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)			
		19 - 23 - 25 - 27		27 - 29 - 30 - 31		27 - 29 - 30 - 31		28 - 29 - 30 - 31			
Insulation material		PS									
Air filter		PP honeycomb (long life filter, anti-bacterial type)									
Protection device		Fuse									
Refrigerant control device		LEV									
Connectable outdoor unit		R32/R454B CITY MULTI									
Refrigerant piping diameter	Liquid	in.(mm)	1/4 (6.35) Flare		1/4 (6.35) Flare		1/4 (6.35) Flare		1/4 (6.35) Flare		
	Gas	in.(mm)	1/2 (12.7) Flare		1/2 (12.7) Flare		1/2 (12.7) Flare		1/2 (12.7) Flare		
Field drain pipe size		in.(mm)	O.D. 1-1/4(32)		O.D. 1-1/4(32)		O.D. 1-1/4(32)		O.D. 1-1/4(32)		
Optional parts	Air outlet shutter plate	PAC-SJ37SP-E		PAC-SJ37SP-E		PAC-SJ37SP-E		PAC-SJ37SP-E			
	High efficiency filter element	PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E			
	Multi-function casement	PAC-SJ41TM-E		PAC-SJ41TM-E		PAC-SJ41TM-E		PAC-SJ41TM-E			
	Wireless signal receiver	PAR-SR4LU-E		PAR-SR4LU-E		PAR-SR4LU-E		PAR-SR4LU-E			
	External heater adapter	PAC-YU25HT		PAC-YU25HT		PAC-YU25HT		PAC-YU25HT			
	Duct flange for fresh air intake	PAC-SH65OF-E		PAC-SH65OF-E		PAC-SH65OF-E		PAC-SH65OF-E			
	Alarm Kit	PAC-SL54AL-E		PAC-SL54AL-E		PAC-SL54AL-E		PAC-SL54AL-E			
Remarks		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.									

Notes:

- Nominal cooling conditions
Indoor:80°FDB/67°FWB(26.7°CDB/19.4°CWB), Outdoor:95°FDB(35°CDB)
Pipe length:25ft.(7.6m), Level difference:0ft.(0m)
- Nominal heating conditions
Indoor:70°FDB(21.1°CDB), Outdoor:47°FDB/43°FWB(8.3°CDB/6.1°CWB)
Pipe length:25ft.(7.6m), Level difference:0ft.(0m)

Unit converter

BTU/h	=kW × 3.412
cfm	=m³/min × 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Ceiling cassette type **R32** **R454B**

4-way airflow type **PLFY-EM NEMU-A**



Model			PLFY-EM18NEMU-A	PLFY-EM24NEMU-A	PLFY-EM30NEMU-A	PLFY-EM36NEMU-A	PLFY-EM48NEMU-A
Power source			1-phase 208-230 V 60Hz				
Cooling capacity	*1	BTU/h	18,000	24,000	30,000	36,000	48,000
		kW	5.3	7.0	8.8	10.6	14.1
	Power input	kW	0.04	0.04	0.04	0.07	0.11
		Current input	A	0.43	0.43	0.45	0.73
Heating capacity	*2	BTU/h	20,000	27,000	34,000	40,000	54,000
		kW	5.9	7.9	10.0	11.7	15.8
	Power input	kW	0.04	0.04	0.04	0.07	0.11
		Current input	A	0.38	0.38	0.40	0.68
External finish			Galvanized steel sheet				
External dimension H × W × D		inch	11-3/4 × 33-1/16 × 33-1/16	11-3/4 × 33-1/16 × 33-1/16	11-3/4 × 33-1/16 × 33-1/16	11-3/4 × 33-1/16 × 33-1/16	11-3/4 × 33-1/16 × 33-1/16
		mm	298 × 840 × 840	298 × 840 × 840	298 × 840 × 840	298 × 840 × 840	298 × 840 × 840
Net weight		lbs (kg)	57 (26)	57 (26)	57 (26)	57 (26)	57 (26)
Grille	Model		PLP-41EAEU	PLP-41EAEU	PLP-41EAEU	PLP-41EAEU	PLP-41EAEU
	External finish		MUNSELL (1.0Y 9.2/0.2)				
	Dimension H × W × D	in.	1-9/16 × 37-13/32 × 37-13/32	1-9/16 × 37-13/32 × 37-13/32	1-9/16 × 37-13/32 × 37-13/32	1-9/16 × 37-13/32 × 37-13/32	1-9/16 × 37-13/32 × 37-13/32
		mm	40 × 950 × 950	40 × 950 × 950	40 × 950 × 950	40 × 950 × 950	40 × 950 × 950
	Net weight	lbs (kg)	11 (5)	11 (5)	11 (5)	11 (5)	11 (5)
Heat exchanger			Cross fin				
FAN	Type × Quantity		Turbo fan × 1	Turbo fan × 1	Turbo fan × 1	Turbo fan × 1	Turbo fan × 1
	External static press.	in.WG	0 (208V)	0 (208V)	0 (208V)	0 (208V)	0 (208V)
		Pa	0	0	0	0	0
		in.WG	0 (230V)	0 (230V)	0 (230V)	0 (230V)	0 (230V)
		Pa	0	0	0	0	0
	Motor Type		DC motor				
	Motor output	kW	0.12	0.12	0.12	0.12	0.12
	Driving mechanism		Direct-driven				
	Air flow rate	(Low-Mid2-Mid1-High)		(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)
		cfm	636 - 671 - 742 - 812	636 - 671 - 742 - 812	636 - 706 - 777 - 812	777 - 883 - 989 - 1,095	777 - 953 - 1,095 - 1,236
m³/min		18 - 19 - 21 - 23	18 - 19 - 21 - 23	18 - 20 - 22 - 23	22 - 25 - 28 - 31	22 - 27 - 31 - 35	
Sound pressure level (measured in anechoic room)		(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)	(Low-Mid2-Mid1-High)	
dB <A>		28 - 30 - 32 - 34	28 - 30 - 32 - 34	28 - 31 - 33 - 35	35 - 37 - 39 - 41	36 - 39 - 42 - 45	
Insulation material			PS				
Air filter			PP honeycomb (long life filter, anti-bacterial type)				
Protection device			Fuse				
Refrigerant control device			LEV				
Connectable outdoor unit			R32/R454B CITY MULTI				
Refrigerant piping diameter	Liquid	in.(mm)	1/4 (6.35) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare
	Gas	in.(mm)	1/2 (12.7) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare
Field drain pipe size		in.(mm)	O.D. 1-1/4(32)	O.D. 1-1/4(32)	O.D. 1-1/4(32)	O.D. 1-1/4(32)	O.D. 1-1/4(32)
Optional parts	Air outlet shutter plate		PAC-SJ37SP-E	PAC-SJ37SP-E	PAC-SJ37SP-E	PAC-SJ37SP-E	PAC-SJ37SP-E
	High efficiency filter element		PAC-SH59KF-E	PAC-SH59KF-E	PAC-SH59KF-E	PAC-SH59KF-E	PAC-SH59KF-E
	Multi-function casement		PAC-SJ41TM-E	PAC-SJ41TM-E	PAC-SJ41TM-E	PAC-SJ41TM-E	PAC-SJ41TM-E
	Wireless signal receiver		PAR-SR4LU-E	PAR-SR4LU-E	PAR-SR4LU-E	PAR-SR4LU-E	PAR-SR4LU-E
	External heater adapter		PAC-YU25HT	PAC-YU25HT	PAC-YU25HT	PAC-YU25HT	PAC-YU25HT
	Duct flange for fresh air intake		PAC-SH65OF-E	PAC-SH65OF-E	PAC-SH65OF-E	PAC-SH65OF-E	PAC-SH65OF-E
	Alarm Kit		PAC-SL54AL-E	PAC-SL54AL-E	PAC-SL54AL-E	PAC-SL54AL-E	PAC-SL54AL-E
Remarks			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.				

Notes:

- Nominal cooling conditions
Indoor:80°FDB/67°FWB(26.7°CDB/19.4°CWB), Outdoor:95°FDB(35°CDB)
Pipe length:25ft.(7.6m), Level difference:0ft.(0m)
- Nominal heating conditions
Indoor:70°FDB(21.1°CDB), Outdoor:47°FDB/43°FWB(8.3°CDB/6.1°CWB)
Pipe length:25ft.(7.6m), Level difference:0ft.(0m)

Unit converter

BTU/h	=kW × 3.412
cfm	=m³/min × 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation



Ceiling cassette type 4-way airflow type



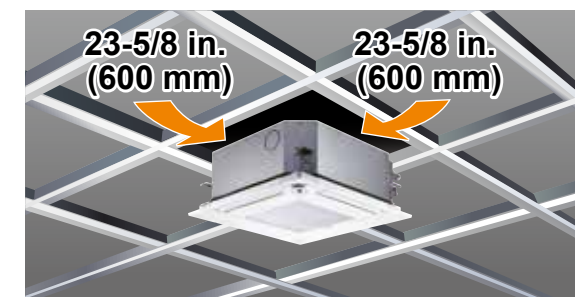
Ceiling cassette type **R32** **R454B** 4-way airflow type **PLFY-M NFMU-A**



The compact size offers an ideal fit to grid system ceilings (23-5/8 in. (600 mm) × 23-5/8 in. (600 mm)) and provides 4-way airflows despite its size.

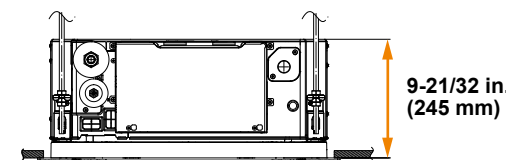
Beautiful square design

The square design matches 2 × 2 (23-5/8 in. (600 mm) × 23-5/8 in. (600 mm)) ceiling construction specifications. Direct line-based square design enables designs of system ceiling to match the design of direct line type illuminations, thereby creating a beautiful space.



Above-ceiling height of 9-21/32 in. (245 mm)

The above-ceiling height of 9-21/32 in. (245 mm) is top class in the industry* and fits into narrow ceiling spaces.



* As of Aug 2015, among compact 4-way cassettes for system ceilings. (In-company survey)

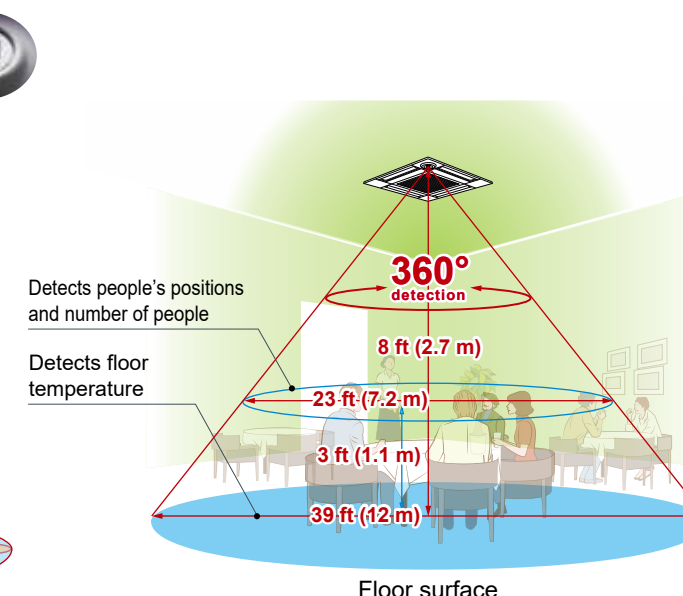
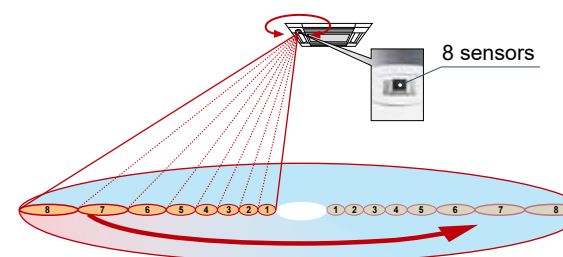
Compact & light-weight design

The panel weighs 5.3 lbs (2.4 kg), and the main unit weighs 28.9 lbs (13.1 kg) (M05, M08 models) or 31.3 lbs (14.2 kg) (M12, M15 and M18 models).

3D i-see Sensor

• Highly accurate people detection

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

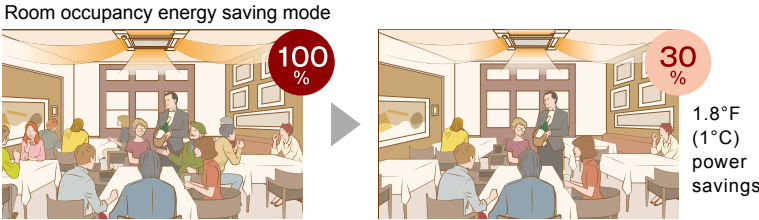


*In case of an 8 ft (2.7m) ceiling

- Detects number of people

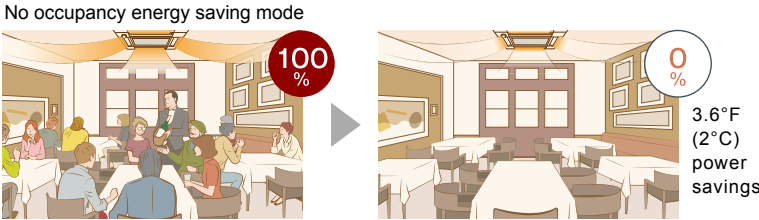
Room occupancy energy saving mode

The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time to save air-conditioning power. Air-conditioning power equivalent to 1.8°F (1°C) is saved during both cooling and heating operations at an occupancy rate of approximately 30%. The temperature is controlled according to the number of people.



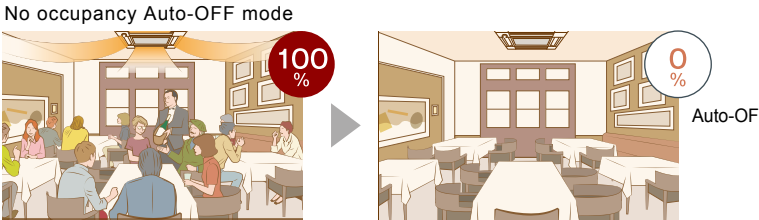
No occupancy energy saving mode

When 3D i-see Sensor detects no one in the room, the system is switched to a preset power-saving mode. If the room remains unoccupied for more than 60 minutes, air-conditioning power equivalent to 3.6°F (2°C) is saved during both cooling and heating operations. This contributes to preventing waste in terms of heating and cooling.



No occupancy Auto-OFF mode

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



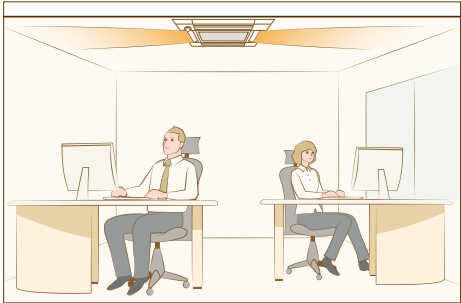
*No occupancy Auto-OFF mode is not available when multiple indoor units are operated by a single MA remote controller.

*PAR-41MAAU is required for each setting.

- Detects people's positions

Direct/indirect settings*

Some people do not like the feeling of wind, while others want to be warm from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, each vane can be set to block or not block the wind.



*PAR-41MAAU or PAR-SL101A-E is required for each setting.

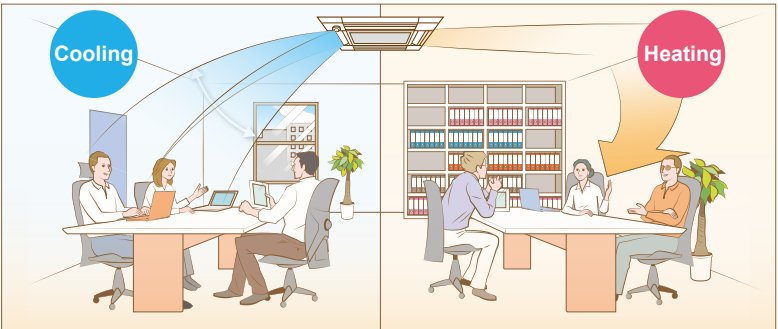
Seasonal airflow*

<When cooling>

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

<When heating>

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



*PAR-41MAAU is required for each setting.

Ceiling cassette type **R32** **R454B**
4-way airflow type **PLFY-M NFMU-A**



Model			PLFY-M05NFMU-A	PLFY-M08NFMU-A	PLFY-M12NFMU-A	PLFY-M15NFMU-A	PLFY-M18NFMU-A
Power source			1-phase 208-230 V 60Hz				
Cooling capacity (Nominal)	*1	BTU/h	5,000	8,000	12,000	15,000	18,000
		kW	1.4	2.3	3.5	4.4	5.3
	Power input	kW	0.02	0.02	0.02	0.03	0.04
		Current input	A	0.19	0.22	0.23	0.28
Heating capacity	*2	BTU/h	5,600	9,000	13,500	17,000	20,000
		kW	1.6	2.6	4.0	5.0	5.9
	Power input	kW	0.02	0.02	0.02	0.03	0.04
		Current input	A	0.14	0.17	0.18	0.23
External finish			Galvanized steel sheet				
External dimension H × W × D		inch	8-3/16 × 22-7/16 × 22-7/16				
		mm	208 × 570 × 570				
Net weight		lbs (kg)	28.9 (13.1)		31.3 (14.2)		
Decoration panel	Model		SLP-18FAU				
	External finish		MUNSELL (1.0Y 9.2/0.2)				
	Dimension H × W × D	in.	13/32 × 24-19/32 × 24-19/32				
		mm	10 × 625 × 625				
	Net weight		lbs (kg)	5.3 (2.4)			
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
FAN	Type × Quantity		Turbo fan × 1				
	External static press.	in.WG	0				
		Pa	0				
	Motor Type		DC motor				
	Motor output		0.05				
	Driving mechanism		Direct-driven				
	Air flow rate (Low-Mid-High)	cfm	230-265-280	230-280-315	245-280-335	265-315-390	315-390-460
		m³/min	6.5-7.5-8.0	6.5-8.0-9.0	7.0-8.0-9.5	7.5-9.0-11.0	9.0-11.0-13.0
		L/s	108-133-150	108-133-150	117-133-158	125-150-183	150-183-217
Sound pressure level (Low-Mid-High) (measured in anechoic room)		dB <A>	26-30-33	26-30-33	26-30-34	28-33-39	33-39-43
Insulation material			PS				
Air filter			PP honeycomb fabric (long life type)				
Protection device			Fuse				
Refrigerant control device			LEV				
Connectable outdoor unit			R32/R454B CITY MULTI				
Refrigerant piping diameter	Liquid	in.(mm)	1/4 (6.35) Flare				
	Gas	in.(mm)	1/2 (12.7) Flare				
Field drain pipe size			O.D.1-1/4 (32) (PVC pipe VP-25 connectable)				
Optional parts	Decoration panel		SLP-18FAU				
	3D i-see Sensor panel		SLP-18FAEU	SLP-18FAEU	SLP-18FAEU	SLP-18FAEU	SLP-18FAEU
	3D i-see Sensor corner panel		PAC-SF1ME-E	PAC-SF1ME-E	PAC-SF1ME-E	PAC-SF1ME-E	PAC-SF1ME-E
	Wireless signal receiver		PAR-SF9FA-E	PAR-SF9FA-E	PAR-SF9FA-E	PAR-SF9FA-E	PAR-SF9FA-E
	Alarm Kit		PAC-SL54AL-E	PAC-SL54AL-E	PAC-SL54AL-E	PAC-SL54AL-E	PAC-SL54AL-E
Remarks			* PLYF-M-NFMU should be used with SLP-18FAU/SLP-18FAEU. * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.				

Notes:

1.Nominal cooling conditions
Indoor:80°FDB/67°F WB(26.7°CDB/19.4°CWB), Outdoor:95°FDB(35°CDB)
Pipe length:25ft.(7.6m), Level difference:0ft.(0m)
2.Nominal heating conditions
Indoor:70°FDB(21.1°CDB), Outdoor:47°FDB/43°F WB(8.3°CDB/6.1°CWB)
Pipe length:25ft.(7.6m), Level difference:0ft.(0m)

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation



Ceiling cassette type 1-way airflow type



Ceiling cassette type 1-way airflow type

PMFY-M NCMU-A



Recommended for installation at the edges of a room.
A lightweight body ensures excellent workability.

Ceiling mounted installation

Installing a 1-way airflow type unit in a room creates a more spacious feel that enhances room comfort. This overhead format is also an excellent solution when lighting equipment is installed at the center of the room and fixtures such as book shelves are mounted on wall surfaces.



Compact size for smooth installation and maintenance

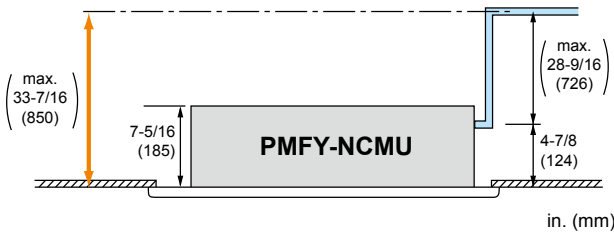
The body size of the unit has been standardized for all models at 44-1/8in. (1121mm) for easy installation. Body weight is only M06-M08 →35.3lbs (16.0kg) M12-M18→36.0lbs(16.3kg) for the main unit and 8.2lbs (3.7kg) for the panel, making this unit one of the lightest in the industry.

Dual Barrier Coating

Dual Barrier Coating prevents dust and greasy dirt from entering the unit, and is strategically applied to the line flow fan in the PMFY.

Drain pump

The drain can be positioned anywhere up to 33-7/16 (850mm) from the ceiling surface.



Line up

The lineup has been expanded to include the 18,000btu/h model.

	06	08	12	15	18
Conventional model	●	●	●	●	N/A
▼					
	06	08	12	15	18
New model	●	●	●	●	●

Ceiling cassette type
1-way airflow type **PMFY-M NCMU-A**

Model			PMFY-M06NCMU-A	PMFY-M08NCMU-A	PMFY-M12NCMU-A	PMFY-M15NCMU-A	PMFY-M18NCMU-A	
Power source			1-phase 208-230 V 60Hz					
Cooling capacity (Nominal)	*1	BTU/h	6,000	8,000	12,000	15,000	18,000	
	*1	kW	1.8	2.3	3.5	4.4	5.3	
	Power input		kW	0.02	0.03	0.03	0.04	0.05
	Current input		A	0.29	0.32	0.35	0.44	0.58
Heating capacity (Nominal)	*2	BTU/h	6,700	9,000	13,500	17,000	20,000	
	*2	kW	2.0	2.6	4.0	5.0	5.9	
	Power input		kW	0.02	0.03	0.03	0.04	0.05
	Current input		A	0.24	0.27	0.30	0.39	0.53
External finish			-					
External dimension H × W × D		inch	7-5/16 x 44-1/8 x 14-3/16					
		mm	185 x 1121 x 360					
Net weight		lbs (kg)	35.3 (16.0)			36 (16.3)		
Decoration panel	Model		MLP-449WU-U1/MLP-449WCA-CA1					
	External finish		MUNSELL (0.98Y 8.99/0.63)					
	Dimension	in.	15/16 x 47-1/4 x 16-11/16					
	H × W × D	mm	24 x 1200 x 424					
	Net weight	lbs (kg)	8.2(3.7)					
Heat exchanger			Cross fin					
FAN	Type × Quantity		Line flow fan x 1					
	External static press.	in.WG	0					
		Pa	0					
	Motor Type		DC Blush-less Motor					
	Motor output		0.030					
	Driving mechanism		Direct-driven					
	Air flow rate (Low-Mid-High)	cfm	195-205-215-225	195-225-255-285	235-260-285-310	235-275-315-360	235-300-360-420	
		m³/min	5.6-5.9-6.2-6.5	5.6-6.4-7.3-8.1	6.7-7.4-8.1-8.8	6.7-7.9-9.0-10.2	6.7-8.5-10.2-12.0	
		L/s	93-98-103-108	93-106-121-135	111-123-135-146	111-131-150-170	111-141-170-200	
Sound pressure level (Low-Mid-High) (measured in anechoic room)		dB <A>	25-27-28-29	25-29-32-35	29-32-35-37	29-34-38-41	29-36-41-45	
Insulation material			PS foam, Polyethylene foam					
Air filter			PP honeycomb					
Protection device			Fuse					
Refrigerant control device			LEV					
Connectable outdoor unit			R32/R454B CITY MULTI					
Refrigerant	Liquid	in.(mm)	1/4 (6.35) Flare					
	Gas	in.(mm)	1/2 (12.7) Flare					
Field drain pipe size		in.(mm)	O.D. 1 (26)					
Optional parts	External heater adapter		PAC-YU25HT					
Remarks			* Details on foundation work,insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.					

Notes:

- 1.Nominal cooling conditions
Indoor : 80degF D.B. / 67degF W.B.(26.7degC D.B. / 19.4degC W.B.)
Outdoor : 95degF D.B.(35degC D.B.)
Pipe length : 25 ft. (7.6 m)
Level difference : 0 ft. (0 m)
- 2.Nominal heating conditions
Indoor : 70degF D.B.(21.1degC D.B.)
Outdoor : 47degF D.B. / 43degF W.B.(8.3degC D.B. / 6.1degC W.B.)
Pipe length : 25 ft. (7.6 m)
Level difference : 0 ft. (0 m)

Unit converter	
kcal/h	= kW x 860
BTU/h	=kW x 3,412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation



Ceiling concealed type



Ceiling concealed type

Low static pressure type

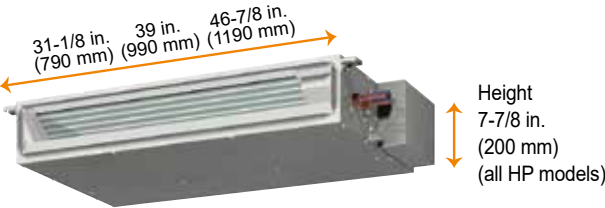
PEFY-P NMSU-E



A thin body 7-7/8 in. (200 mm) in height and a maximum external static pressure rating of 0.20 in.WG (50 Pa) provide significant flexibility of design and allow installation in narrow ceiling spaces.
The lineup consists of models up to P24 with the same height.

Compact design with a height of no more than 7-7/8 in. (200 mm) (all HP models) and widths of 31-1/8 in. (790 mm) (P06-P12).

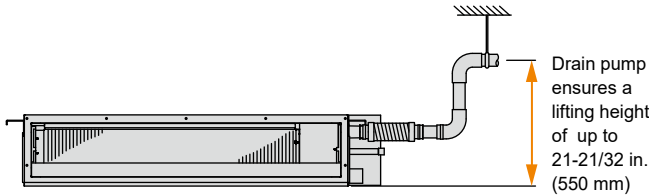
The thin body with a height of no more than 7-7/8 in. (200 mm) (all HP models) allows installation in a ceiling with small cavity space.



PEFY-P VMS1(L)-E	P15	P20	P25	P32	P40	P50	P63
Height	in. (mm)	7-7/8 (200)					
Width	in. (mm)	31-1/8 (790)			39 (990)	46-7/8 (1190)	

Drain pump

The drain pump is equipped as a standard feature and eliminates the need for a drain trap. It has a maximum lifting height of 21-21/32 in. (550 mm).



Low noise design

Owing to a centrifugal fan and coil, low noise operation is realized. It is best suited to places where quietness is required.

- Sound pressure level (standard static pressure) at 0.06 in.WG (15 Pa)

		dB(A)						
Sound pressure level	Capacity		P06	P08	P12	P15	P18	P24
	Fan Speed	High	28	30	35	33	37	40
		Mid	24	26	28	30	34	35
		Low	22	23	23	28	30	30

Demonstrates a maximum external static pressure of 0.20 in.WG (50 Pa) despite its compact design

External static pressure can be selected from 0.02, 0.06, 0.14, 0.20 in.WG (5, 15, 35, 50 Pa) (set to 15 Pa at the time of factory shipment).

Ceiling concealed type

Low static pressure type

R32 R454B

PEFY-M NMSU-A



Model		PEFY-M06NMSU-A	PEFY-M08NMSU-A	PEFY-M12NMSU-A	PEFY-M15NMSU-A	PEFY-M18NMSU-A	PEFY-M24NMSU-A		
Power source		1-phase 208/230 V 60 Hz							
Cooling capacity	*1	BTU/h	6,000	8,000	12,000	15,000	24,000		
	*1	kW	1.8	2.3	3.5	4.4	7.0		
	*2	Power input	kW	0.032	0.044	0.064	0.052	0.082	0.102
	*2	Current input	A	0.37/0.36	0.49/0.44	0.67/0.63	0.54/0.50	0.75/0.71	0.87/0.81
Heating capacity	*3	BTU/h	6,700	9,000	13,500	17,000	20,000	27,000	
	*3	kW	2.0	2.6	4.0	5.0	5.9	7.9	
	*2	Power input	kW	0.030	0.042	0.062	0.050	0.080	0.100
	*2	Current input	A	0.32/0.31	0.44/0.39	0.62/0.58	0.49/0.45	0.70/0.66	0.82/0.76
External finish		Galvanized steel plate							
External dimension HxWxD	inch	7-7/8 x 31-1/8 x 27-9/16				7-7/8 x 39 x 27-9/16	7-7/8 x 46-7/8 x 27-9/16		
	mm	200 x 790 x 700				200 x 990 x 700	200 x 1,190 x 700		
Net weight	lbs (kg)	42 (19)	43 (19.5)	45 (20)	53 (24)	53 (24)	60 (27)		
Heat exchanger		Cross fin (Aluminum fin and copper tube)							
FAN	Type x Quantity	Sirocco fan x 2			Sirocco fan x 3		Sirocco fan x 4		
	External static press.	in.WG	<0.02> - 0.06 - <0.14> - <0.20>						
		Pa	<5> - 15 - <35> - <50>						
	Motor Type	DC motor							
	Motor output	kW	0.096						
	Driving mechanism	Direct-driven by motor							
	Air flow rate	(Low-Mid-High)							
		cfm	176 - 212 - 247	194 - 247 - 317	211 - 282 - 370	282 - 335 - 388	353 - 441 - 529	423 - 565 - 706	
		m³/min	5.0 - 6.0 - 7.0	5.5 - 7.0 - 9.0	6.0 - 8.0 - 10.5	8.0 - 9.5 - 11.0	10.0 - 12.5 - 15.0	12.0 - 16.0 - 20.0	
	L/s	83 - 100 - 117	92 - 117 - 150	100 - 133 - 175	133 - 158 - 183	167 - 208 - 250	200 - 267 - 333		
Sound pressure level (measured in anechoic room) *2	dB <A>	22-24-28	23-26-30	23-28-34	28-30-33	30-34-37	30-35-40		
Insulation material		Polystyrene foam, Polyethylene foam, Urethane foam							
Air filter		PP honeycomb fabric.							
Protection device		Fuse							
Refrigerant control device		LEV							
Connectable outdoor unit		R32/R454B CITY MULTI							
Diameter of refrigerant pipe	Liquid	inch (mm)	1/4 (6.35) Brazed				3/8 (9.52) Brazed		
	Gas	inch (mm)	1/2 (12.7) Brazed				5/8 (15.88) Brazed		
Field drain pipe size		inch (mm)	O.D. 1-1/4 (32)						
Optional parts	External heater adapter		PAC-YU25HT						
Remarks		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Man * Due to continuing improvement, above specifications may be subject to change without notice.							

Notes:

- Nominal cooling conditions
Indoor: 80°F DB./67°F WB. (26.7°C DB./19.4°C WB.), Outdoor: 95°F DB. (35°C DB.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions
Indoor: 70°F DB. (21.1°C DB.), Outdoor: 47°F DB./43°F WB. (8.3°C DB./6.1°C WB.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- The factory setting of external static pressure is shown without < >.
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Auxiliary devices which may be a potential ignition source shall not be installed in the duct work.
Examples of such potential ignition sources are hot surfaces with a temperature exceeding 700°C [1292°F] and electric switching devices.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m ³ /min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Ceiling concealed type Medium static pressure type

PEFY-P NMAU-E4

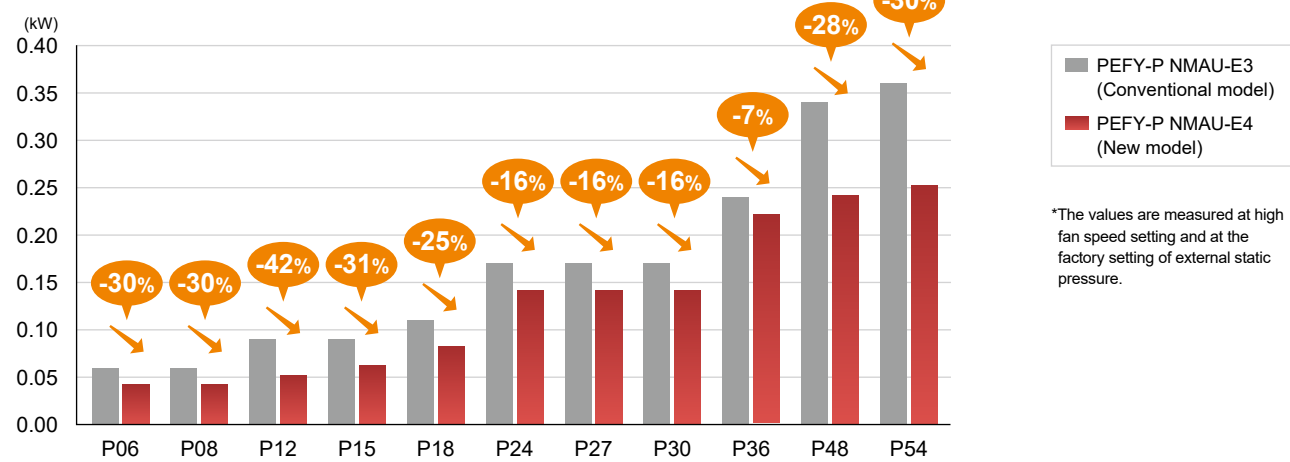


A wide range of external static pressure and the slim 9-7/8 in. (250 mm) hight body provide design flexibility for narrow ceiling spaces. An improved air pathway structure contributing to less power consumption.

Less power consumption

The shape of fan wing and casing is improved to provides more smooth air flow. Besides, the drain pump motor is changed from AC motor to high-efficient DC motor. Operation efficiency is increased by the improvements in the air flow and motor, which realizes up to 42% reduction in energy consumption (P12).

• Power consumption in cooling operation (kW)



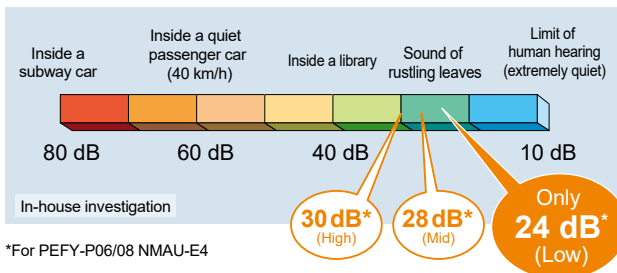
Quiet operation

Fan speed setting is available from Low-Mid-High^{*1}. The sound pressure level^{*2} of P06/08 model, which is the quietest model among the new series, is as low as 24 dB at the low fan speed setting. Quiet operation contributes to a peaceful indoor environment.

^{*1} When fan speed setting is low, the cooling/heating capacity is subject to reduce.

^{*2} The values are measured in fan mode and at the factory setting of external static pressure. Operation noise may increase due to the installation environment or the operation status.

• Noise Level



External static pressure is settable up to 150 Pa.

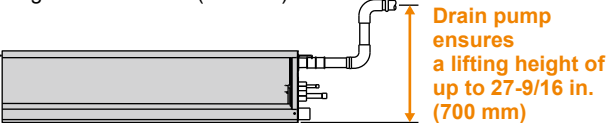
Settings range to a maximum of 150 Pa.

• External static pressure setting

Series	06	08	12	15	18	24	27	30	36	48	54
PEFY-P NMAU-E4	35/50/70/100/150 Pa										

Drain pump

The drain pump is equipped as a standard feature and eliminates the need for a drain trap. It has maximum lifting height of 27-9/16 in. (700 mm).



Analog input

Analog input allows the unit to control the fan speed setting in conjunction with damper conditions.

Ceiling concealed type Medium static pressure type

R32 R454B

PEFY-M NMAU-A



Model			PEFY-M06NMAU-A	PEFY-M08NMAU-A	PEFY-M12NMAU-A	PEFY-M15NMAU-A	PEFY-M18NMAU-A	PEFY-M24NMAU-A
Power source			1-phase 208/230 V 60 Hz					
Cooling capacity	*1	BTU/h	6,000	8,000	12,000	15,000	18,000	24,000
	*1	kW	1.8	2.3	3.5	4.4	5.3	7.0
	*2	Power input	kW	0.042	0.042	0.052	0.062	0.142
	*2	Current input	A	0.42/0.38	0.42/0.38	0.56/0.51	0.64/0.58	1.24/1.12
Heating capacity	*3	BTU/h	6,700	9,000	13,500	17,000	20,000	27,000
	*3	kW	2.0	2.6	4.0	5.0	5.9	7.9
	*2	Power input	kW	0.040	0.040	0.050	0.060	0.140
	*2	Current input	A	0.42/0.38	0.42/0.38	0.56/0.51	0.64/0.58	1.24/1.12
External finish			Galvanized steel plate					
External dimension		inch	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8
H x W x D		mm	250 x 700 x 732	250 x 700 x 732	250 x 700 x 732	250 x 900 x 732	250 x 1,100 x 732	250 x 1100 x 732
Net weight		lbs(kg)	48 (21.5)	48 (21.5)	48 (21.5)	58(26)	67 (30)	67(30)
Heat exchanger			Cross fin(Aluminium fin and copper tube)					
FAN	Type x Quantity		Sirocco fan x 1			Sirocco fan x 2		
	External static press.	in.WG	<0.14> - 0.20 - <0.28> - <0.40> - <0.60>					
		Pa	<35> - 50 - <70> - <100> - <150>					
	Motor Type		DC motor					
	Motor output		kW			0.121		
	Driving mechanism		Direct-driven by motor					
	Airflow rate		(Low-Mid-High)					
cfm			212 - 265 - 300	212 - 265 - 300	265 - 318 - 371	353 - 424 - 494	618 - 742 - 883	618 - 742 - 883
		m³/min	6.0 - 7.5 - 8.5	6.0 - 7.5 - 8.5	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0	17.5 - 21.0 - 25.0	17.5 - 21.0 - 25.0
		L/s	100 - 125 - 142	100 - 125 - 142	125 - 150 - 175	167 - 200 - 233	292 - 350 - 417	292 - 350 - 417
Sound pressure level (measured in anechoic room) *2			(Low-Mid-High)					
dB <A>			24-28-30	24-28-30	26-30-34	27-31-34	31-35-39	31-35-39
Insulation material			EPS, Polyethylene foam, Urethane foam					
Air filter			PP honeycomb fabric.					
Protection device			Fuse					
Refrigerant control device			LEV					
Connectable outdoor unit			R32/R454B CITY MULTI					
Diameter of refrigerant pipe		Liquid inch (mm)	1/4 (6.35)Brazed					3/8 (9.52)Brazed
refrigerant pipe		Gas inch (mm)	1/2 (12.7)Brazed					5/8 (15.88)Brazed
Field drain pipe size		inch (mm)	O.D. 1-1/4 (32)					
Optional parts	External heater adapter		PAC-KE91TB-E			PAC-KE92TB-E		PAC-KE93TB-E
	Filter box							
Remarks			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.					

Notes:

- Nominal cooling conditions
Indoor: 80°F.D.B./67°F.W.B. (26.7°C.D.B./19.4°C.W.B.), Outdoor: 95°F.D.B. (35°C.D.B.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions
Indoor: 70°F.D.B. (21.1°C.D.B.), Outdoor: 47°F.D.B./43°F.W.B. (8.3°C.D.B./6.1°C.W.B.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- The factory setting of external static pressure is shown without < >.
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Auxiliary devices which may be a potential ignition source shall not be installed in the duct work.
Examples of such potential ignition sources are hot surfaces with a temperature exceeding 700°C [1292°F] and electric switching devices.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Model		PEFY-M27NMAU-A		PEFY-M30NMAU-A		PEFY-M36NMAU-A		PEFY-M48NMAU-A		PEFY-M54NMAU-A	
Power source		1-phase 208/230 V 60 Hz									
Cooling capacity	*1	BTU/h	27,000	30,000	36,000	48,000	54,000				
	*1	kW	7.9	8.8	10.6	14.1	15.8				
	*2	Power input	kW	0.142	0.222	0.222	0.242	0.252			
	*2	Current input	A	1.24/1.12	2.01/1.82	2.01/1.82	2.06/1.87	2.29/2.07			
Heating capacity	*3	BTU/h	30,000	34,000	40,000	54,000	60,000				
	*3	kW	8.8	10.0	11.7	15.8	17.6				
	*2	Power input	kW	0.140	0.220	0.220	0.240	0.250			
	*2	Current input	A	1.24/1.12	2.01/1.82	2.01/1.82	2.06/1.87	2.29/2.07			
External finish		Galvanized steel plate									
External dimension		inch	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 63 x 28-7/8				
H x W x D		mm	250 x 1,100 x 732	250 x 1,400 x 732	250 x 1,400 x 732	250 x 1,400 x 732	250 x 1,600 x 732				
Net weight		lbs(kg)	67 (30)	84 (38)	84 (38)	86 (39)	93 (42)				
Heat exchanger		Cross fin(Aluminium fin and copper tube)									
FAN	Type x Quantity		Sirocco fan x 2		Sirocco fan x 3						
	External static press.	in.WG	<0.14> - 0.20 - <0.28> - <0.40> - <0.60>								
		Pa	<35> - 50 - <70> - <100> - <150>								
	Motor Type		DC motor								
	Motor output		kW	0.121	0.3	0.3	0.3	0.3			
	Driving mechanism		Direct-driven by motor								
	Airflow rate		(Low-Mid-High)								
			cfm	618 - 742 - 883	883 - 1,077 - 1,271	883 - 1,077 - 1,271	918 - 1,112 - 1,306	989 - 1,201 - 1,413			
			m³/min	17.5 - 21.0 - 25.0	25.0 - 30.5 - 36.0	25.0 - 30.5 - 36.0	26.0 - 31.5 - 37.0	28.0 - 34.0 - 40.0			
		L/s	292 - 350 - 417	417 - 508 - 600	417 - 508 - 600	433 - 525 - 617	467 - 567 - 667				
Sound pressure level (measured in anechoic room) *2		dB <A>	31-35-39	35-39-43	35-39-43	35-40-44	34-38-42				
Insulation material		EPS, Polyethylene foam, Urethane foam									
Air filter		PP honeycomb fabric.									
Protection device		Fuse									
Refrigerant control device		LEV									
Connectable outdoor unit		R32/R454B CITY MULTI									
Diameter of refrigerant pipe	Liquid	inch (mm)	3/8 (9.52)Brazed								
	Gas	inch (mm)	5/8 (15.88)Brazed								
Field drain pipe size		inch (mm)	O.D.1-1/4 (32)								
Optional parts	External heater adapter		PAC-YU25HT								
	Filter box		PAC-KE93TB-E	PAC-KE94TB-E	PAC-KE94TB-E	PAC-KE94TB-E	PAC-KE95TB-E				
Remarks		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.									

Notes:

- 1.Nominal cooling conditions
Indoor: 80°FDB/67°FWB. (26.7°CDB/19.4°CWB.), Outdoor: 95°FDB. (35°CDB.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
2.The values are measured at the factory setting of external static pressure.
- 3.Nominal heating conditions
Indoor: 70°FDB. (21.1°CDB.), Outdoor: 47°FDB./43°FWB. (8.3°CDB./6.1°CWB.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- 4.The factory setting of external static pressure is shown without < > .
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- 5.Auxiliary devices which may be a potential ignition source shall not be installed in the duct work.
Examples of such potential ignition sources are hot surfaces with a temperature exceeding 700°C [1292°F] and electric switching devices.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Ceiling concealed type
High static pressure type

PEFY-P NMHU-E2
PEFY-P NMHSU-E



PEFY-P NMHU-E2



PEFY-P NMHSU-E

A wide range of external static pressure allows authentic duct air-conditioning with an elegant interior layout.

Maximum external static pressure of 1.00 in.WG [250 Pa]

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

			P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
External static pressure	208V	in.WG	0.40 - 1.00					0.20-0.40-0.60-0.80-1.00				
		Pa	100 - 250					50-100-150-200-250				
	230V	in.WG	0.60 - 1.00					0.20-0.40-0.60-0.80-1.00				
		Pa	150 - 250					50-100-150-200-250				

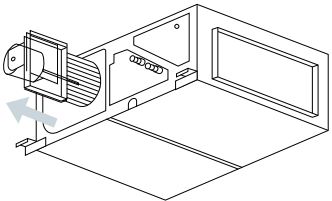
Reduced sound pressure level achieved with a newly designed centrifugal fan

• Sound pressure level table (Standard static pressure 230 V)

											dB(A)	
Sound pressure level	Capacity		P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
	Fan speed	High	45	45	46	44	44	46	46	47	43	46
		Low	39	39	40	38	38	40	40	41	36	39

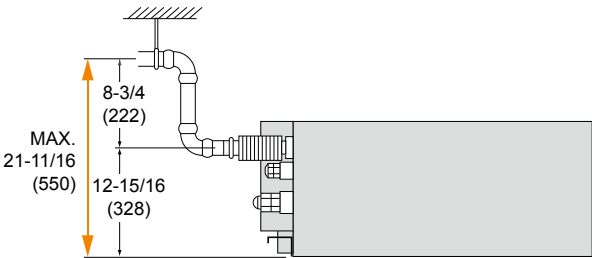
Maintenance from one side

Maintenance of the unit, including fan inspection and fan motor removal, can be conducted from the inspection opening on one side of the unit .



Drain pump (Optional for NMHSU-E) ensures a lift of up to 21-11/16 in. (550 mm)

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



in. (mm)

Ceiling concealed type

R32R454B

High static pressure type

PEFY-M NMHU-A



Model			PEFY-M15NMHU-A	PEFY-M18NMHU-A	PEFY-M24NMHU-A	PEFY-M27NMHU-A	PEFY-M30NMHU-A	
Power source			1-phase 208/230 V 60 Hz					
Cooling capacity (Nominal)	*1	BTU/h	15,000	18,000	24,000	27,000	30,000	
	*1	kW	4.4	5.3	7.0	7.9	8.8	
	*2	Power input (208/230 V)	kW	0.122/0.122	0.172/0.172	0.192/0.192	0.222/0.222	
	*2	Current input (208/230 V)	A	0.90/0.81	1.21/1.09	1.30/1.18	1.50/1.36	
Heating capacity (Nominal)	*3	BTU/h	17,000	20,000	27,000	30,000	34,000	
	*3	kW	5.0	5.9	7.9	8.8	10.0	
	*2	Power input (208/230 V)	kW	0.120/0.120	0.120/0.120	0.170/0.170	0.190/0.190	
	*2	Current input (208/230 V)	A	0.90/0.81	1.21/1.09	1.30/1.18	1.50/1.36	
External finish			Galvanized steel plate					
External dimension		in.	15 x 29-3/8 x 35-7/16	15 x 29-3/8 x 35-7/16	15 x 29-3/8 x 35-7/16	15 x 40-9/16 x 35-7/16	15 x 40-9/16 x 35-7/16	
H x W x D		mm	380 x 745 x 900	380 x 745 x 900	380 x 745 x 900	380 x 1,030 x 900	380 x 1,030 x 900	
Net weight		lbs (kg)	82 (37)	82 (37)	82 (37)	104 (47)	104 (47)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
FAN	Type x Quantity	Sirocco fan x 1						
		Sirocco fan x 1						
		Sirocco fan x 1						
		Sirocco fan x 2						
	External (208 V) static press.	in.WG	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	
		Pa	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	
		in.WG	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	
		Pa	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	
	Motor Type		DC motor					
	Motor output		kW	0.300	0.300	0.300	0.300	
	Driving mechanism		Direct-driven by motor					
	Air flow rate			(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)
		cfm		353 - 424 - 494	353 - 424 - 494	477 - 565 - 671	547 - 636 - 777	636 - 759 - 883
		m³/min		10.0 - 12.0 - 14.0	10.0 - 12.0 - 14.0	13.5 - 16.0 - 19.0	15.5 - 18.0 - 22.0	18.0 - 21.5 - 25.0
		L/s		167 - 200 - 233	167 - 200 - 233	225 - 267 - 317	258 - 300 - 367	300 - 358 - 417
Sound pressure level (measured in anechoic room) (208 V)		*2	(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	
		dB <A>	31 - 35 - 38	31 - 35 - 38	32 - 36 - 40	29 - 33 - 38	31 - 35 - 38	
		dB <A>	31 - 35 - 38	31 - 35 - 38	32 - 36 - 40	29 - 33 - 38	31 - 35 - 40	
Air filter			Option:Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.					
Diameter of refrigerant pipe		Liquid	in. (mm)	1/4 (6.35)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze	
		Gas	in. (mm)	1/2 (12.7)Braze	5/8 (15.88)Braze	5/8 (15.88)Braze	5/8 (15.88)Braze	
Field drain pipe size			in. (mm)	O.D.1-1/4 (32)	O.D.1-1/4 (32)	O.D.1-1/4 (32)	O.D.1-1/4 (32)	
Model			PEFY-M36NMHU-A	PEFY-M48NMHU-A	PEFY-M54NMHU-A	PEFY-M72NMHU-A	PEFY-M96NMHU-A	
Power source			1-phase 208/230 V 60 Hz					
Cooling capacity (Nominal)	*1	BTU/h	36,000	48,000	54,000	72,000	96,000	
	*1	kW	10.6	14.1	15.8	21.1	28.1	
	*2	Power input (208/230 V)	kW	0.332/0.332	0.332/0.332	0.372/0.372	0.710/0.710	1.000/1.000
	*2	Current input (208/230 V)	A	2.30/2.08	2.30/2.08	2.50/2.26	4.06/3.68	5.41/4.89
Heating capacity (Nominal)	*3	BTU/h	40,000	54,000	60,000	80,000	108,000	
	*3	kW	11.7	15.8	17.6	23.4	31.7	
	*2	Power input (208/230 V)	kW	0.330/0.330	0.330/0.330	0.370/0.370	0.700/0.700	0.990/0.990
	*2	Current input (208/230 V)	A	2.30/2.08	2.30/2.08	2.50/2.26	3.70/3.35	5.05/4.57
External finish			Galvanized steel plate					
External dimension		in.	15 x 47-1/16 x 35-7/16	15 x 47-1/16 x 35-7/16	15 x 47-1/16 x 35-7/16	18-9/16 x 49-1/4 x 44-1/8	18-9/16 x 49-1/4 x 44-1/8	
H x W x D		mm	380 x 1,195 x 900	380 x 1,195 x 900	380 x 1,195 x 900	470 x 1,250 x 1,120	470 x 1,250 x 1,120	
Net weight		lbs (kg)	122 (55)	122 (55)	126 (57)	214 (97)	218 (99)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
FAN	Type x Quantity	Sirocco fan x 2						
		Sirocco fan x 2						
		Sirocco fan x 2						
		Sirocco fan x 2						
	External (208 V) static press.	in.WG	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	
		Pa	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	
		in.WG	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	<0.40> - 0.60 - <0.80> - <1.00>	
		Pa	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	<100> - 150 - <200> - <250>	
	Motor Type		DC motor					
	Motor output		kW	0.375	0.375	0.375	1.122	1.122
	Driving mechanism		Direct-driven by motor					
	Air flow rate			(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	(Low-Mid-High)	(Low-Mid-High)
		cfm		936 - 1,130 - 1,342	936 - 1,130 - 1,342	989 - 1,201 - 1,413	1,766 - 2,154 - 2,543	2,048 - 2,507 - 2,966
		m³/min		26.5 - 32.0 - 38.0	26.5 - 32.0 - 38.0	28.0 - 34.0 - 40.0	50.0 - 61.0 - 72.0	58.0 - 71.0 - 84.0
		L/s		442 - 533 - 633	442 - 533 - 633	467 - 567 - 667	834 - 1,017 - 1,200	967 - 1,183 - 1,400
Sound pressure level (measured in anechoic room) (208 V)		*2	(Low-Middle-High)	(Low-Middle-High)	(Low-Middle-High)	(Low-Mid-High)	(Low-Mid-High)	
		dB <A>	34 - 40 - 44	34 - 40 - 44	35 - 40 - 45	40.5 - 43 - 47	40.5 - 45 - 48.5	
		dB <A>	34 - 40 - 44	34 - 40 - 44	35 - 40 - 45	40.5 - 43 - 47	40.5 - 45 - 48.5	
Air filter			Option:Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.					
Diameter of refrigerant pipe		Liquid	in. (mm)	3/8 (9.52)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze	
		Gas	in. (mm)	5/8 (15.88)Braze	5/8 (15.88)Braze	3/4 (19.05)Braze	7/8 (22.2)Braze	
Field drain pipe size			in. (mm)	O.D.1-1/4 (32)	O.D.1-1/4 (32)	O.D.1-1/4 (32)	O.D.1-1/4 (32)	

Notes:

- Nominal cooling conditions
Indoor: 80°FDB./67°FWB. (26.7°CDB./19.4°CWB.), Outdoor: 95°FDB. (35°CDB.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions
Indoor: 70°FDB. (21.1°CDB.), Outdoor: 47°FDB./43°FWB. (8.3°CDB./6.1°CWB.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- The factory setting of external static pressure is shown without < > .
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Auxiliary devices which may be a potential ignition source shall not be installed in the duct work.
Examples of such potential ignition sources are hot surfaces with a temperature exceeding 700°C [1292°F] and electric switching devices.

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Multi-position air handler

PVFY-M NAMU-A



Multi-position capabilities allow for installation in vertical, horizontal left, or horizontal right position, and down-flow configuration.

PVFY multi-position air handlers can be connected to a system with other CITY MULTI indoor units for system design flexibility. Multi-position capabilities allow installation in vertical, horizontal left, horizontal right, or down-flow configurations, making the multi-position design is suitable for various applications.

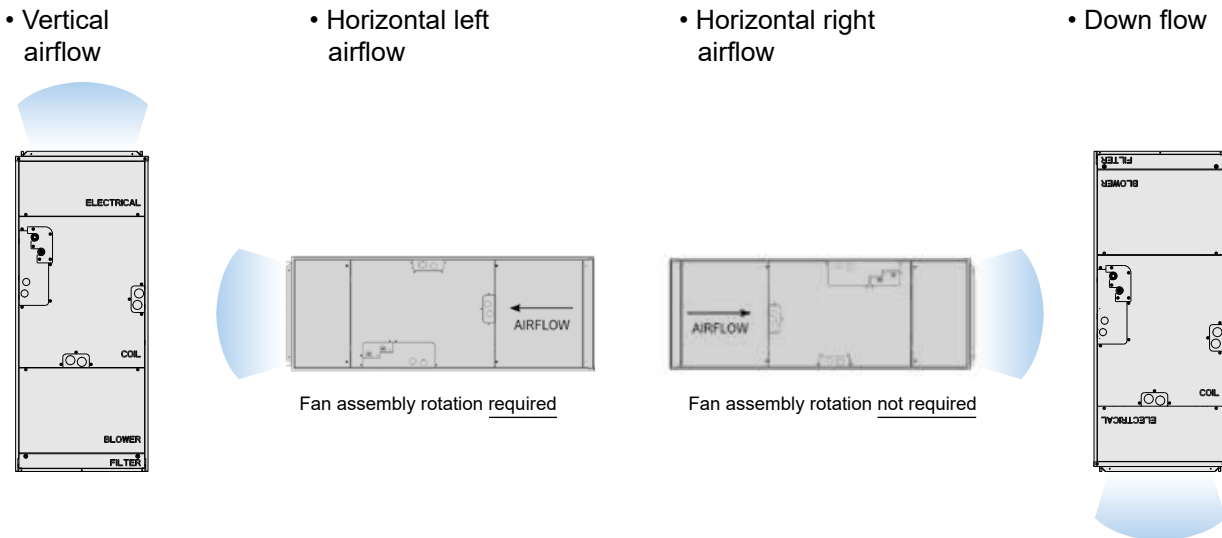
The PVFY offers quiet operation with a variable speed, highly efficient DC motor featuring a forward curved blower, allowing constant personalized comfort at three different fan speeds and external static pressures.

Expanded Lineup with the New M60

With the new M60, the broad lineup offers highly flexible proposals specifically tailored to your diverse needs and applications.

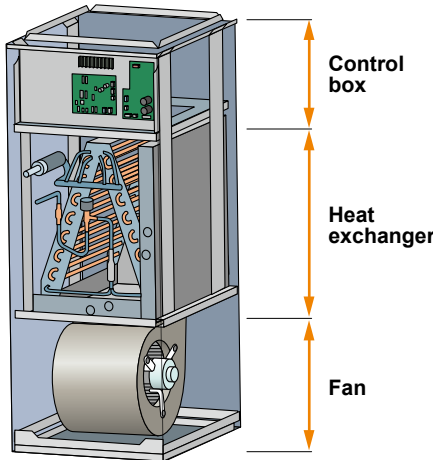
Four installation position options

The unit can be installed in one of four different positions to suit the space it is installed in. For example, install the unit vertically to minimize its footprint, or install it horizontally in a ceiling space.



Easy maintenance

The control box, heat exchanger, and fan are in separate sections, for easy maintenance.



Selectable external static pressures up to 0.80

• External static pressure setting

Series	08	12	18	24	30	36	48	54	60
PVFY-M NAMU-A	0.30/0.50/0.80* in.WG								
	75/125/200 Pa								

*Refer to the Installation manual for more detail.

Multi-position air handler PVFY-M NAMU-A

Model			PVFY-M08NAMU-A	PVFY-M12NAMU-A	PVFY-M18NAMU-A	PVFY-M24NAMU-A
Power source			1-phase 208/230 V 60 Hz			
Cooling capacity *1		BTU/h	8,000	12,000	18,000	24,000
		kW	2.3	3.5	5.3	7.0
*2	Power input	kW	0.080	0.080	0.130	0.180
*2	Current input	A	0.80/0.70	0.80/0.70	1.20/1.10	1.60/1.40
Heating capacity *3		BTU/h	9,000	13,500	20,000	27,000
		kW	2.6	4.0	5.9	7.9
*2	Power input	kW	0.080	0.080	0.130	0.180
*2	Current input	A	0.80/0.70	0.80/0.70	1.20/1.10	1.60/1.40
External finish			Galvanized steel cabinet - Powder coated slate gray			
External dimension		in.	50-1/4 x 17 x 21-5/8	50-1/4 x 17 x 21-5/8	50-1/4 x 17 x 21-5/8	50-1/4 x 17 x 21-5/8
H x W x D		mm	1,275 x 432 x 548	1,275 x 432 x 548	1,275 x 432 x 548	1,275 x 432 x 548
Net weight		lbs (kg)	113 (51)	113 (51)	113 (51)	113 (51)
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1
	External static press. *4	in.WG	<0.30> - 0.50 - <0.80>	<0.30> - 0.50 - <0.80>	<0.30> - 0.50 - <0.80>	<0.30> - 0.50 - <0.80>
		Pa	<75> - 125 - <200>	<75> - 125 - <200>	<75> - 125 - <200>	<75> - 125 - <200>
	Motor Type		DC motor			
	Motor output		kW	0.121	0.121	0.121
	Driving mechanism		Direct-driven by motor			
	Air flow rate		(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
		cfm	280 - 340 - 400	280 - 340 - 400	410 - 497 - 585	515 - 625 - 735
		m³/min	7.9 - 9.6 - 11.3	7.9 - 9.6 - 11.3	11.6 - 14.1 - 16.6	14.6 - 17.7 - 20.8
		L/s	132 - 160 - 188	132 - 160 - 188	193 - 235 - 277	243 - 295 - 347
Sound pressure level (measured in anechoic room)		*2 dB <A>	(Low-Mid-High) 31-35-38	(Low-Mid-High) 31-35-38	(Low-Mid-High) 30-35-40	(Low-Mid-High) 31-36-40
Air filter			PP honeycomb fabric.			
Connectable outdoor unit			R32/R454B CITY MULTI	R32/R454B CITY MULTI	R32/R454B CITY MULTI	R32/R454B CITY MULTI
Diameter of	Liquid (R32/R454B)	in. (mm)	1/4 (6.35)Braze	1/4 (6.35)Braze	1/4 (6.35)Braze	3/8 (9.52)Braze
refrigerant pipe	Gas (R32/R454B)	in. (mm)	1/2 (12.7)Braze	1/2 (12.7)Braze	1/2 (12.7)Braze	5/8 (15.88)Braze
Field drain pipe size		in. (mm)	3/4 (19.05) FPT	3/4 (19.05) FPT	3/4 (19.05) FPT	3/4 (19.05) FPT

Model			PVFY-M30NAMU-A	PVFY-M36NAMU-A	PVFY-M48NAMU-A	PVFY-M54NAMU-A	PVFY-M60NAMU-A
Power source			1-phase 208/230 V 60 Hz				
Cooling capacity *1		BTU/h	30,000	36,000	48,000	54,000	59,500
		kW	8.8	10.6	14.1	15.8	17.4
*2	Power input	kW	0.210	0.340	0.420	0.480	0.810
*2	Current input	A	2.00/1.70	3.00/2.70	3.50/3.30	3.90/3.70	5.98/5.52
Heating capacity *3		BTU/h	34,000	40,000	54,000	60,000	66,000
		kW	10.0	11.7	15.8	17.6	19.3
*2	Power input	kW	0.210	0.340	0.420	0.480	0.810
*2	Current input	A	2.00/1.70	3.00/2.70	3.50/3.30	3.90/3.70	5.98/5.52
External finish			Galvanized steel cabinet - Powder coated slate gray				
External dimension		in.	54-1/4 x 21 x 21-5/8	54-1/4 x 21 x 21-5/8	59-1/2 x 25 x 21-5/8	59-1/2 x 25 x 21-5/8	59-1/2 x 25 x 21-5/8
H x W x D		mm	1,378 x 534 x 548	1,378 x 534 x 548	1,511 x 635 x 548	1,511 x 635 x 548	1,511 x 635 x 548
Net weight		lbs (kg)	141 (64)	141 (64)	172 (78)	172 (78)	174 (79)
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1
	External static press. *4	in.WG	<0.30> - 0.50 - <0.80>	<0.30> - 0.50 - <0.80>*5	<0.30> - 0.50 - <0.80>	<0.30> - 0.50 - <0.80>*5	<0.30> - 0.50 - <0.80>*6
		Pa	<75> - 125 - <200>	<75> - 125 - <200>	<75> - 125 - <200>	<75> - 125 - <200>	<75> - 125 - <200>
	Motor Type		DC motor				
	Motor output	kW	0.244	0.244	0.43	0.43	0.750
	Driving mechanism		Direct-driven by motor				
	Air flow rate		(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
		cfm	613 - 744 - 875	767 - 931 - 1,095	980 - 1,190 - 1,400	1,040 - 1,262 - 1,485	1,225 - 1,485 - 1,750
		m³/min	17.3 - 21.1 - 24.8	21.7 - 26.4 - 31.0	27.7 - 33.7 - 39.6	29.4 - 35.7 - 42.0	34.6 - 42.0 - 49.5
		L/s	288 - 352 - 413	362 - 440 - 517	462 - 562 - 660	490 - 595 - 700	578 - 700 - 825
Sound pressure level (measured in anechoic room)		*2 dB <A>	(Low-Mid-High) 34-40-44	(Low-Mid-High) 38-42-47	(Low-Mid-High) 44-47-50	(Low-Mid-High) 45-48-52	(Low-Mid-High) 48-55-56
Air filter			PP honeycomb fabric.				
Connectable outdoor unit			R32/R454B CITY MULTI	R32/R454B CITY MULTI	R32/R454B CITY MULTI	R32/R454B CITY MULTI	R32/R454B CITY MULTI
Diameter of	Liquid (R32/R454B)	in. (mm)	3/8 (9.52)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze	3/8 (9.52)Braze
refrigerant pipe	Gas (R32/R454B)	in. (mm)	5/8 (15.88)Braze	5/8 (15.88)Braze	5/8 (15.88)Braze	5/8 (15.88)Braze	3/4 (19.05)Braze
Field drain pipe size		in. (mm)	3/4 (19.05) FPT	3/4 (19.05) FPT	3/4 (19.05) FPT	3/4 (19.05) FPT	3/4 (19.05) FPT

Notes:

- 1.Nominal cooling conditions
Indoor: 80°F.D.B./67°F.W.B. (26.7°C.D.B./19.4°C.W.B.), Outdoor: 95°F.D.B. (35°C.D.B.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- 2.The values are measured at the factory setting of external static pressure.
- 3.Nominal heating conditions
Indoor: 70°F.D.B. (21.1°C.D.B.), Outdoor: 47°F.D.B./43°F.W.B. (8.3°C.D.B./6.1°C.W.B.)
Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
- 4.The factory setting of external static pressure is shown without < >.
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- 5.Maximum external static pressure in case of downflow for PVFY-M36: 0.60 in.WG/150Pa
Maximum external static pressure in case of downflow for PVFY-M54: 0.70 in.WG/175Pa
- 6.Maximum external static pressure in case of upflow for PVFY-M60: 0.60 in. WG/150Pa
Maximum external static pressure in case of downflow for PVFY-M60: 0.40 in. WG/100Pa



Ceiling suspended type



Ceiling suspended type **R32** **R454B**

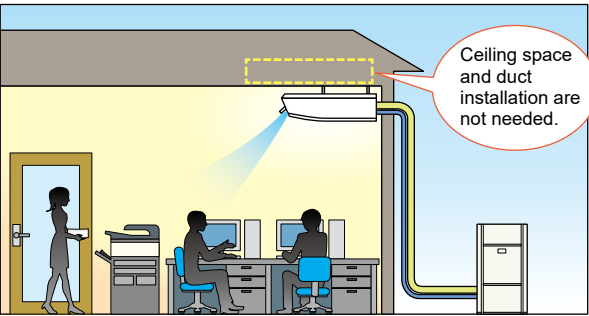
PCFY-M NKMU-A



A stylish indoor unit design and optional drain pump expand installation possibilities.

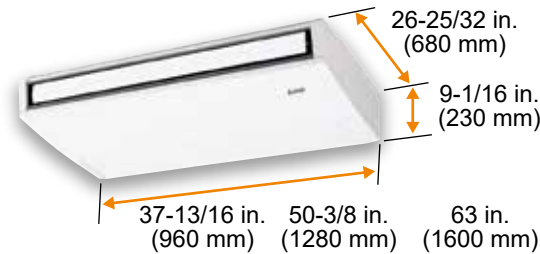
Easy installation

The ceiling suspended cassette can easily be installed without requiring ductwork, even if the ceiling does not have sufficient space.



A height of 9-1/16 in. (230 mm) for harmony with the interior design

Sleek and slim with stylishly curved lines, the PCFY-Series blends right into any interior.



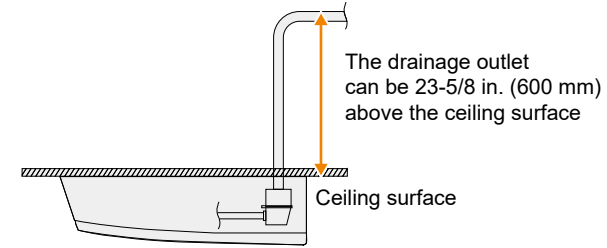
Automatic air-speed adjustment

An automatic air-speed mode automatically adjusts airflow speed to maintain comfortable room conditions at all times. This setting automatically adjusts the air speed to conditions that match the room environment. At the start of heating/cooling operation, the airflow is set to high speed to quickly heat/cool the room. When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable and comfortable heating/cooling operation.

Drain pumps can be supported throughout the horsepower range. (Optional)

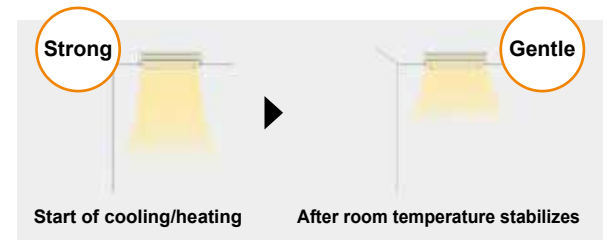
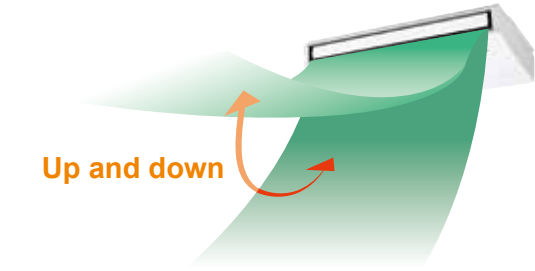
The optional drain pump allows the drain connection to be raised as high as 23-5/8 in. (600 mm), expanding flexibility in choosing an installation location.

• Drain pump installation



Auto vane control

Outlet vanes can be moved up and down using the remote controller. This improved airflow control feature helps eliminate the cold draft feeling.



Ceiling suspended type **R32** **R454B**

PCFY-M NKMU-A



Model		PCFY-M15NKMU-A	PCFY-M24NKMU-A	PCFY-M30NKMU-A	PCFY-M36NKMU-A
Power source		1-phase 208/230V 60Hz			
Cooling capacity (Nominal)	*1 BTU/h	15,000	24,000	30,000	36,000
	*1 kW	4.4	7.0	8.8	10.6
	Power input kW	0.03	0.04	0.09	0.11
Heating capacity (Nominal)	*2 BTU/h	17,000	27,000	34,000	40,000
	*2 kW	5.0	7.9	10.0	11.7
	Power input kW	0.03	0.04	0.09	0.11
External finish		MUNSELL (6.4Y 8.9/0.4)			
External dimension H x W x D	inch	9-1/16 x 37-13/16 x 26-3/4	9-1/16 x 50-3/8 x 26-3/4	9-1/16 x 63 x 26-3/4	9-1/16 x 63 x 26-3/4
	mm	230 x 960 x 680	230 x 1280 x 680	230 x 1600 x 680	230 x 1600 x 680
Net weight	lbs(kg)	53 (24)	71 (32)	79 (36)	84 (38)
Heat exchanger		Cross fin(Aluminium fin and copper tube)			
FAN	Type x Quantity	Sirocco fan x 2			
	External static press.	in.WG	0.000 (208V)	0.000 (208V)	0.000 (208V)
		Pa	0	0	0
		in.WG	0.000 (230V)	0.000 (230V)	0.000 (230V)
Motor Type	Motor output kW	0.090	0.095	0.160	0.160
	Driving mechanism	Direct driven by motor			
Air flow rate (Low-Mid2-Mid1-High)	cfm	353-388-424-459	494-530-565-636	703-777-883-989	742-847-953-1095
	m³/min	10-11-12-13	14-15-16-18	20-22-25-28	21-24-27-31
	L/s	167-183-200-217	233-250-267-300	333-367-417-467	350-400-450-517
Sound pressure level (measured in anechoic room)	dB <A>	29-32-34-36	31-33-35-37	34-37-40-43	36-39-42-44
Insulation material		Polyethylene sheet			
Air filter		PP honeycomb			
Protection device		Fuse			
Refrigerant control device		LEV			
Connectable outdoor unit		R32/R454B CITY MULTI			
Diameter of refrigerant pipe	Liquid inch (mm)	1/4 (6.35) Flare	3/8(9.52) Flare	3/8(9.52) Flare	3/8(9.52) Flare
	Gas inch (mm)	1/2 (12.7) Flare	5/8(15.88) Flare	5/8(15.88) Flare	5/8(15.88) Flare
Field drain pipe size		O.D. 1 (26)			
Optional parts	External heater adapter	PAC-YU25HT			
	i-see Sensor	PAC-SH91MK-E			
	Wireless remote controller kit with i-see Sensor	PAR-SA92MW-E			
	Wireless remote controller kit	PAR-SL93B-E			
	High efficiency filter	PAC-SH88KF-E	PAC-SH89KF-E	PAC-SH90KF-E	PAC-SH90KF-E
Alarm Kit		PAC-SL54AL-E			
Remarks		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.			

Notes:

Indoor:	*1 Nominal cooling conditions	*2 Nominal heating conditions
	80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.)	70°F D.B. (21°C D.B.)
Outdoor:	95°F D.B. (35°C D.B.)	47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)
	Pipe length 25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference	0 ft. (0 m)	0 ft. (0 m)

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation



Wall-mounted type



Wall-mounted type R32 R454B

PKFY-M NLMU-A

PKFY-M NKMU-A



PKFY-M04-12NLMU-A



PKFY-M15/M18NLMU-A



PKFY-M24/M30NKMU-A

Its sophisticated design matches any room interior without disturbing the atmosphere of the room.

A design that matches any room interior (NLMU model)

A sharp and simple form combines beauty and function. The simple square design harmonizes beautifully with the straight lines of the walls, floor and ceiling. The white body color has been adopted to enhance the beauty and comfort of a room without disturbing its atmosphere.

Latest model



PKFY-M NLMU <P04-P12>



PKFY-M NLMU <P15/18>

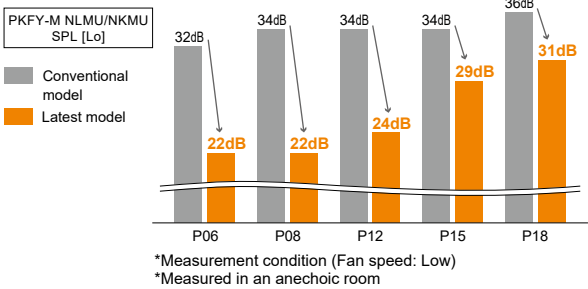
Lineup

The broad lineup from M04 to M30 offers flexible proposals tailored to diverse customer needs and applications.

		M04	M06	M08	M12	M15	M18	M24	M30
Latest	NLMU	●	●	●	●	●	●		
Latest	NKMU							●	●

Reduced noise level

The noise level has been reduced compared to the conventional model (PKFY-P NBMU/NHMU) by improving the unit structure, including the line flow fan.



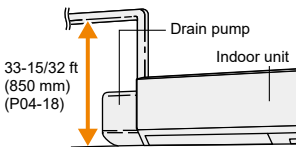
Improved airflow control

The NLMU model provides 4 fan speeds and an auto mode. Additionally, the vane angle can be set to five steps. This enables air conditioning as desired.

Latest	PKFY-M** NLMU/ NKMU	4 speeds + AUTO	5 steps	✓
--------	---------------------------	-----------------------	---------	---

Optional drain pump

The optional drain pump allows the drain connection to be raised as high as 33-15/32 ft (850 mm) (M04-18), allowing more flexibility in piping layout design.



Wall-mounted type **R32** **R454B**

PKFY-M NLMU-A

PKFY-M NKMU-A



PKFY-M04-12NLMU-A



PKFY-M15/M18NLMU-A



PKFY-M24/M30NKMU-A

Model			PKFY-M04NLMU-A	PKFY-M06NLMU-A	PKFY-M08NLMU-A	PKFY-M12NKMU-A
Power source			1-phase 208/230V 60Hz			
Cooling capacity (Nominal)	*1	BTU/h	4,000	6,000	8,000	12,000
	*1	kW	1.1	1.8	2.3	3.5
	Power input	kW	0.02	0.02	0.03	0.04
	Current input	A	0.20	0.20	0.25	0.35
Heating capacity (Nominal)	*2	BTU/h	4,500	6,700	9,000	13,500
	*2	kW	1.3	2.0	2.6	4.0
	Power input	kW	0.01	0.01	0.02	0.03
	Current input	A	0.15	0.15	0.20	0.30
External finish			Plastic (0.7PB 9.2/0.4)			
External dimension		in.	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32
H x W x D		mm	299 x 773 x 237	299 x 773 x 237	299 x 773 x 237	299 x 773 x 237
Net weight		lbs(kg)	23.6(10.7)	24.5(11.1)	24.5(11.1)	24.5(11.1)
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
FAN	Type x Quantity		Line flow fan x 1			
	External static press.	in.WG	0	0	0	0
		Pa	0	0	0	0
	Motor Type		DC motor			
	Motor output		kW	0.030	0.030	0.030
	Driving mechanism		Direct-driven			
	Air flow rate (Low-Mid2-Mid1-High)	cfm	117-124-134-148	141-155-173-191	141-162-191-237	152-191-244-297
		m³/min	3.3-3.5-3.8-4.2	4.0-4.4-4.9-5.4	4.0-4.6-5.4-6.7	4.3-5.4-6.9-8.4
		L/s	55-58-63-70	67-73-82-90	67-77-90-112	72-90-115-140
Sound pressure level (measured in anechoic room)		dB <A>	22-24-26-28	22-26-29-31	22-27-31-35	24-31-37-41
Insulation material			Polyethylene sheet			
Air filter			PP honeycomb			
Protection device			Fuse			
Refrigerant control device			LEV			
Connectable outdoor unit			R32/R454B CITY MULTI			
Diameter of refrigerant pipe	Liquid	in.(mm)	1/4(6.35)	1/4(6.35)	1/4(6.35)	1/4(6.35)
	Gas	in.(mm)	1/2(12.7)	1/2(12.7)	1/2(12.7)	1/2(12.7)
Field drain pipe size		in.(mm)	I.D. 5/8(16)			
Optional parts	Drain pump kit		PAC-SL48DM-E			
	External heater adapter		PAC-YU25HT			
	Alarm Kit		PAC-SL54AL-E			
Remarks			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.			

Notes:

	*1 Nominal cooling conditions	*2 Nominal heating conditions
Indoor:	80degF D.B. / 67degF W.B. (26.7degC D.B. / 19.4degC W.B.)	70degF D.B. (21.0degC D.B.)
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)
Pipe length	25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference	0 ft. (0 m)	0 ft. (0 m)

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

Model			PKFY-M15NLMU-A	PKFY-M18NLMU-A	PKFY-M24NKMU-A	PKFY-M30NKMU-A	
Power source			1-phase 208/230V 60Hz				
Cooling capacity (Nominal)	*1	BTU/h	15,000	18,000	24,000	30,000	
	*1	kW	4.4	5.3	7.0	8.8	
	Power input	kW	0.04	0.05	0.08	0.08	
	Current input	A	0.35	0.45	0.58	0.58	
Heating capacity (Nominal)	*2	BTU/h	17,000	20,000	27,000	34,000	
	*2	kW	5.0	5.9	7.9	10.0	
	Power input	kW	0.03	0.04	0.08	0.08	
	Current input	A	0.30	0.40	0.58	0.58	
External finish			Plastic (0.7PB 9.2/0.4)		Plastic, MUNSELL (0.7PB 9.2/0.4)		
External dimension		in.	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32	
H x W x D		mm	299 x 898 x 237	299 x 898 x 237	365 x 1170 x 295	365 x 1170 x 295	
Net weight		lbs(kg)	28.4(12.9)	28.4(12.9)	46(21)	46(21)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
FAN	Type x Quantity		Line flow fan x 1				
	External static press.	in.WG	0	0	0	0	
		Pa	0	0	0	0	
	Motor Type		DC motor				
	Motor output		kW	0.030	0.030	0.069	0.069
	Driving mechanism		Direct-driven				
	Air flow rate (Low-Mid2-Mid1-High)	cfm	222-261-304-353	240-293-360-438	570-920	710-920	
		m³/min	6.3-7.4-8.6-10.0	6.8-8.3-10.2-12.4	16-26	20-26	
		L/s	105-123-143-167	113-138-170-207	267-433	333-433	
Sound pressure level (measured in anechoic room)		dB <A>	29-34-37-40	31-36-41-46	39-49	43-49	
Insulation material			Polyethylene sheet				
Air filter			PP honeycomb				
Protection device			Fuse				
Refrigerant control device			LEV				
Connectable outdoor unit			R32/R454B CITY MULTI				
Diameter of refrigerant pipe	Liquid	in.(mm)	1/4(6.35)	1/4(6.35)	3/8(9.52) Flare	3/8(9.52) Flare	
	Gas	in.(mm)	1/2(12.7)	1/2(12.7)	5/8(15.88) Flare	5/8(15.88) Flare	
Field drain pipe size		in.(mm)	I.D. 5/8(16)				
Optional parts	Drain pump kit		PAC-SL48DM-E				
	External heater adapter		PAC-YU25HT				
	Alarm Kit		PAC-SL54AL-E				
Remarks			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.				

Notes:

	*1 Nominal cooling conditions	*2 Nominal heating conditions
Indoor:	80degF D.B. / 67degF W.B. (26.7degC D.B. / 19.4degC W.B.)	70degF D.B. (21.0degC D.B.)
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)
Pipe length	25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference	0 ft. (0 m)	0 ft. (0 m)

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation

OPTIONAL PARTS FOR INDOOR UNITS

• 4-way cassette type (PLFY-EM NEMU/PLFY-M NFMU)

Description	Model	Applicable capacity	
		NEMU	NFMU
3D i-see Sensor panel	SLP-18FAEU	-	Available
3D i-see Sensor corner panel	PAC-SF1ME-E	-	Available
Decoration panel	SLP-18FAU	-	Available
Multi-functional casement	PAC-SJ41TM-E	Available	-
High-efficiency filter element	PAC-SH59KF-E	Available	-
Air outlet shutter plate (1 set)	PAC-SJ37SP-E	Available	-
Flange for fresh air intake	PAC-SH65OF-E	Available	-
Wireless signal receiver	PAR-SR4LU-E	Available	-
	PAC-SF9FA-E	-	Available
External heater adapter	PAC-YU25HT	Available	-
Alarm Kit	PAC-SL54AL-E	Available	Available
Power Supply Interface for Alarm Kit	PAC-IF55AL-E	Available	Available

*PAC-SL54AL-E and PAC-IF55AL-E are only for PUMY system. PAC-IF55AL-E is necessary.

• Ceiling concealed type (PEFY-M NMSU)

Description	Model	Applicable capacity
External heater adaptor	PAC-YU25HT	Available
Alarm Kit	PAC-SL54AL-E	Available
Power Supply Interface for Alarm Kit	PAC-IF55AL-E	Available

*PAC-SL54AL-E and PAC-IF55AL-E are only for PUMY system. PAC-IF55AL-E is necessary.

• Ceiling concealed type (PEFY-M NMAU)

Description	Model	Applicable capacity
Filter box	PAC-KE91TB-E	M06, M08, M12
	PAC-KE92TB-E	M15
	PAC-KE93TB-E	M18, M24, M27
	PAC-KE94TB-E	M30, M36, M48
	PAC-KE95TB-E	M54
External heater adaptor	PAC-YU25HT	Available
Alarm Kit	PAC-SL54AL-E	Available
Power Supply Interface for Alarm Kit	PAC-IF55AL-E	Available

*PAC-SL54AL-E and PAC-IF55AL-E are only for PUMY system. PAC-IF55AL-E is necessary.

OPTIONAL PARTS FOR INDOOR UNITS

• Ceiling suspended type (PCFY-M NKMU)

Description	Model	Applicable capacity
i-see sensor	PAC-SH91MK-E	M15, M24, M30, M36
i-see sensor & wireless remote controller kit	PAR-SA92MW-E	M15, M24, M30, M36
Wireless remote controller kit	PAR-SL93B-E	M15, M24, M30, M36
Drain pump	PAC-SH83DM-E	M15
	PAC-SH84DM-E	M24, M30, M36
High efficiency filter element	PAC-SH88KF-E	M15
	PAC-SH89KF-E	M24
	PAC-SH90KF-E	M30, M36
External heater adapto	PAC-YU25HT	M15, M24, M30, M36
Alarm Kit	PAC-SL54AL-E	M15, M24, M30, M36
Power Supply Interface for Alarm Kit	PAC-IF55AL-E	M15, M24, M30, M36

*PAC-SL54AL-E and PAC-IF55AL-E are only for PUMY system. PAC-IF55AL-E is necessary.

• Wall mounted (PKFY-M NLMU/NKMU)

Description	Model	Applicable capacity
External heater adaptor	PAC-YU25HT	M04, M06, M08, M12, M15, M18, M24, M30
Drain pump kit	PAC-SL48DM-E	M04, M06, M08, M12, M15, M18, M24, M30
Alarm Kit	PAC-SL54AL-E	M04, M06, M08, M12, M15, M18, M24, M30
Power Supply Interface for Alarm Kit	PAC-IF55AL-E	M04, M06, M08, M12, M15, M18, M24, M30

*PAC-SL54AL-E and PAC-IF55AL-E are only for PUMY system. PAC-IF55AL-E is necessary.



LOSSNAY System

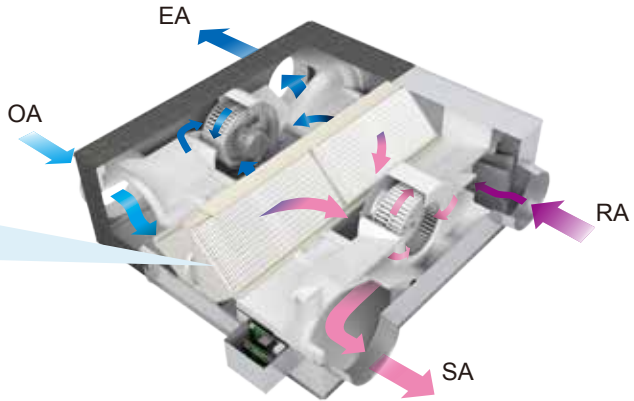
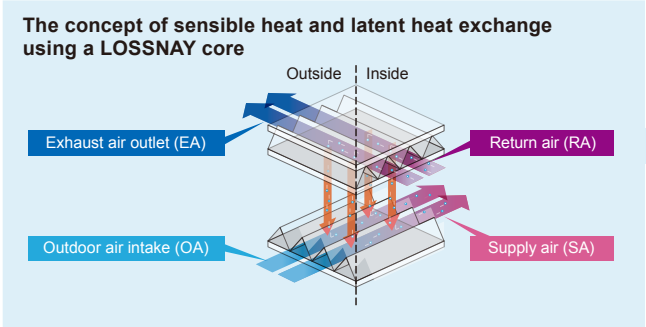
A diverse range of models for commercial and residential applications, each designed to meet specific airflow requirements and application needs.

Type	Core	Model	Airflow	Use	110 CFM	300 CFM	380 CFM	470 CFM	600 CFM	940 CFM	1200 CFM	1500 CFM
LOSSNAY	ERV	LGH-FMX Series**		Residential	●							
		LGH-FRVX2 Series	Single decker 	Commercial		●	●	●	●			
			Double decker 							●	●	
		LGH-FRVXT2 Series								●	●	●

*ERV = Energy recovery ventilator
**The image shown is of LGH-F110MXL-E.

What is LOSSNAY

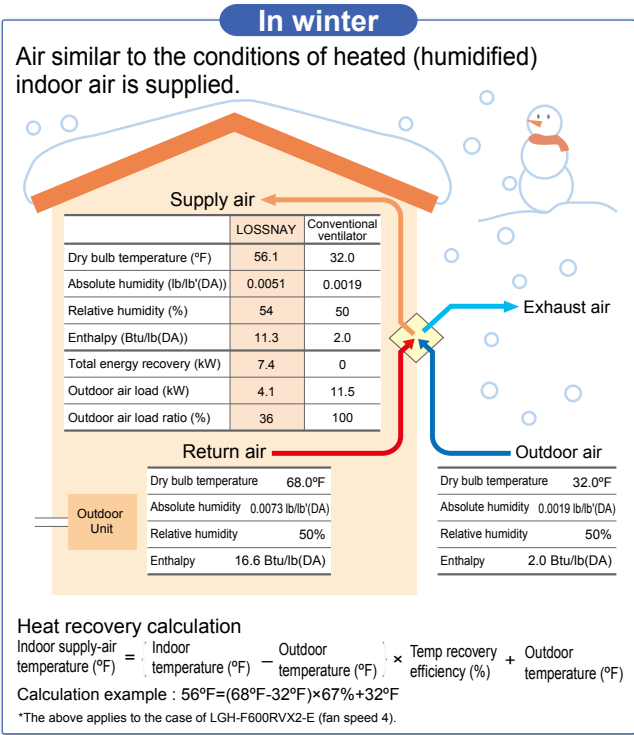
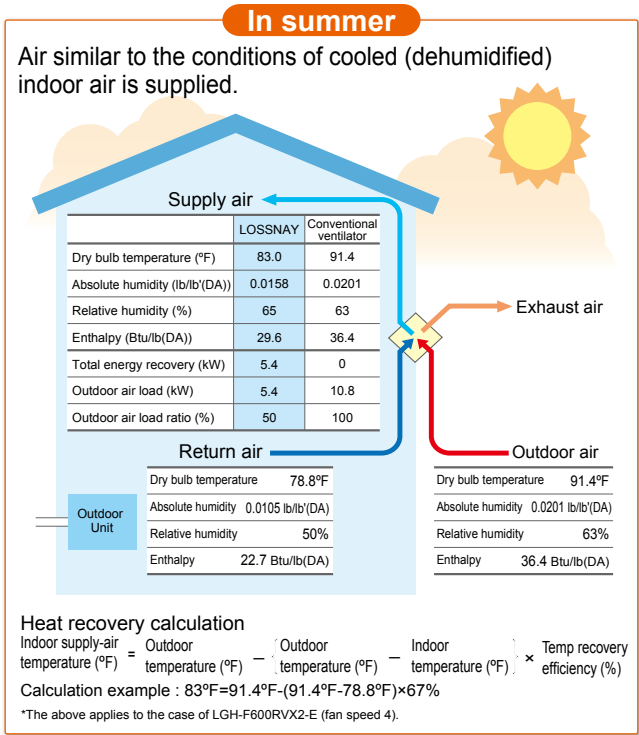
LOSSNAY is a total heat exchange ventilation system that uses paper characteristics to perform temperature (sensible heat) and humidity (latent heat) exchange.



*Image shown is representative of the LGH-FRVX2 Series.

Energy saving effects of LOSSNAY

- Ventilation with maximized comfort



Features of FMX Series

Residential



LGH-F110MXL/R-E

*The images shown are of LGH-F110MXL-E.

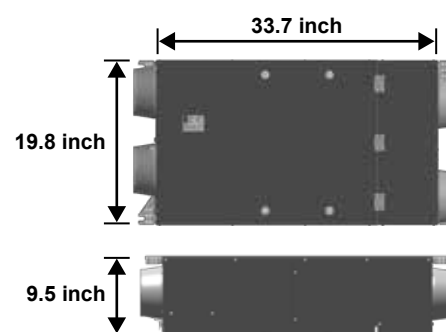


Main Feature



<Quiet Operation>

- Ultra quiet operation is achieved with the sirocco fan designed by Mitsubishi Electric.



<Universal Fit>

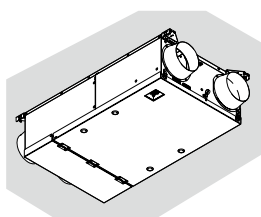
- Thin, slim body: 9.5 inches in height and 20 inches in depth or less.
- Can be installed horizontally or wall-mounted without any optional parts.
- Two symmetrical models in the lineup.
- Pressure ports for airflow measurement.

*The images shown are of LGH-F110MXL-E.

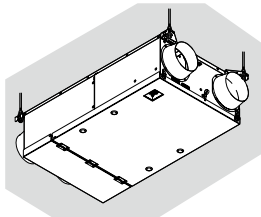
Installation Options without Optional Parts

Horizontal

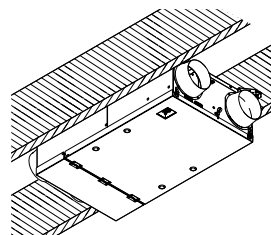
Ceiling mounted



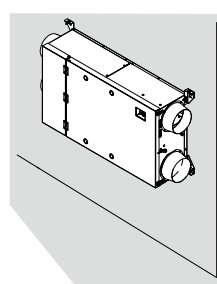
Ceiling suspended



Mounted between joists



Wall-mounted



*The images shown are of LGH-F110MXR-E.



On-board Control Panel

<Smart Control>

- Airflow setting by rotary switch.
- Constant airflow control selectable from 40 to 110 CFM in 10 CFM increments, with supply and exhaust controlled independently.
- Control method options: standalone, remote controller, M-NET, or external device.
- Automatic airflow control by optional CO₂ sensor. (Wall-mounted or duct-mounted)

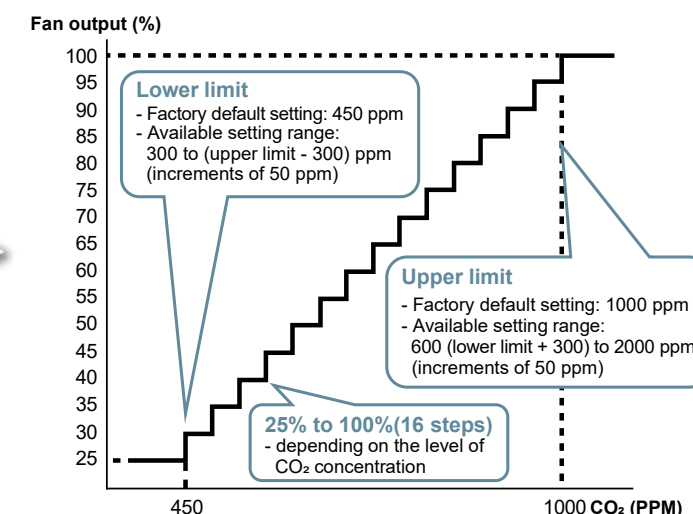
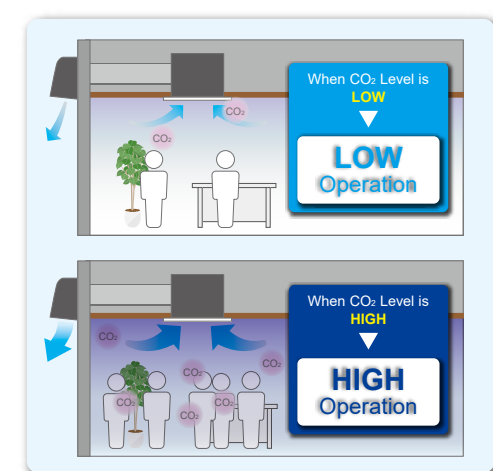
Features of FRVX2 and FRVXT2 Series

Commercial

Airflow control by CO₂ sensor

- 16 Steps of Automatic Airflow Control by CO₂ Level

The CO₂ sensor controls airflow by 16 steps depending on the CO₂ level in the room. This saves energy by over-ventilation while maintaining high indoor air quality.

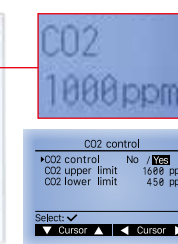


- 2 Ways to Monitor CO₂ Level

CO₂ Level can be monitored by LOSSNAY Remote Controller or Wall-mounted CO₂ Sensor.



PZ-62DR-EA



PZ-70CSW-E

- 2 Types of CO₂ Sensors

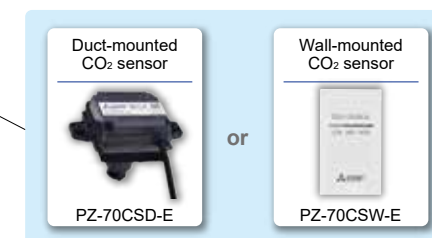
2 types of CO₂ Sensor is available. Power is supplied to both CO₂ sensor from LOSSNAY circuit board.



LGH-FRVX2 series

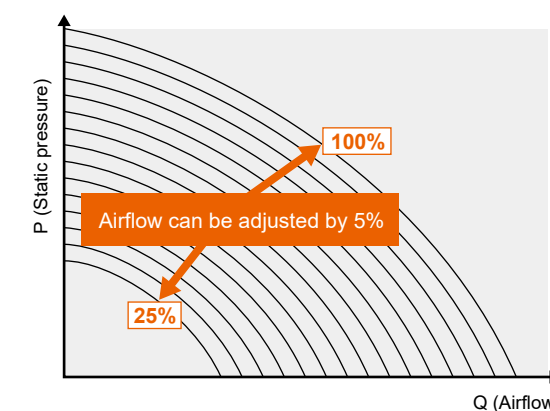


LGH-FRVXT2 series



Flexible Airflow Setting

With the flexible air volume setting, energy will be saved by preventing over-ventilation. The fan speed of both supply and exhaust air can be flexibly adjusted within the range between 25% to 100% offering sufficient air volume. Airflow can be adjusted by 5% increments.

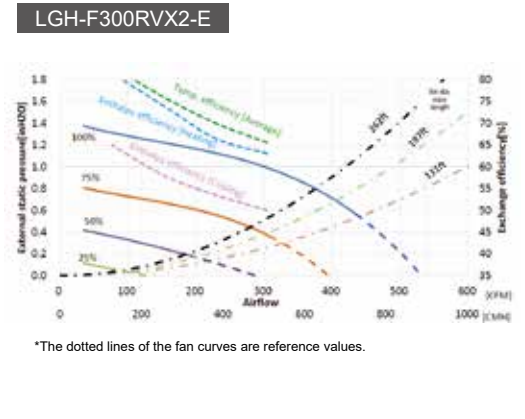


FRVX2 Series

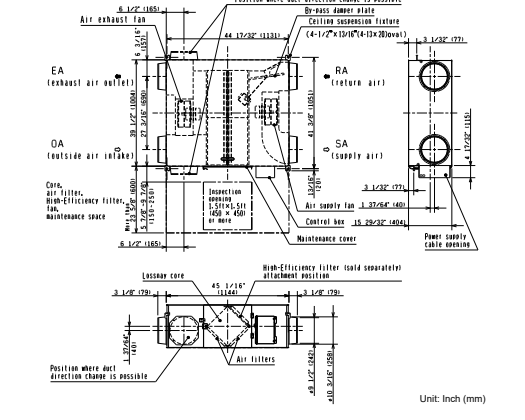
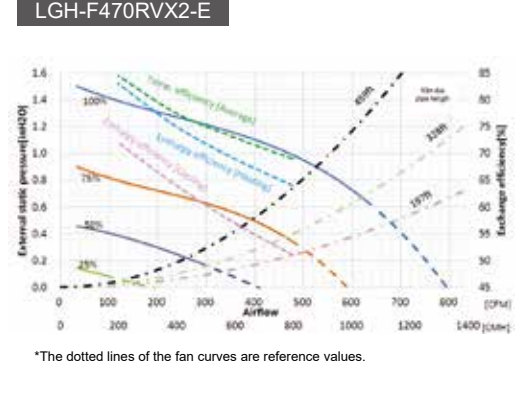
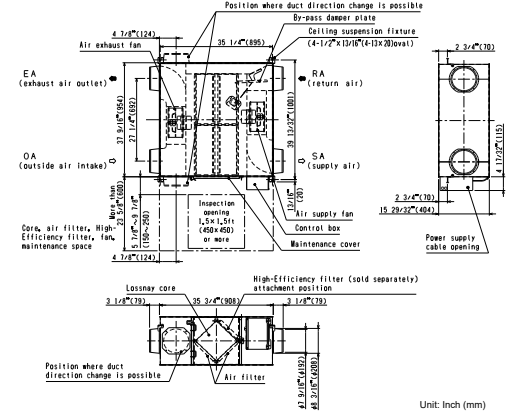
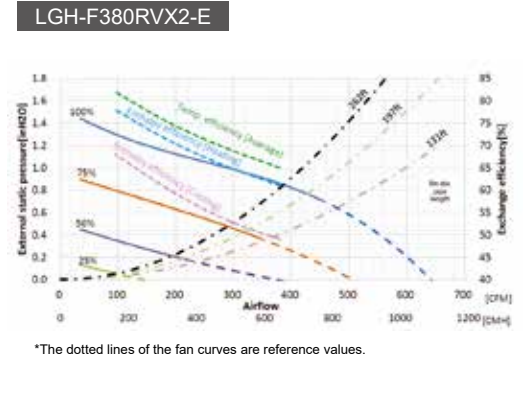
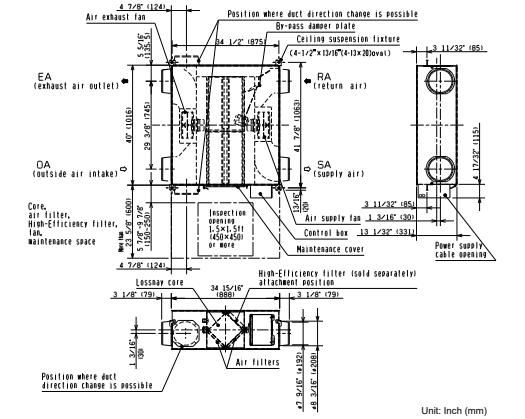
Model		LGH-F300RVX2-E				LGH-F380RVX2-E				LGH-F470RVX2-E				
Electric power supply		Single phase 208-230V 60Hz				Single phase 208-230V 60Hz				Single phase 208-230V 60Hz				
Ventilation mode		Heat recovery mode				Heat recovery mode				Heat recovery mode				
Fan speed		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%	
Input power (W)		235	111	48	17	340	165	65	20	425	220	110	47	
Airflow	(CFM)	300	225	150	75	380	285	190	95	470	353	235	118	
	(m³/h)	510	382	255	127	646	484	323	161	799	599	399	200	
Specific fan power		0.78	0.49	0.32	0.23	0.89	0.58	0.34	0.21	0.9	0.62	0.47	0.4	
External static pressure (Pa)	(InH ₂ O)	1.00	0.56	0.25	0.06	0.86	0.48	0.22	0.06	1.00	0.56	0.25	0.06	
	(Pa)	250	141	63	16	215	121	54	14	250	141	63	16	
Exchange efficiency (%)	Temperature		65.5	70.0	76.0	83.0	65.0	69.5	75.0	82.0	69.0	73.0	77.5	84.5
	Enthalpy	Heating	63.0	66.5	74.0	81.5	61.0	65.5	71.0	78.0	64.0	69.0	75.0	83.0
		Cooling	50.0	53.5	58.0	65.0	49.0	53.5	60.0	68.0	51.0	57.0	64.0	72.0
Noise (dB)		37.0	31.0	22.0	18.0	38.0	31.0	24.0	19.0	40.0	34.0	26.0	20.0	
External dimension H×W×D	in	34-15/16 x 40 x 13-1/32				35-3/4 x 37-9/16 x 15-29/32				45-1/16 x 39-1/2 x 15-29/32				
	mm	888 x 1016 x 331				908 x 954 x 404				1144 x 1004 x 404				
Weight		lbs(kg)	75 (34)				90 (41)				110 (50)			
Maximum input power (W)		565				510				725				

*The running current, the input power, the efficiency and the noise are based on the rating airflow.
*The noise is measured at 1.6 yd (1.5 m) under the center of the unit in an anechoic chamber.
*Test condition: ISO 16494
Exchange efficiency temperature and humidity condition in the exchange efficiency is based in AHRI 1060 condition.

Characteristic curve



Outline drawings



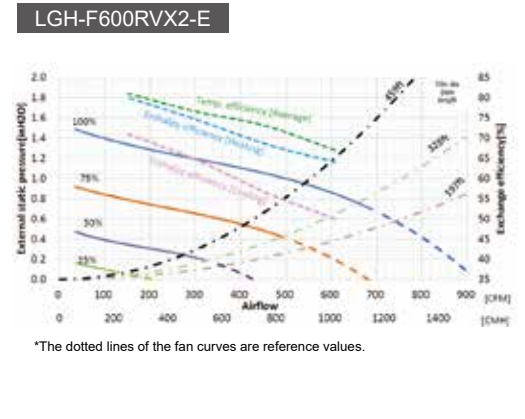
*Specifications may be subject to change without notice.

FRVX2 Series

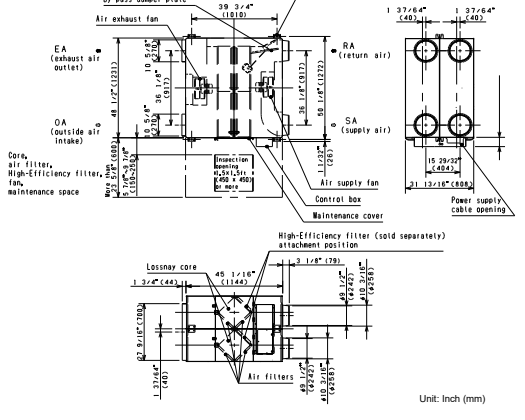
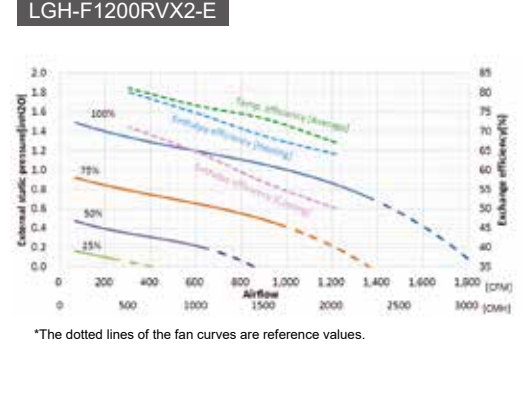
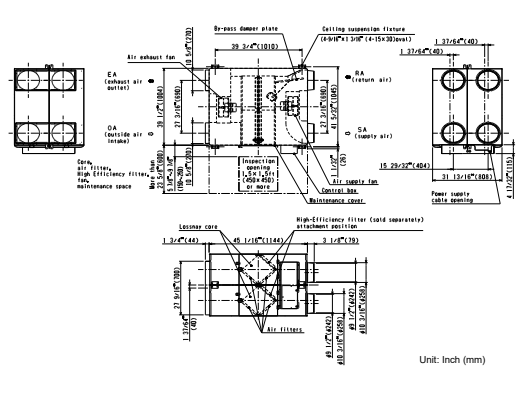
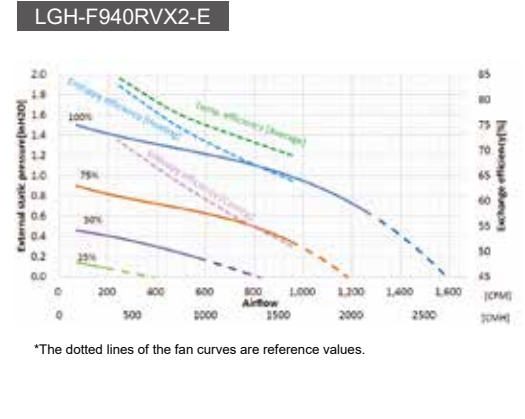
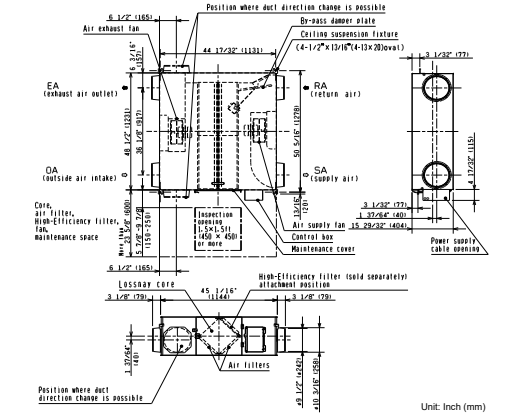
Model		LGH-F600RVX2-E				LGH-F940RVX2-E				LGH-F1200RVX2-E					
Electric power supply		Single phase 208-230V 60Hz				Single phase 208-230V 60Hz				Single phase 208-230V 60Hz					
Ventilation mode		Heat recovery mode				Heat recovery mode				Heat recovery mode					
Fan speed		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%		
Input power (W)		515	270	120	47	850	440	220	94	1030	540	240	94		
Airflow	(CFM)	600	450	300	150	940	705	470	235	1200	900	600	300		
	(m³/h)	1019	765	510	255	1597	1198	799	399	2039	1529	1019	510		
Specific fan power (W/CFM)		0.86	0.60	0.40	0.31	0.90	0.62	0.47	0.40	0.86	0.60	0.40	0.31		
External static pressure (Pa)	(InH ₂ O)	0.86	0.48	0.22	0.05	1.00	0.56	0.25	0.06	0.86	0.48	0.22	0.05		
	(Pa)	215	121	54	13	250	141	63	16	215	121	54	13		
Exchange efficiency (%)	Temperature		67.0	73.0	76.5	81.0	69.0	73.0	77.5	84.5	67.0	73.0	76.5	81.0	
	Enthalpy	Heating	64.0	68.5	74.5	80.0	64.0	69.0	75.0	83.0	64.0	68.5	74.5	80.0	
		Cooling	50.0	56.5	64.5	71.0	51.0	57.0	64.0	72.0	50.0	56.5	64.5	71.0	
Noise (dB)		41.0	35.0	27.0	20.0	43.0	36.0	28.0	20.0	43.0	37.0	28.0	20.0		
External dimension H×W×D	in	45-1/16 x 48-1/2 x 15-29/32				45-1/16 x 39-1/2 x 31-13/16				45-1/16 x 48-1/2 x 31-13/16					
	mm	1144 x 1231 x 404				1144 x 1004 x 808				1144 x 1231 x 808					
Weight		lbs(kg)				123 (56)				225 (102)				251 (114)	
Maximum input power (W)		745				1450				1490					

*The running current, the input power, the efficiency and the noise are based on the rating airflow.
*The noise is measured at 1.6 yd (1.5 m) under the center of the unit in an anechoic chamber.
*Test condition: ISO 16494
Exchange efficiency temperature and humidity condition in the exchange efficiency is based in AHRI 1060 condition.

Characteristic curve



Outline drawings



*Specifications may be subject to change without notice.

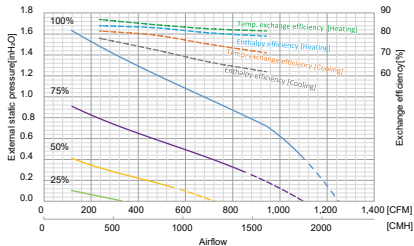
FRVXT2 Series

Model		LGH-F940RVXT2-E				LGH-F1200RVXT2-E				LGH-F1500RVXT2-E			
Electrical power supply		208-240V 3~ 60Hz				208-240V 3~ 60Hz				208-240V 3~ 60Hz			
Fan speed		4	3	2	1	4	3	2	1	4	3	2	1
Default Airflow setting		100%	75%	50%	25%	100%	75%	50%	25%	100%	75%	50%	25%
Input power (W)		641	327	132	44	1012	491	190	55	1323	644	259	86
Airflow	(CFM)	942	706	471	235	1177	883	589	294	1471	1104	736	368
	(m³/h)	1600	1200	800	400	2000	1500	1000	500	2500	1875	1250	625
Specific fan power		(W/CFM)	0.68	0.46	0.28	0.19	0.86	0.56	0.32	0.19	0.90	0.58	0.35
External static pressure	(InH₂O)	0.72	0.41	0.18	0.05	0.72	0.41	0.18	0.05	0.72	0.41	0.18	0.05
	(Pa)	180	102	45	12	180	102	45	12	180	102	45	12
Temperature exchange efficiency (%)	Heating	81.5	82.5	84.5	87.0	80.0	81.0	83.0	86.0	76.5	77.5	80.0	83.5
	Cooling	71.0	75.0	79.5	81.5	68.0	73.0	78.0	80.5	66.0	70.5	76.0	79.5
Enthalpy exchange efficiency (%)	Heating	79.0	80.5	83.0	84.0	77.0	78.5	81.5	83.0	73.5	75.0	78.0	81.0
	Cooling	62.0	66.5	72.5	78.0	59.0	63.5	70.5	76.5	57.0	61.0	66.5	74.5
Noise (dB)		38.5	32.5	25.5	19.5	40.5	35.0	28.0	20.5	42.5	38.0	31.0	23.0
Exhaust air transfer ratio (%)		5.0				5.0				5.0			
Weight		392 (178)				392 (178)				392 (178)			
Maximum input power (W)		650 - 650				1012 - 1000				1340 - 1330			

*The input power, the efficiency and the noise are based on the rating air volume, 208V/60Hz. Noise (A-weighted sound pressure level) is measured 1.6yd (1.5m) off from the center of the unit in an anechoic chamber.
*Test condition: 16494-1:2022

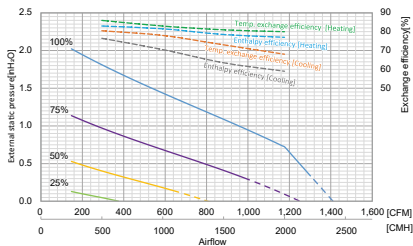
Characteristic curve

LGH-F940RVXT2-E



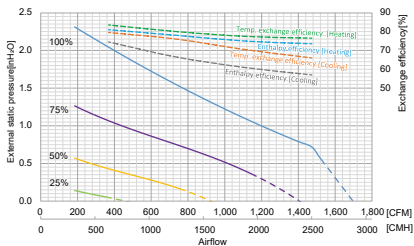
*The dotted lines of the fan curves are reference values.

LGH-F1200RVXT2-E



*The dotted lines of the fan curves are reference values.
*Don't use leader-follower control in case static pressure become more than 1.85inH₂O (460Pa).

LGH-F1500RVXT2-E



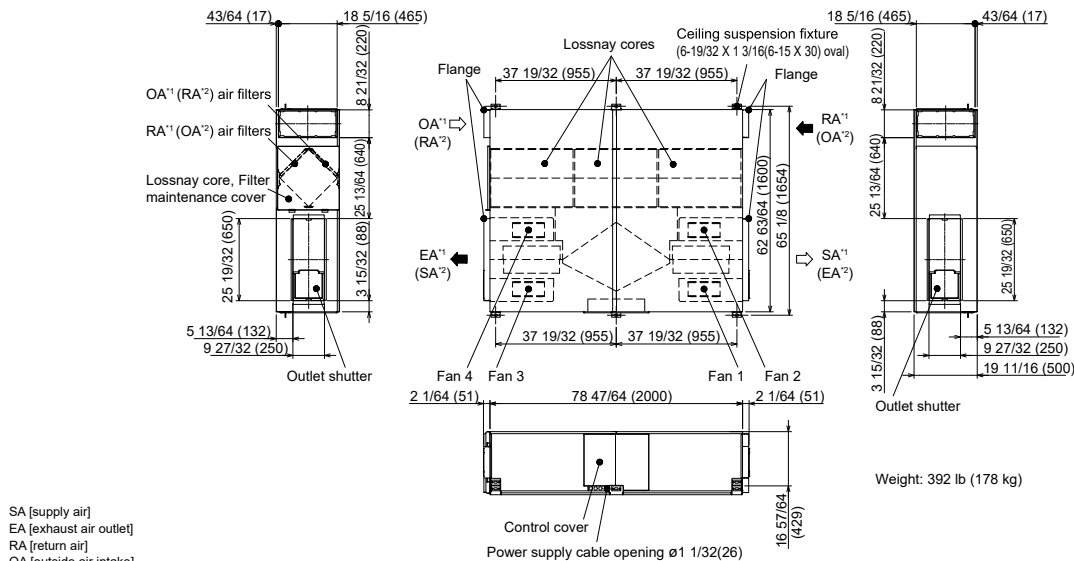
*The dotted lines of the fan curves are reference values.
*Don't use leader-follower control in case static pressure become more than 1.85inH₂O (460Pa).

Outline drawings

LGH-F940RVXT2-E

LGH-F1200RVXT2-E

LGH-F1500RVXT2-E



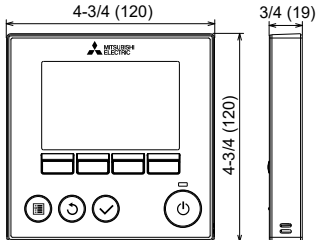
SA [supply air]
EA [exhaust air outlet]
RA [return air]
OA [outside air intake]
*1 : LR switching is OFF (Factory setting)
*2 : LR switching is ON

Weight: 392 lb (178 kg)

Unit: Inch (mm)

*Specifications may be subject to change without notice.

• Compatibility Table

Model	PZ-62DR-EA	
Image		
Dimension	 Unit inch (mm)	
Remote Controller Compatibility Table		
Model name	PZ-62DR-EA	
Compatible series	LGH-FMX	LGH-FRVX2/FRVXT2
Fan speed selection	Normal and Boost	4 fan speeds and Auto (Auto is available when using a CO2 sensor)
Control with a CO2 sensor (Mitsubishi Electric and field supply)	Yes (Fan speed automatically changes from Normal to Boost, or from 40 to 110 CFM in 10 CFM increments, depending on the CO2 concentration*)	Yes (Fan speed automatically changes from 25% to 100% depending on the CO2 concentration*)
Ventilation mode selection	Energy recovery	Energy recovery/Bypass/Auto
Night purge	No	Yes
Function setting from remote controller	Yes	
Bypass temp. free setting	No	Yes
Flexible airflow setting	No	Yes (Both supply and exhaust fan speeds can be set separately from 25% to 100% in 5% pitches)
ON/OFF timer	Yes	
Auto-off timer	Yes	
Weekly timer	Yes	
Fan speed timer	Yes	
Operation restrictions (ON/OFF, ventilation mode, fan speed)	Yes	
Operation restrictions (fan speed skip setting)	Yes	
Screen contrast adjustment	Yes	
Language selection	Yes (11 languages)	
CO2 concentration indication (Mitsubishi Electric and field supply)	Yes	
Filter cleaning sign	Yes (Maintenance interval can be changed)	
LOSSNAY core cleaning sign	No	Yes
Error indication	Yes (Displays model name, serial number, contact information)	
Error history	Yes	
OA/RA/SA temp. display	Only OA	Yes

*When using a CO2 sensor. Upper and lower limits may differ.

CO₂ Sensors

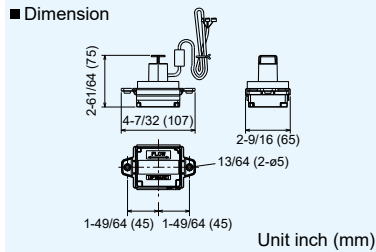
A CO₂ Sensor connected directly to LOSSNAY FMX/FRVX2/FRVX2T unit optimizes the fan speed according to the level of CO₂ detected.

<Duct-mounted type> PZ-70CSD-E



Equipped to ducting, which enables all wiring procedure in the ceiling.

■ Dimension

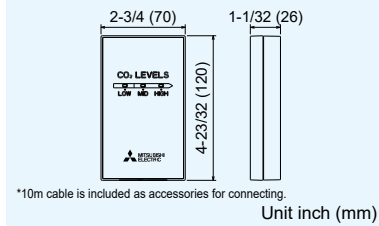


<Wall-mounted type> PZ-70CSW-E



Equipped on the wall. CO₂ level can be monitored in 3 steps.

■ Dimension



*10m cable is included as accessories for connecting.

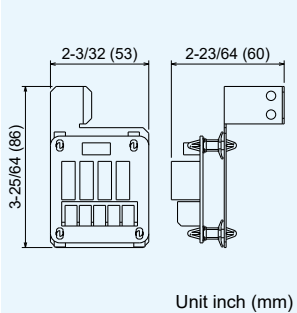
Signal Output Terminal

PZ-4GS-E

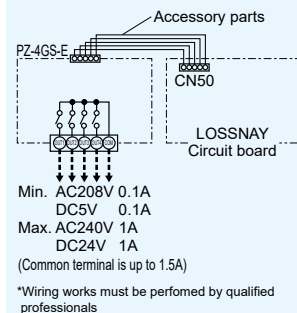


FRVX2/FRVXT2's PCB has only 1 output terminal. By using PZ-4GS-E, it allows to add 4 more output terminals to FRVX2.

■ Dimension



■ Wiring diagram



Duct Silencer



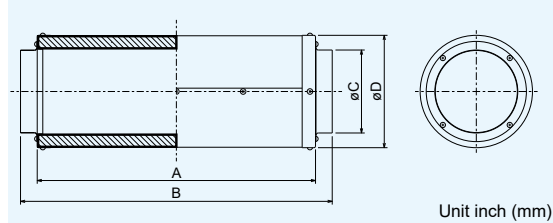
The duct silencer connects to the LOSSNAY unit to reduce airflow noise.

■ Specifications

Model	Airflow [CFM (m ³ /h)]	Attenuation of sound power level [dB] for center frequency (discharge)							
		62.5Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
PZ-200SS-E	294CFM (500m ³ /h)	0	1	4	7	13	18	16	9
	382CFM (650m ³ /h)	0	1	3	8	12	17	14	6
PZ-250SS-E	470CFM (800m ³ /h)	0	2	4	12	22	21	14	13
	588CFM (1,000m ³ /h)	0	1	4	12	22	20	14	13

- Figures on the chart above are based on the comparison with a general steel duct of the same length.
 - The silencer is placed just before the outlet during the measurement.
 - When the airflow rate differs, the attenuation is also different from the chart above.
 - Figures on the chart above are flat (No-weighted) value.
- Certain ratings and specifications may change due to product improvements or modifications.

■ Dimensions



■ Change dimension table (Unit: inch (mm))

Model	A	B	C	D	Connectable Duct	Weight lbs (kg)
PZ-200SS-E	23-5/8 (600)	25-63/64 (660)	7-53/64 (199)	9-59/64 (252)	ø8 (ø200)	12 (5.3)
PZ-250SS-E	23-5/8 (600)	25-63/64 (660)	9-51/64 (249)	13-5/64 (332)	ø10 (ø250)	20 (8.9)

List of optional parts

Optional Parts		LOSSNAY	F110MX	F300/380RVX2	F470/600/940/1200RVX2	F940/1200/1500RVXT2
Remote Controller	PZ-62DR-EA		●	●	●	●
CO ₂ Sensor	PZ-70CSD-E		●	●	●	●
	PZ-70CSW-E		●	●	●	●
Silencer Duct	PZ-200SS-E			●		
	PZ-250SS-E				●	
Signal Output Terminal	PZ-4GS-E			●	●	●

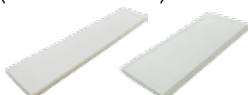
Filter

■ Line up and Classification

LOSSNAY			Filter				
Model	Filter		Name	Model	Material	Classification	
	Standard Setting	Optional Setting				ASHRAE 52.2:2017	ISO 16890: 2016
 LGH-FMX series*	●		Standard Filter (MERV10 Filter)	PZ-F110RF-E	Synthetic fiber	MERV10	-
		●	High Efficiency Filter (MERV14 Filter)	PZ-F110MF-E	Synthetic fiber	MERV14	-
 LGH-FRVX2 series	●		Standard Filter (MERV7 Filter)	PZ-**RF9-E	Non-woven fabric	MERV7	-
		●	High Efficiency Filter (MERV14 Filter)	PZ-**RFP-E	Non-combustible fiber	MERV14	ePM10 70%
		●	Advanced HighEfficiency Filter (MERV16 Filter)	PZ-**RFP2-E	Synthetic fiber	MERV16	ePM1 75%, ePM2.5 80%, ePM10 95%
 LGH-FRVXT2 series	●		Standard Filter (MERV7 Filter)	PZ-250TRFA-E	Non-woven fabric	MERV7	-
		●	Advanced HighEfficiency Filter (MERV16 Filter)	PZ-250TPF-E	Synthetic fiber	MERV16	ePM1 75%, ePM2.5 80%, ePM10 95%

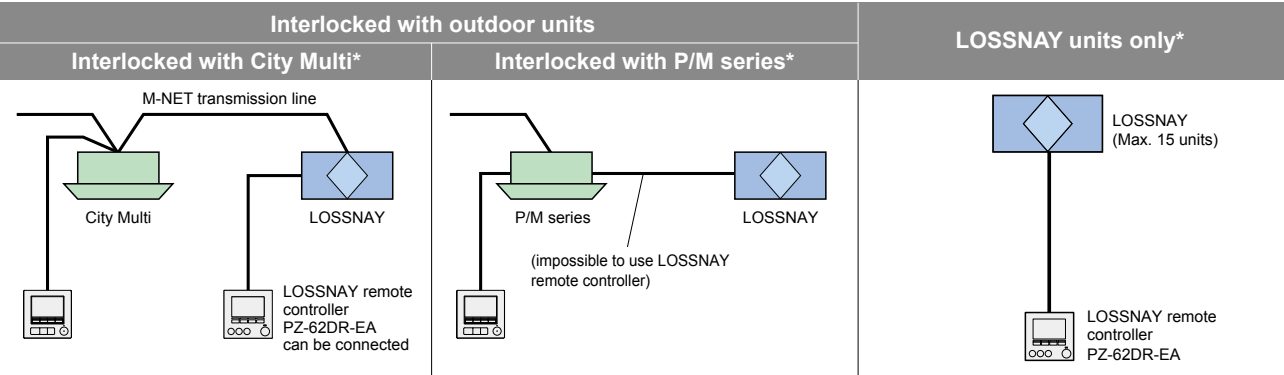
*The image shown is of LGH-F110MXL-E.

■ Model and Applicable Product

Filter							Purchase number for replacement	Installation location			
Image	Model	Applicable model	Dimension inch (mm)			Pieces in one package		Number of filters			
			L	W	H			OA	RA	SA	
Standard Filter (MERV10 Filter) 	PZ-F110RF-E	LGH-F110MXL-E	11-29/64 (291)	8-27/64 (214)	25/32 (20)	2	1	2	1	1	-
		LGH-F110MXR-E									
High Efficiency Filter (MERV14 Filter) 	PZ-F110MF-E	LGH-F110MXL-E	11-29/64 (291)	8-27/64 (214)	25/32 (20)	2	1	2	1	1	-
		LGH-F110MXR-E									
Standard Filter (MERV7 Filter) 	PZ-50RF9-E	LGH-F300RVX2-E	18-1/2 (470)	7-13/64 (183)	25/32 (20)	4	1	4	2	2	-
	PZ-65RF9-E	LGH-F380RVX2-E	17-3/64 (433)	8-37/64 (218)	25/32 (20)	4	1	4	2	2	-
	PZ-80RF9-E	LGH-F470RVX2-E	17-3/4 (451)	9-9/16 (243)	25/32 (20)	4	1	4	2	2	-
		LGH-F940RVX2-E					2	8	4	4	-
	PZ-100RF9-E	LGH-F600RVX2-E	22-1/4 (565)	9-9/16 (243)	25/32 (20)	4	1	4	2	2	-
		LGH-F1200RVX2-E					2	8	4	4	-
High Efficiency Filter (MERV14 Filter) 	PZ-50RFP-E	LGH-F300RVX2-E	18-17/64 (464)	6-57/64 (175)	63/64 (25)	2	1	2	-	-	2
	PZ-65RFP-E	LGH-F380RVX2-E	16-13/16 (427)	8-15/64 (209)	63/64 (25)	2	1	2	-	-	2
	PZ-80RFP-E	LGH-F470RVX2-E	17-9/16 (446)	9-19/64 (236)	63/64 (25)	2	1	2	-	-	2
		LGH-F940RVX2-E					2	4	-	-	4
	PZ-100RFP-E	LGH-F600RVX2-E	22-1/64 (559)	9-19/64 (236)	63/64 (25)	2	1	2	-	-	2
		LGH-F1200RVX2-E					2	4	-	-	4
Advanced High Efficiency Filter (MERV16 Filter) 	PZ-50RFP2-E	LGH-F300RVX2-E	18-17/64 (464)	6-57/64 (175)	63/64 (25)	2	1	2	-	-	2
	PZ-65RFP2-E	LGH-F380RVX2-E	16-13/16 (427)	8-15/64 (209)	63/64 (25)	2	1	2	-	-	2
		LGH-F470RVX2-E	17-9/16 (446)	9-19/64 (236)	63/64 (25)	2	1	2	-	-	2
	PZ-100RFP2-E	LGH-F940RVX2-E					2	4	-	-	4
		LGH-F600RVX2-E	22-1/64 (559)	9-19/64 (236)	63/64 (25)	2	1	2	-	-	2
	LGH-F1200RVX2-E					2	4	-	-	4	
Standard Filter (MARV7 Filter) 	PZ-250TRFA-E	LGH-F940RVXT2-E	39 11/64 (995)	11 7/32 (285)	25/32 (20)	4	1	4	2	2	-
		LGH-1200RVXT2-E									
LGH-1500RVXT2-E											
Advanced High Efficiency Filter (MARVE16 Filter) 	PZ-250TPF-E	LGH-F940RVXT2-E	Single 26 7/64 (663)	Single 11 17/64 (286)	Single 63/64 (25)	2	1	2	-	-	1
		LGH-1200RVXT2-E	Jointed 52 1/4 (1327)	Jointed 11 17/64 (286)	Jointed 63/64 (25)				-	-	1
		LGH-1500RVXT2-E									

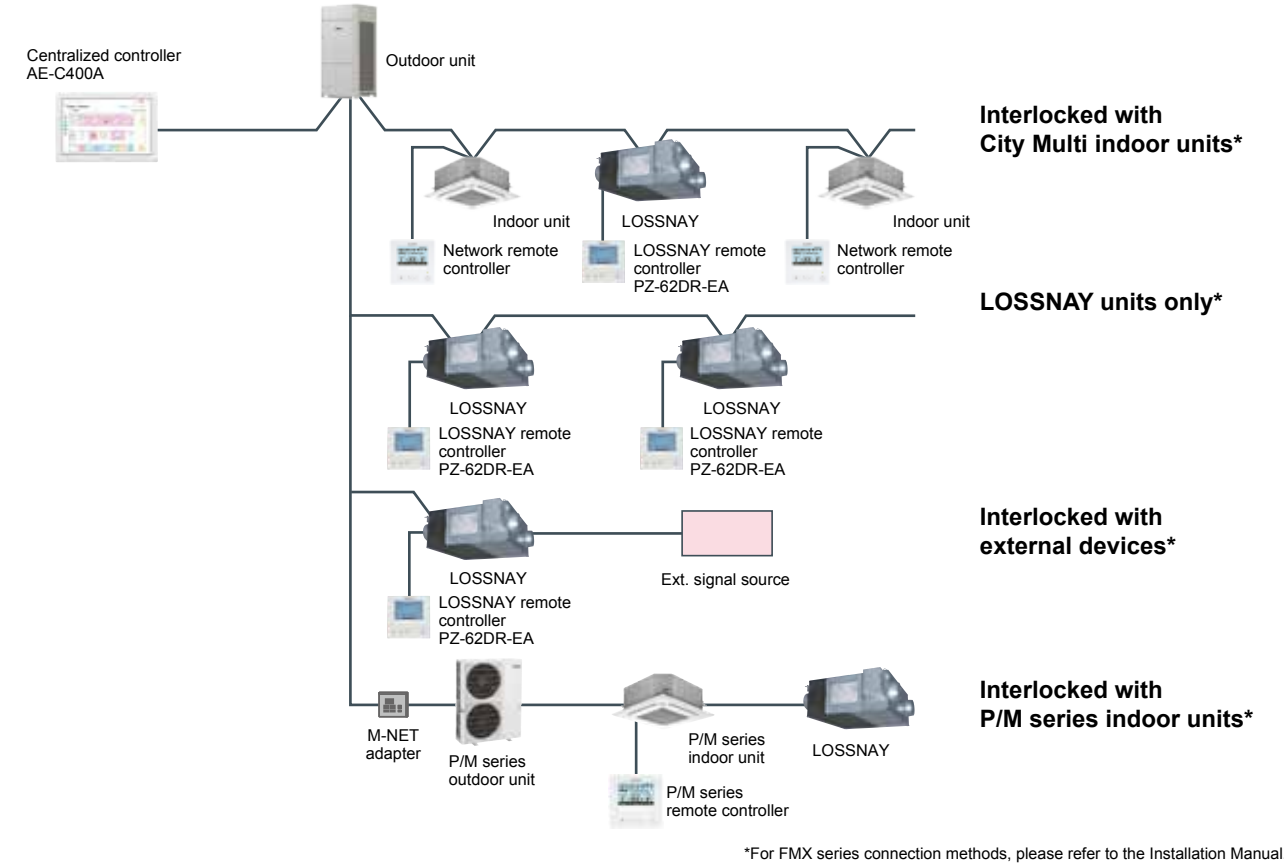
Control setting

• Simple control setting with PZ-62DR-EA remote controller



*For FMX series connection methods, please refer to the Installation Manual.

Centralized controller system



*For FMX series connection methods, please refer to the Installation Manual.

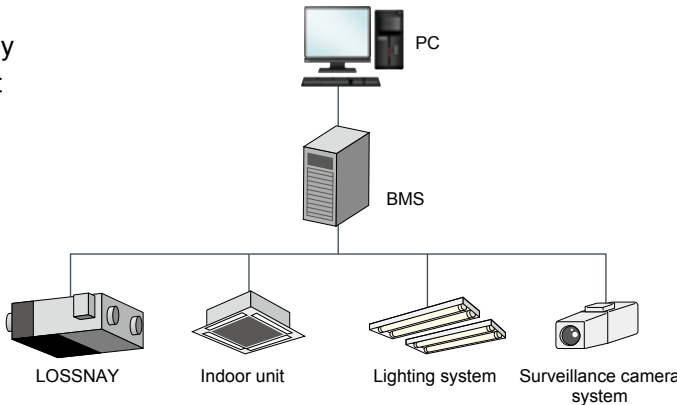
Control with a BMS

The airflow of the LOSSNAY unit can be changed by using a 0-10V signal from the building management system.

Connection example: BMS (Building Management System)

Input voltage [VDC]	Fan speed	Fan speed change from remote controller
0 - 1.0	-	Available
1.5 - 2.5	1	Not available
3.5 - 4.5	2	Not available
5.5 - 7.0	3	Not available
8.5 - 10.0	4	Not available

*This function is applicable to Commercial LOSSNAY (FVRX2/FRVXT2 series).



Remote Controller

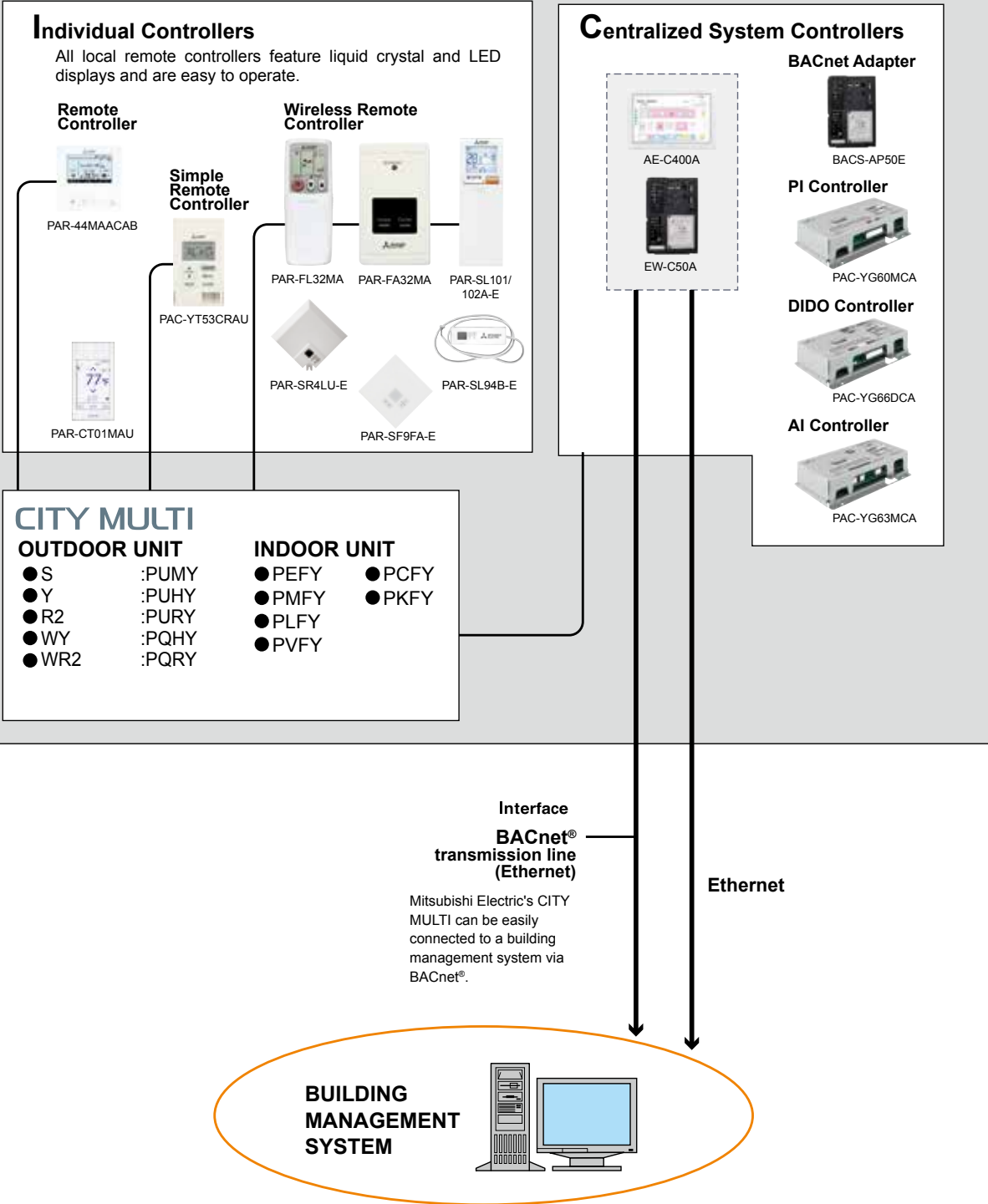
System Controller

Mitsubishi Electric's controls network provides system management through a PC browser in a network-based environment.

CONTROLS NETWORK

Use of Mitsubishi Electric's control products enhances the efficiency and quality of the system, contributing to energy savings and reduction in running cost. A wide variety of controls are available to meet all requirements - from the smallest and simplest to the largest and most complex.

Mitsubishi Electric offers a wide lineup of individual remote controllers, various centralized controllers, and centralized integrated software, as well as BMS interface hardware and software, etc. Above all, with AE-C400A/EW-C50A, PC browser and long distance remote control (monitoring and operating) via communication network is possible and easy.



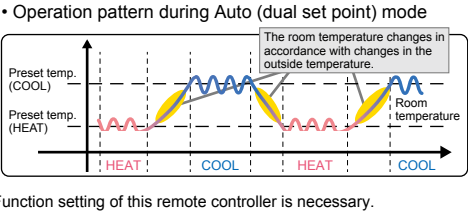
*Some controllers cannot be used in combination with certain models of devices.

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

Model	Local remote controller *4				
	PAR-CT01MAU	PAR-44MAACAB	PAC-YT53CRAU	PAR-FL32MA	PAR-SL101A-E
Controllable Groups/Indoors (Group/Indoor) *3	1/16	1/16	1/16	1/16	1 / 1
■Operation					
ON/OFF	○	○	○	○	○
Mode (cool/heat/dry/fan/auto)	○	○	○	○	○
Mode (Setback) *5	○	○	○	N	○
Temperature setting	○	○	○	○	○
Dual set point *6	○	○	○	N	○ *7
Local Permit/Prohibit	N	N	N	N	N
Fan speed	○	○	○	○	○
Air flow direction	○	○	○	○	○
■Status monitoring					
ON/OFF	○	○	○	○	○
Mode (cool/heat/dry/fan)	○	○	○	○	○
Temperature setting	○	○	○	○	○
Local Permit/Prohibit	○	○	○	N	N
Fan speed	○	○	○	○	○
Air flow direction	○	○	○	○	○
Indoor temperature	○	○	○	N	N
Filter sign	○	○	N	N	N
Error flashing	○	○	○	N	N
Error code	○	○	○	N	N
Operation hour	N	N	N	N	N
■Scheduling					
One day	○	○	N	N	N
ON/OFF times per day	1	1	N	1	1
Weekly	○	○	N	N	N
ON/OFF times per week	8 x 7	8 x 7	N	N	N
Annual	N	N	N	N	N
Optimized start-up	N	N	N	N	N
Auto-OFF timer	○	○	N	N	N
Min. timer setting unit (minute)	5	5	N	10	10
■Recording					
Error log	○	○	N	N	N
Daily/monthly report	N	N	N	N	N
Electricity charge	N	N	N	N	N
Energy management data	N	N	N	N	N
■Other					
Temp-set limitation by Local R/C	○	○	○	N	N
Operation lock	○	○	○	N	N
Night setback	N	N	N	N	N
Sliding temperature control	N	N	N	N	N
■Management (Group/Interlocked)					
Ventilation interlock	N / ○	N / ○	N / ○	N	N
Group setting	○ *1	○ *1	○ *1	N	N
Block setting	N	N	N	N	N
Review of electricity charge	N	N	N	N	N
■Operating on LOSSNAY interlocked (Group/Interlocked)					
ON/OFF	N / ○	N / ○	N / ○	N / ○ *2	N / ○ *2
Fan speed	N / ○	N / ○	N	N	N
Ventilation mode	N / N	N / N	N	N	N
■Status monitoring on LOSSNAY interlocked (Group/Interlocked)					
ON/OFF	N / ○	N / ○	N / ○	N	N
Fan speed	N / ○	N / ○	N	N	N
Ventilation mode	N	N	N	N	N

○: Each group N: Not Available (Not Used.)

*1. Group setting via wiring between Indoor units with cross-over cable;
*2. Interlock is set from system controllers (Except PAC-YT40ANRA) or local remote controllers.
*3. The maximum number of controllable units decreases depending on the indoor unit model.
*4. For indoor use only.
*5. This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group features said function.
*6. Icon When the operation mode is set to Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, the indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.
This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group features said function. Contact your local distributor for details.



Model	System controller *4					
	AE-C400A		AE-C400A+EW-C50A		EW-C50A	
	50/50		400/400		50/50	
Controllable Groups/Indoors (Group/Indoor) *3	AE-C400A	Browser	AE-C400A	Browser	EW-C50A	Browser
■Operation						
ON/OFF	● ■	● ■	● ■	● ■	▲	● ■
Mode (cool/heat/dry/fan/auto)	● ■	● ■	● ■	● ■	N	● ■
Mode (Setback) *5	● ■	● ■	● ■	● ■	N	● ■
Temperature setting	● ■	● ■	● ■	● ■	N	● ■
Dual set point *6	● ■	● ■	● ■	● ■	N	○ ●
Local Permit/Prohibit	● ■	● ■	● ■	● ■	N	● ■
Fan speed	● ■	● ■	● ■	● ■	N	● ■
Air flow direction	● ■	● ■	● ■	● ■	N	● ■
■Status monitoring						
ON/OFF	○	○	○	○	▲	○
Mode (cool/heat/dry/fan)	○	○	○	○	N	○
Temperature setting	○	○	○	○	N	○
Local Permit/Prohibit	○	○	○	○	N	○
Fan speed	○	○	○	○	N	○
Air flow direction	○	○	○	○	N	○
Indoor temperature	○	○	○	○	N	○
Filter sign	○	○	○	○	N	○
Error flashing	○	○	○	○	▲	○
Error code	○	○	○	○	N	○
Operation hour	N	N	N	N	N	N
■Scheduling						
One day	● ■	● ■	● ■	● ■	N	● ■
ON/OFF times per day	24	24	24	24	N	24
Weekly	● ■	● ■	● ■	● ■	N	● ■
ON/OFF times per week	24 x 7	24 x 7	24 x 7	24 x 7	N	24 x 7
Annual	● ■	● ■	● ■	● ■	N	● ■
Optimized start-up	○	○	○	○	N	○
Auto-OFF timer	N	N	N	N	N	N
Min. timer setting unit (minute)	1	1	1	1	N	1
■Recording						
Error log	○	○	○	○	N	○
Daily/monthly report	N	N	N	N	N	N
Electricity charge	N	N	N	N	N	N
Energy management data	N	●	N	●	N	●
■Other						
Temp-set limitation by Local R/C	N	N	N	N	N	N
Operation lock	N	N	N	N	N	N
Night setback	○	○ *1	○	○ *1	N	○ *1
Sliding temperature control	○	○ *1	○	○ *1	N	○ *1
■Management (Group/Interlocked)						
Ventilation interlock	○	○ / ○ *1	○	○ / ○ *1	N	○ / ○ *1
Group setting	○	○ *1	○	○ *1	N	○ *1
Block setting	○	○ *1	○	○ *1	N	○ *1
Review of electricity charge	N	N	N	N	N	N
■Operating on LOSSNAY interlocked (Group/Interlocked)						
ON/OFF	○ / ○	○ / ○	○ / ○	○ / ○	▲ / ▲	○ / ○
Fan speed	○ / ○	○ / ○	○ / ○	○ / ○	N / N	○ / ○
Ventilation mode	○ / N	○ / N	○ / N	○ / N	N / N	○ / N
■Status monitoring on LOSSNAY interlocked (Group/Interlocked)						
ON/OFF	○ / ○	○ / ○	○ / ○	○ / ○	▲ / ▲	○ / ○
Fan speed	○ / ○	○ / ○	○ / ○	○ / ○	N / N	○ / ○
Ventilation mode	○ / N	○ / N	○ / N	○ / N	N / N	○ / N

●: Each group/Batched ○: Each group ●: AE-C400A/EW-C50A license registration possible. N: Not Available (Not Used.) ▲: Batched▲ndling (for maintenance) ■: Block

*1. Installation possible at Initial setting web browser;

*2. Interlock is set at Local remote controller.

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

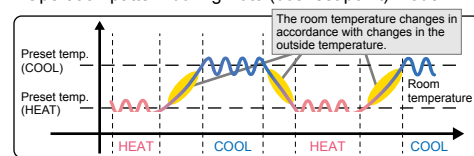
*4. For indoor use only.

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

*6. Icon Indication:  When the operation mode is set to Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, the indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.

This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group features said function. Contact your local distributor for details.

• Operation pattern during Auto (dual set point) mode



*7. Please contact your local distributor regarding the availability of this function.

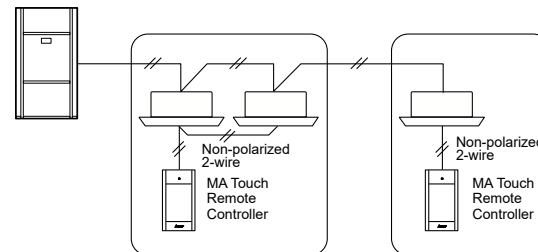
MA Touch Remote Controller



PAR-CT01MAU-SB

Dimensions: 2-9/16(W) x 4-3/4(H) x 9/16(D) in.
: 65(W) x 120(H) x 14.1(D) mm

• Example of system configuration



*When a PAR-CT01MAU is connected to a group, no other MA remote controllers can be connected to the same group.
*In case of the refrigerant leakage, other error histories are not displayed.

• Multiple color patterns

180 color patterns can be selected for the control parameters and the background of the display.



• Available in a wide variety of colors to suit the decor of any room.



• Language selection

The screen's display language can be selected from 3 languages. (English, French, Spanish)

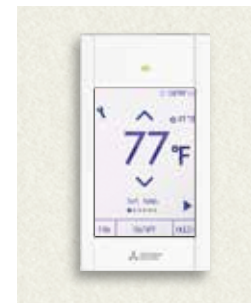
• Full color touch panel & backlit display

Large icons ensure visibility on the full-color touch panel display.



Touch Panel

3.5 inch/HVGA Full Color LCD



• Operation panels



Temperature setting



Operation mode



Fan speed



Vane control



Ventilation



Louver control

• Bluetooth® low energy technology

The remote controller can communicate with a smartphone or tablet device via Bluetooth Low Energy. User and setting apps are available.

* Bluetooth® is a trademark of Bluetooth SIG, Inc. in the U.S.
* Contact a Bluetooth sales company for information on the Bluetooth function.



To download the app, scan the QR code. *QR code is a registered trademark of DENSO WAVE INCORPORATED.

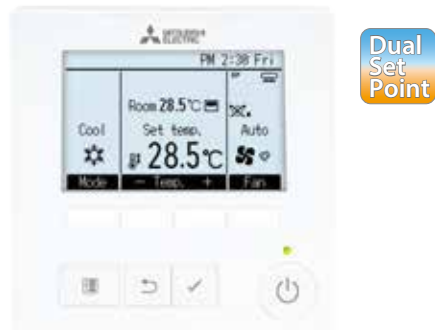
*1 The app may not function properly on some mobile devices.

• Functions

○: Available X: Not available

Item	Description	Setting	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool/Dry/Fan/Auto/Heat.	○	○
Hold	Switches between enable and disable the Hold function. If the Hold function is enable, the following functions will be prohibited. Timer/Schedule (Weekly timer) /Auto return/Auto-OFF timer	○	○
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	○	○
Louver setting	Switches between louver ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with CITY MULTI LOSSNAY units can be performed. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Error information	When an error occurs, an error code and the unit address appear. Air conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The information above needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, fan speed, air direction, and filter sign reset. * While an operation is prohibited, the operation icon lights up (only on the Main display in "Full" mode).	X	○
Operation lock	The following operations can be prohibited: "Location," "On/Off," "Mode," "Set temp.," "Menu," "Fan," "Louver," or "Vane."	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 minutes in 10-minute increments.) * Not valid when the temperature setting range is restricted.	○	X
Daylight saving time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the settings.	○	X
Weekly timer	Weekly ON/OFF times and set temperatures can be set. • Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Bluetooth connection, Bluetooth, Screen update	The Bluetooth connection information can be acquired. Using an Application, a logo image as well as settings data can be sent to the remote controller.	○	○

Wired MA Remote Controller



PAR-44MAACAB

Dimensions: 4-23/32(W) x 4-23/32(H) x 37/64(D) in.
: 120(W) x 120(H) x 14.5(D) mm

• Backlit LCD (Liquid Crystal Display)

Large, easy-to-see display.

The screen background can be changed to black to suit the ambience of the room.

• 3D i-see Sensor*

Settings can be made for the 3D i-see Sensor.

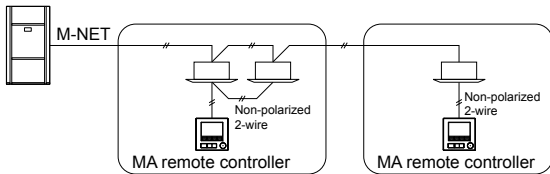
• Draft reduction*

"Close" has been added to the manual vane angle selection. The air outlet can be closed to reduce drafts from the unit.

• Auto descending panel*

Panels can be lowered/raised using the remote controller. Panel position can also be selected from a number of patterns.

*Availability of the function depends on the indoor unit model. Contact your local distributor for details.

• Example of system configuration

*When a PAR-44MAAUB/PAR-44MAACAB is connected to a group, no other MA remote controllers can be connected to the same group.

• Functions

○: Available X: Not available

Item	Description	Setting	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool/Dry/Fan/Auto/Setback/Heat.	○	○
Hold	Switches between enable and disable the Hold function. If the Hold function is enable, the following functions will be prohibited. ON/OFF timer/Schedule (Weekly timer) /Auto return/Auto-OFF timer	○	○
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Louver setting	Switches between louver ON/OFF.	○	○
Ventilation equipment control	Interlocked setting and interlocked operation setting with CITY MULTI LOSSNAY units can be performed. The Stop/Low/High settings of the ventilation equipment can be controlled.	○	○
Error information	When an error occurs, an error code and the unit address appear. The air-conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The above information needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode, set temperature, filter sign reset, air direction, fan speed and timer. * While an operation is prohibited, the operation icon lights up (only on the Main display in the "Full" mode).	X	○
Operation lock	The following operations can be prohibited: "Location," "On/Off," "Mode," "Set temp.," "Menu," "Fan," "Louver," or "Vane."	○	○
Temperature range restriction	The room temperature range for each operation mode can be restricted.	○	○
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 minutes in 10-minute increments.) * Not valid when the temperature setting range is restricted.	○	X
Daylight saving time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the setting contents.	○	X
Refrigerant leakage error	An alarm buzzer sounds when refrigerant leakage is detected.	X	○

• Circuit Check

The PAR-44MAAUB/PAR-44MAACAB features an alarm function. The interlock inspection includes circuit checks, which can be performed using the remote controller.

• Alarm

Alerts when a refrigerant leak is detected.

Wireless Remote Controller



PAR-FL32MA
Dimensions: 2-5/16(W) x 6-5/16(H) x 3/4(D) in.
: 58(W) x 159(H) x 19(D) mm



PAR-SL101/A-E
Dimensions: 2-5/8(W) x 7-13/32(H) x 7/8(D) in.
: 66(W) x 188(H) x 22(D) mm



PAR-FA32MA/PAR-SA9CA-E
Dimensions: 2-3/4(W) x 4-3/4(H) x 7/8(D) in.
: 70(W) x 120(H) x 22.5(D) mm



PAR-SR4LU-E
(4-way cassette signal receiver)
Dimensions: 7-5/16(H) x 1-5/32(D) in.
: 185(H) x 29(D) mm



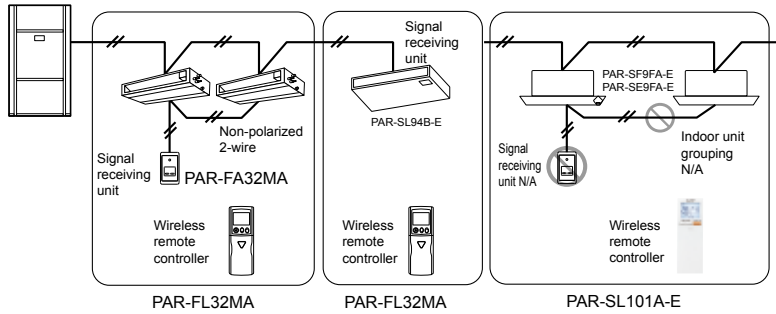
PAR-SF9FA-E
(2 x 2 cassette signal receiver)
Dimensions: 8-7/16(H) x 1-1/32(D) in.
: 214(H) x 25.5(D) mm



PAR-SL94B-E
(Wireless remote controller kit for ceiling suspended type)
Dimensions: 7-3/16(W) x 2-1/4(H) x 1-1/4(D) in.
: 182(W) x 57(H) x 31(D) mm

- **No need to configure addresses for group operation.**
- **The LED remains lit to show operation status. It also provides error information via the number of blinks.**
- **Can be used with the MA remote controller.**
 - *When used in group configurations, wiring is required between indoor units.
 - *LOSSNAY remote controllers cannot be combined in the same group.
- **Multiple indoor units cannot be controlled with the PAR-SL101/A-E. Only one indoor unit can be used in each group.**
PAR-FL32MA-E can use on multiple indoor system, but not use with other remote controllers within same group.
- **LCD temperature setting and display in 1°C/1°F increments.**

• System configuration example



City Multi R32/R454B Compatibility IDU

	Wireless remote controller	Wireless signal receiver		Wireless remote controller	Wireless signal receiver
PLFY-EM	PAR-SL101/A-E *1	PAR-SR4LU-E	PKFY-M NKMU	PAR-SL101/A-E *1,2	Built in as standard
	PAR-FL32MA-E *2	PAR-SR4LU-E/PAR-FA32MA		PAR-FL32MA-E *2	Built in as standard/PAR-FA32MA
PLFY-M	PAR-SL101/A-E *1,2	PAR-SF9FA-E	PEFY-M	PAR-SL101/A-E *1,2	PAR-SA9CA-E
	PAR-FL32MA-E *2	PAR-SF9FA-E/PAR-FA32MA		PAR-FL32MA-E *2	PAR-FA32MA
PMFY-M	PAR-SL101/A-E *1,2	Built in as standard	PVFY-M	PAR-SL101/A-E *1,2	PAR-SA9CA-E
	PAR-FL32MA-E *2	Built in as standard		PAR-FL32MA-E *2	PAR-FA32MA
PCFY-M	PAR-SL101/A-E *1,2	PAR-SA92MW-E/PAR-SL93B-E			
	PAR-FL32MA-E *2	PAR-FA32MA/PAR-SA92MW-E/PAR-SL93B-E			
PKFY-M NLMU	PAR-SL101/A-E *1,2	Built in as standard			
	PAR-FL32MA-E *2	Built in as standard/PAR-FA32MA			

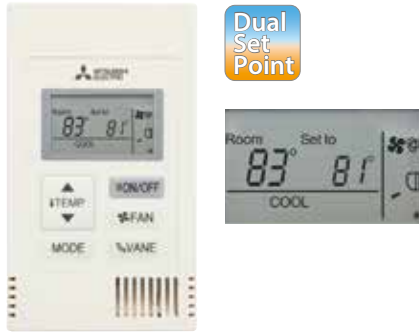
*1 PAR-SL101/A-E is required to use the direct/indirect setting and individual vane setting.
*2 Use either PAR-SL101/A-E or PAR-FL32MA to control each indoor unit, not both.
*3 Multiple indoor units cannot be controlled with the PAR-SL101/A-E. Only one indoor unit can be used in each group.

• Functions

○ : Available × : Not available

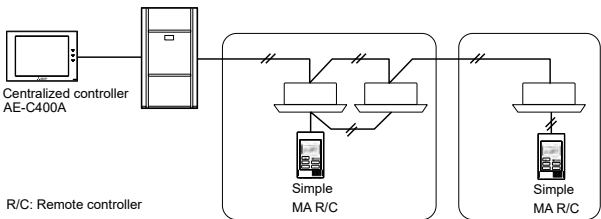
Item	Description	Setting	Display
ON/OFF	ON and OFF operation for a single group	○	○
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	○	○
Air flow direction setting	Air flow direction angles (4-angle, Swing) Auto Louver ON/OFF. Air flow direction settings vary depending on the model. *1 Some models will have a different display for the air flowdirection and fan speed. Set the air-flow direction and fan speed when performing initial settings.	○*1	○*1
Timer operation	One ON/OFF setting can be set per day.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (ON/OFF, Change operation mode, Set temperature, Reset filter). *2 If operation is performed when the local remote controller inactivation command is received from the main system controller, a buzzer will sound and an LED will flash.	×	○*2

Simple Remote Controller



PAC-YT53CRAU (MA)
Dimensions: 2-3/4(W) x 4-3/4(H) x 19/32(D) in.
: 70(W) x 120(H) x 14.5(D) mm

• System configuration example



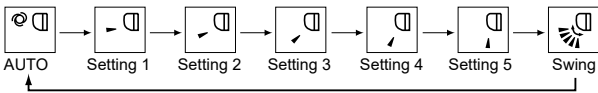
- **Dual set point**
When the operation mode is set to Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, the indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.
*Contact your Mitsubishi Electric sales office for details.

- **Backlit LCD**
Backlight for operation in dark places

- **Flat back**
The remote controller can be installed without making a hole in the wall.
Thickness is less than 19/32 in (14.5 mm).

- **Vane button (standard)**
The Vane button has been added to allow users to change airflow direction (ceiling cassette and wall mounted types).

Pressing the  button changes the vane direction.



*The vane directions that can be set vary depending on the indoor unit model.
*If the unit has no vane function, vane direction cannot be set.
In this case, the vane icon blinks when the  button is pressed.

- **Only cross-over wiring is required, based on two-wire signal lines.**
- **Room temperature sensors are built in.**
- **Compatible with all types of indoor units**
*As this controller has limited functions, it should always be used in conjunction with a standard controller or centralized controller.
- **LCD temperature setting and display in 1°F/1°C increments**

• Functions

○ : Available × : Not available

Item	Description	Setting	Display
ON/OFF	Changes between ON and OFF.	○	○
Operation mode switching	Select from COOL, DRY, FAN, AUTO, Setback, and HEAT. * Auto mode and Setback mode are for CITY MULTI R2, H2i R2, and WR2-Series only.	○	○
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	○	○
Fan speed setting	Changes the fan speed. * The settable fan speed varies depending on the indoor unit model to be connected.	○	○
Permit / Prohibit local operation	By setting a centralized controller, the following local operations can be prohibited: ON/OFF, operation mode, preset temperature; * The CENTRAL icon appears while local operations are prohibited.	×	○
Error	Displays the current error status with the address. * The address may not be displayed depending on the error status.	—	○
Ventilation equipment	When the CITY MULTI indoor unit is connected, interlocked setting of the CITY MULTI LOSSNAY unit is possible.	○	○
Set temperature range limit	The preset temperature range can be restricted for each operation mode (COOL/HEAT/AUTO).	○	○

Centralized controller with a large colour LCD touch panel



AE-C400A

Dimensions: 306(W) x 211(H) x 71.8(D) mm
(12-1/16(W) x 8-5/16(H) x 2-27/32(D) in)

12.1-in colour LCD touch panel with backlight

A 12.1-in high resolution colour LCD improves visibility. The panel has a backlight to enable operations in a dark room. It can be operated by lightly touching the screen with a finger.

Centralized control from a Web browser

System and equipment can be operated and monitored using a personal computer, tablet, or smartphone connected to the Internet by LAN at the same convenience as visiting a Web page.



• Operation/monitoring screen

The AE-C400A features a new GUI* with a revamped icon design for clearer visual operation. Additionally, it provides a unified display across both the LCD and Web browser, allowing for consistent operation on either interface.

*Graphical User Interface

• Monitoring screen (personal computer and tablet)



• Monitoring screen (smartphone)

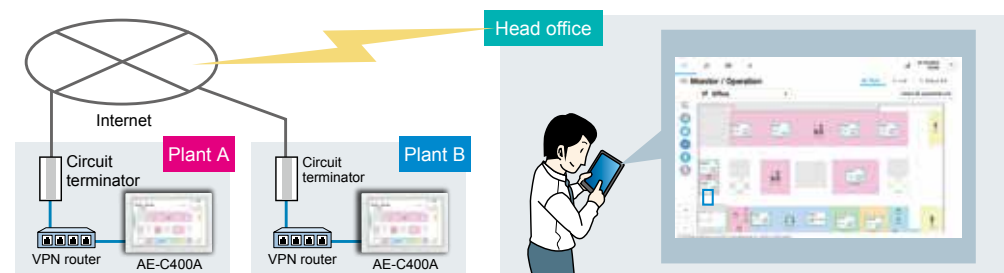


From smartphones, system equipment can be operated by group units only

- * The initial setting tool is required to make initial settings.
- * On a system incorporating only the EW-C50A, floor layouts can be registered using the initial setting tool. The plan view creating function is optional.
- * Indoor units are centrally controlled using a Web browser on a personal computer, but the personal computer can be used for other purposes.
- * In the case of Windows, Microsoft® Edge or Google Chrome is required. In the case of Macintosh, Safari 7 is required. Windows and Microsoft® Edge are registered trademarks of Microsoft Corporation in the United States and other countries. iPad and Safari are registered trademarks of Apple Inc. in the United States and other countries. Google Chrome is a registered trademark of Google Inc.

• Monitoring via the Internet

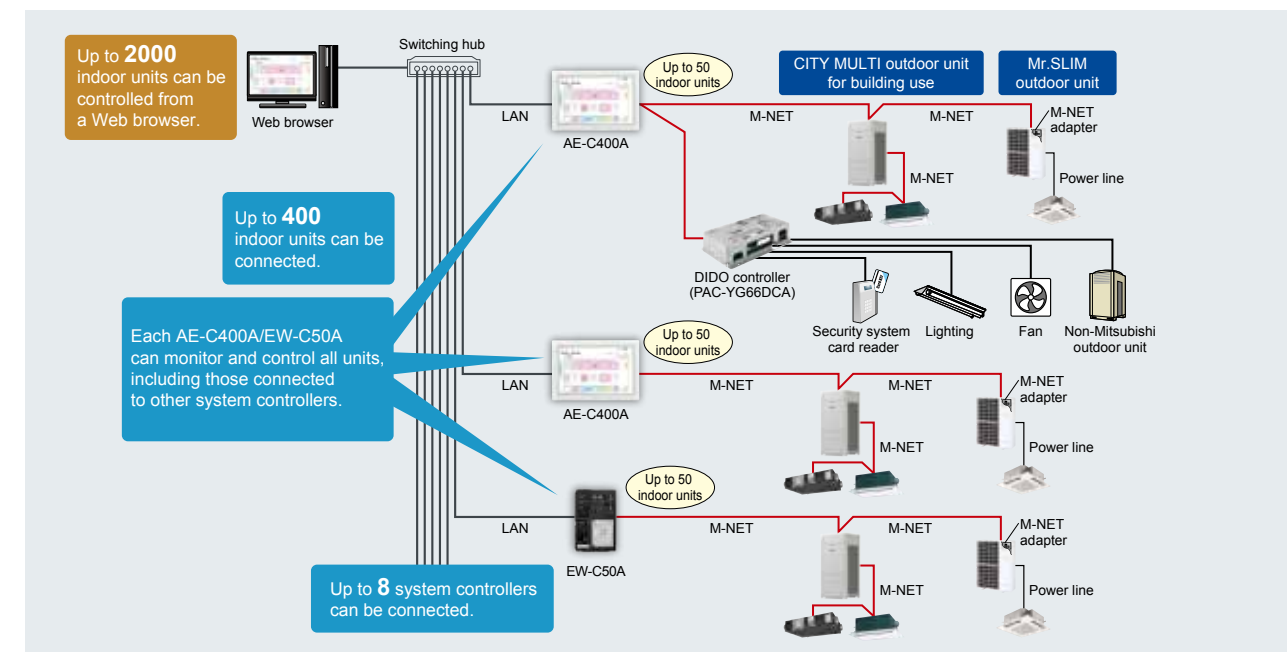
A tablet can be used to remotely operate indoor units and monitor energy usage and troubles.



- * A network administrator should be consulted in advance.
- * When connecting the AE-C400A/EW-C50A to the Internet, use a VPN router for security.
- * It is necessary to create an account with an Internet provider.

System configuration image

One AE-C400A/EW-C50A can control up to 50 indoor units. Up to 400 units can be controlled by connecting additional AE-C400A or EW-C50A.



• Centralized control by floor plan image

Indoor units can be operated and monitored using the system icons on the floor plan image* displayed on the AE-C400A or the Web browser.

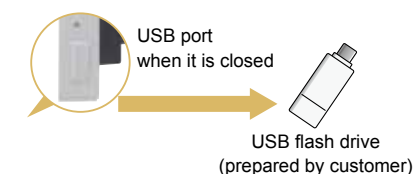
* The floor plan image function is optional.



There are no restrictions on color specifications and support for various file formats, including JPEG and PNG.

• Data input/output from/to USB port type C

Setting data (initial setting) and energy management data can be output to a USB flash drive*. Likewise, setting data can be retrieved from the USB flash drive and input to the AE-C400A.



• Dark mode (Web browser only)

A black background option has been added for the Web browser. Users can switch between settings to suit their preferences. To display in dark mode, add "?color=dark" at the end of the Web browser's URL (ex) [https://\(IP address\)/control?color=dark](https://(IP address)/control?color=dark)



• Error display

A list of units in trouble can be displayed. Touch an error code button to display error details.



• License registration screen

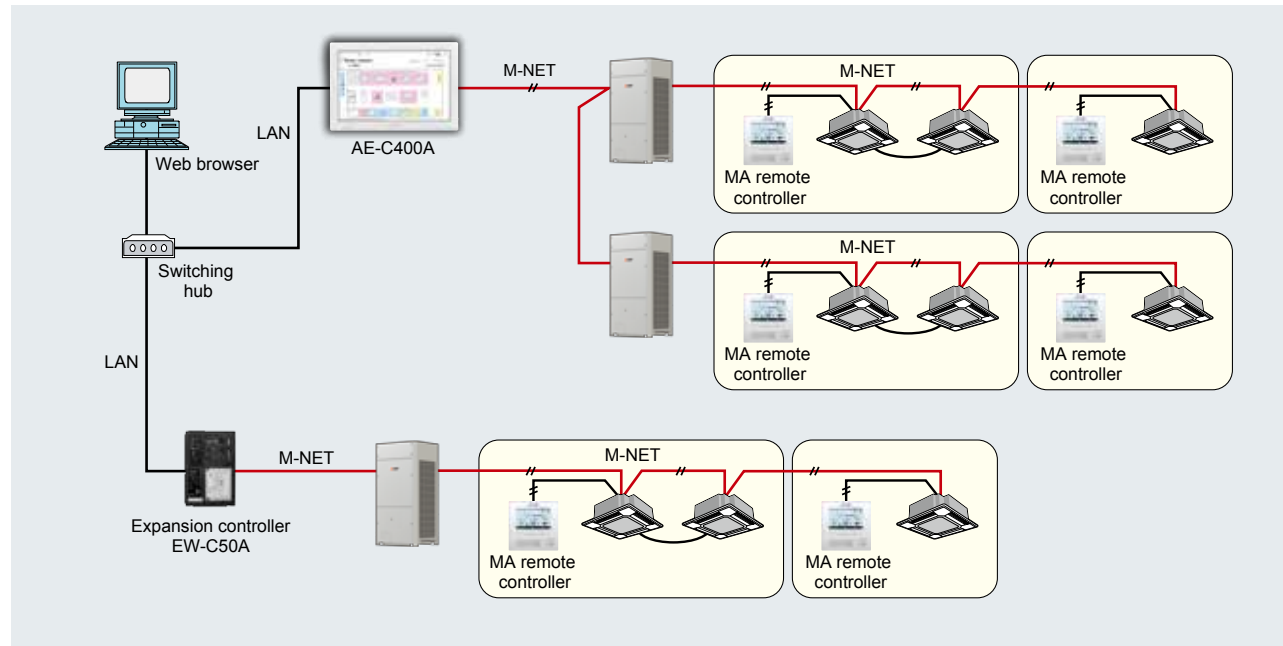


* Licenses need to be registered in each of the AE-C400A or EW-C50A.

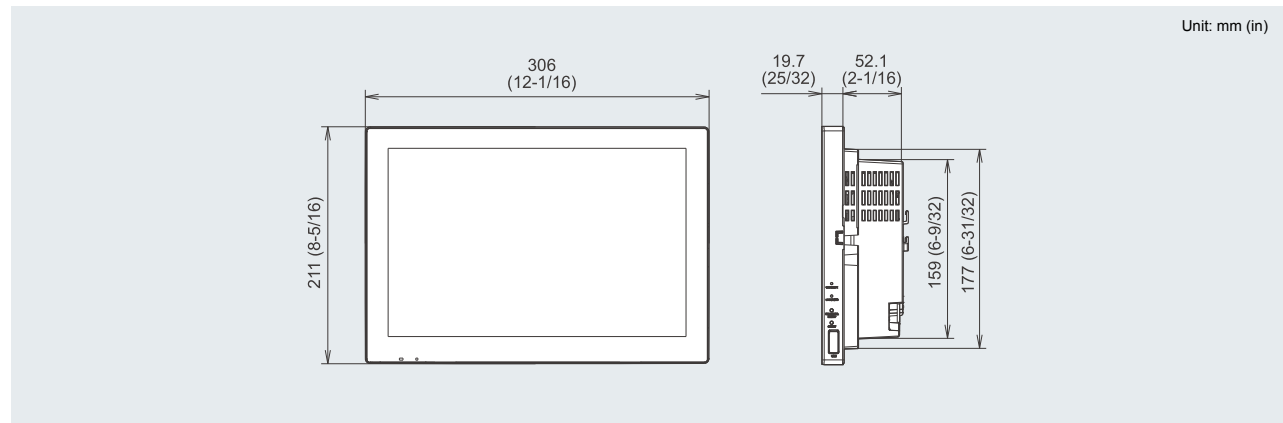
Centralized Control System AE-C400A

Basic specifications

• Example of system configuration



• Outline drawing



Unit: mm (in)

• Specification table

Item	Specifications
Power supply	Rating 100-240 VAC ±10%, 50/60 Hz, single phase
Power consumption	22 W
LAN1, LAN2	100BASE-TX
RS-485	For connecting a watt-hour meter (Modbus-RTU)
External input/output	Input Photocoupler input (4 inputs x 2)
	Output Transistor output (2 outputs x 2) (sink type)
Ambient conditions	Operating temperature range 0°C to +40°C (+32°F to +104°F)
	Storage temperature range -20°C to +60°C (-4°F to +140°F)
	Humidity 30% to 90% RH (non-condensing)
Exterior	PC+ABS-GF10 (Munsell 1.0Y 9.2/0.2)
External dimensions	W × H × D 306 × 211 × 71.8 mm (12-1/16 × 8-5/16 × 2-27/32 in)
	When embedded, the controller protrudes from the wall or the metal control box by 19.7 mm (25/32 in).
Weight	2.9 kg (7 lbs)
Installation conditions	Indoor only * This controller is for use in an indoor or equivalent environment.

• Functions * The functions and specifications are subject to change.

□: Each unit ○: Each group ●: Each block △: Each floor ◎: Collective ×: Not available

Item	Description	Operations	Display
Controllable number of unit	Up to 50 units/50 groups		
ON/OFF	ON and OFF operation for the air conditioning units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	○◎△●	○◎
Operation mode	Switches between several operation modes depending on the air conditioning unit. Air conditioning unit : Cool/Dry/Auto(*)/Fan/Heat LOSSNAY unit : Heat Recovery/Bypass/Auto CAHV, CRHV, Air To Water (PWFY) units : Heating, Heating ECO, Hot Water, Anti-freeze, Cooling(**) * Auto mode is for CITY MULTI R2 and WR2 series only. ** Only PWFY	○◎△●	○
Temperature setting	Cool/Dry : 19°C (67°F) -35°C (95°F) [14°C (57°F) -30°C (87°F)] Heat : 4.5°C (40°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] Auto : 19°C (67°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] The range of temperature depends on the air conditioning unit. [] in case of using middle-temperature on PEFY-NMAU/NMSU/NMH(S)U-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	○◎△●	○
Fan speed setting	Models with 4 air flow speed settings : Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings : Hi/Mid/Low Models with 2 air flow speed settings : Hi/Low Fan speed setting (including Auto) varies depending on the model.	○◎△●	○
Air flow direction setting	Air flow direction angles, 4-angles or 5-angles Swing, Auto (Louver cannot be set)	○◎△●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○◎△●	○
Permit/prohibit local operation	Individually prohibits operation of each local remote controller function. (ON/OFF, Operation mode, Set temperature, Filter sign reset, Air Direction*, Fan Speed*, Timer*) * This function depends on the model.	○◎△●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	○
Error	When an error is currently occurring on an air conditioning unit, the affiliated unit and the error code are displayed.	×	□◎
Test run	This operates air conditioning units in test run mode.	○◎△●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○◎△●	○
External input/output	By using optional external input/output adapter (PAC-YG10HA-E) you can set and monitor the following. Input : By level signal : "Batch ON/OFF", "Batch emergency stop" By pulse signal : "Batch ON/OFF", "Enable/disable local remote controller" Output : "ON/OFF", "Error/Normal"	◎	◎
Energy Management	Bar Graph : Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily and monthly. Line Graph : Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA and temp. from AHC.	×	□○●

• Optional parts for the AE-C400A

Electrical box PAC-YK94UTB

The AE-C400A can be installed embedded in the wall by using an electrical box.

Mounting attachment for wall-surface installation PAC-YK92TB

The AE-C400A can be installed on an undrillable wall (e.g., concrete wall) by using a mounting attachment.

Mounting kit for control panel PAC-YK96TK

The AE-C400A can be installed in a control panel by using the bracket and DIN rail attachments in the mounting kit.

Replacement attachment PAC-YK91RF

The AE-C400A can replace older models (AE-50/200) without changing the wall holes by using a replacement attachment.

Centralized control system EW-C50A



EW-C50A without
LCD screen

EW-C50A

Dimensions: 185(W) × 278(H) × 60.3(D) mm
(7-5/16(W) × 10-31/32(H) × 2-3/8(D) in)

Flexibly applicable to centralized control in large- to small-scale buildings

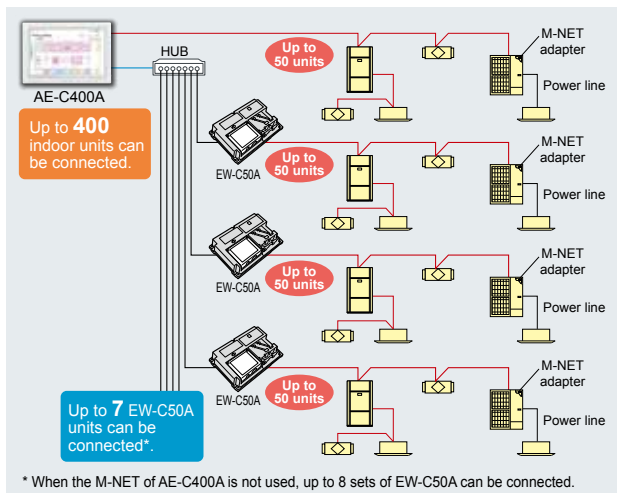
Major features

• Usable as expansion controller for AE-C400A

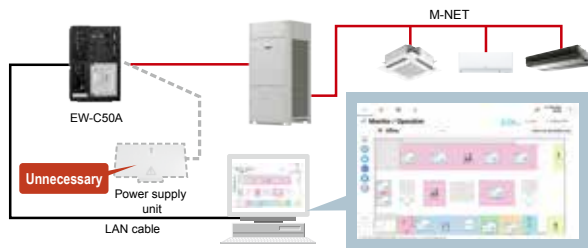
When 7 sets of EW-C50A are connected to AE-C400A, up to 400 indoor units can be operated and monitored by AE-C400A.

• Indoor units can be operated and monitored only with EW-C50A by using a personal computer, tablet or smartphone.

Without AE-C400A, indoor units can be monitored and operated only with this controller by using the browser software*1 of a personal computer. They can be monitored and operated remotely by using the Internet, and the indoor units in some buildings can be operated simultaneously.*2



* When the M-NET of AE-C400A is not used, up to 8 sets of EW-C50A can be connected.

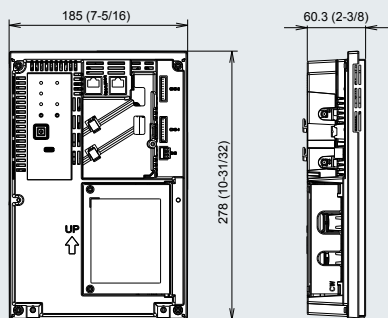


*1. In the case of Windows, Microsoft® Edge or Google Chrome is required.
In the case of Macintosh, Safari 7 is required.
Windows and Microsoft® Edge are registered trademarks of Microsoft Corporation in the United States and other countries.
iPad and Safari are registered trademarks of Apple Inc. in the United States and other countries.
Google Chrome is a registered trademark of Google Inc.

*2. The company names and product names in the text may be trademarks or registered trademarks of their respective companies.
When connecting EW-C50A via the Internet, avoid connecting it directly to the Internet. Connect it through a router or the like provided with the VPN function to ensure the security.

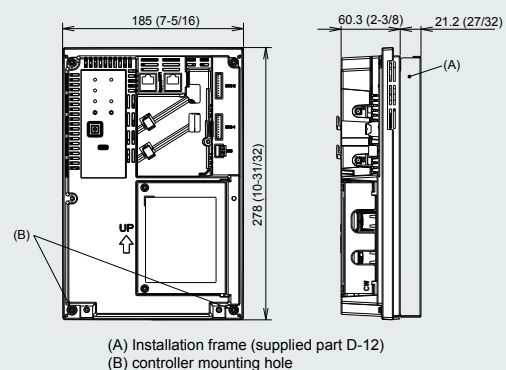
● Outline drawing

[1] Controller



[2] Installation on a panel inside a metal control box

Unit: mm (in)



(A) Installation frame (supplied part D-12)
(B) controller mounting hole

Specification table

Item		Specifications
Power supply	Rating	100-240 VAC ±10%, 50/60 Hz, single phase
Power consumption		15 W
LAN1, LAN2		100BASE-TX
RS-485		For connecting a watt-hour meter (Modbus-RTU)
External input/output	Input	Photocoupler input (4 inputs x 2)
	Output	Transistor output (2 outputs x 2) (sink type)
Ambient conditions	Operating temperature range	-10°C to +55°C (+14°F to +131°F)
	Storage temperature range	-20°C to +60°C (-4°F to +140°F)
	Humidity	30% to 90% RH (non-condensing)
Exterior		Body: Electrogalvanized steel sheet Cover: PC+ABS
External dimensions	W × H × D	185(W) × 278(H) × 60.3(D) mm (7-5/16(W) × 10-31/32(H) × 2-3/8(D) in) (185 × 278 × 81.5 mm (7-5/16 × 10-31/32 × 3-7/32 in) when installed on the installation frame)
Weight		1.9 kg (5 lbs)
Installation conditions		In the metal control box installed indoors

• Functions

* The functions and specifications are subject to change.

⊙: By group or multiple groups ○: By group □: Batch only

Item	Description	Setting Display	Display
ON/OFF	Switches the system and general equipment to ON and OFF.	⊙	⊙
Operation mode switching	Switches to cool, dry, auto, fan, or heat operation. * Depending on the unit, some modes are not available.	⊙	○
Room temperature setting	The temperature can be set in the following range. The values inside the parenthesis are for indoor units for medium temperature. * Depending on the model, the setting temperature range differs. · Cooling/dry : 19°C to 35°C (4.5°C to 30°C) · Heating : 17°C to 28°C · Auto (single set point): 19°C - 28°C · Auto (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode. · Setback (dual set points) [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode.	⊙	○
Set temperature 0.5°C increments	The temperature can be set and displayed in 0.5°C increments. * With some unit combinations, the temperature is set in 1°C increments.	⊙	○
Fan speed setting	The fan speed can be set to 4 levels, 3 levels, 2 levels or automatic. * Available fan speeds differ depending on the unit.	⊙	○
Air direction setting	Fixed swing in five levels or auto air direction can be set. * Available air directions differ depending on the unit.	⊙	○
Prohibition of local remote controller operation	It is possible to disable the ability to use to local remote controller to run or stop, the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation. * In the LOSSNAY group, only ON/OFF and filter reset can be disabled. * Disabling of the fan speed, air direction, and timer operation can be set for the AT-50B, PAR-44MAAUB/PAR-44MAACAB, and PAC-YT53CRAU models.	⊙	○
Room temperature display	Displays the suction temperature of the indoor unit.	-	○
Error display	Displays the current error content together with the address.	-	⊙
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	⊙	○
Energy management	Displays the power consumption* or operating hours. * Requires an optional part.	-	⊙
Ventilator operation (solo)	Group operation can be possible for free plan LOSSNAY units only. * The above group operation mode includes auto ventilation, heat exchange, and normal ventilation.	⊙	○
Ventilator operation (interlocked)	Free plan LOSSNAY units and indoor units can be interlocked and operated together. * At this point, air volume can be operated but the ventilation mode cannot be selected.	⊙	○
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following. Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input. Pulse signal: Batch ON/OFF or Operation Disable/Enable * Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA-E). Of the above inputs, only one input can be selected.	□	-
External output (error output, operation output)	Using the level signal, ON/OFF and Error/Normal are output. * Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA-E).	-	□
Web browser	Monitor/operation, failure, filter sign monitoring, schedule setting, interlocked control setting (option), energy saving control setting (option), energy saving peak cut setting (option), set temperature range restrictions, other	⊙*1	⊙*1
Filter reset	Filter sign reset	○	○
Connectable location	Centralized system transmission line: Connectable Recommended Indoor and outdoor transmission line: Connectable	-	-

* The functions and specifications differ depending on the connected equipment and model.

* Electric energy can be proportionally divided using the EW-C50A alone.
But the apportioned electricity charge function requires an AE-C400A

■ Notes

*1. Some items do not support the multi group setting and display.
*2. Use only items for which the unit has the function.

■ Connectable equipment: Free plan direct expansion system air conditioner

Inverter unit for facility
Package unit for facility (the AW control model can be connected using an M control compatible indoor unit)
A Control Mr. Slim (Can be connected using an M-NET adapter or special outdoor unit)
Free plan LOSSNAY/LOSSNAY with heating and humidification
Independent humidification unit *2
Environmental measuring controller, metering measurement controller, general interface

PI Controller



PAC-YG60MCA

Dimensions: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.
: 200(W) x 120(H) x 45(D) mm

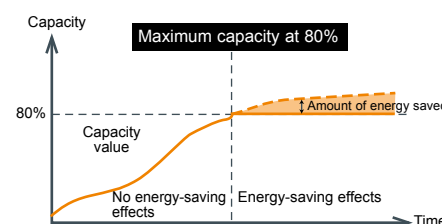
The PI controller counts pulses from a power meter, gas meter, water meter, and calorimeter. By combining the AE-200A/AE-50A/EW-50A, the charges for each unit can be calculated and peak cut (e.g., demand control) operations can be performed. The meters can be monitored on the AE-200A/AE-50A LCD.

Energy Saving Control (Peak Cut)

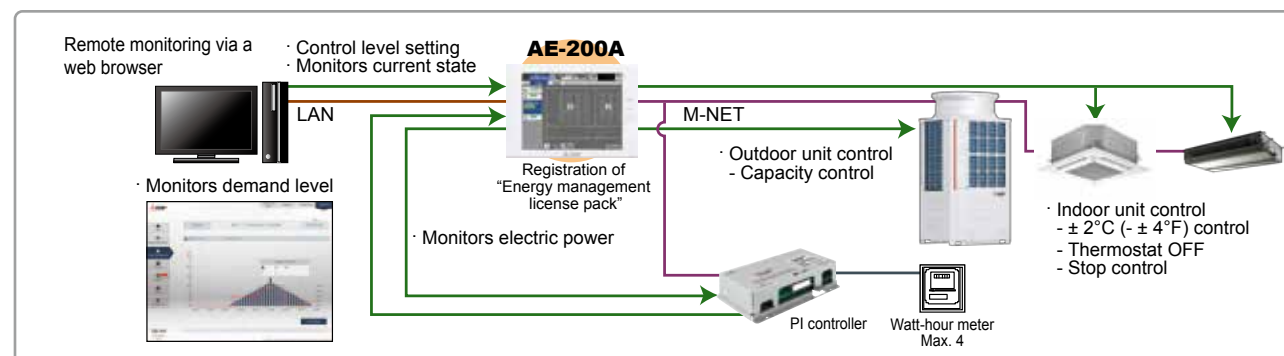
The PI controller enables energy saving control. (Registration of the “Energy management license pack” is required.)

Energy saving is achieved by controlling the capacity of the outdoor unit.

*Note that when using energy saving control, there are no warranties for failures such as usages exceeding the contracted electricity amount.



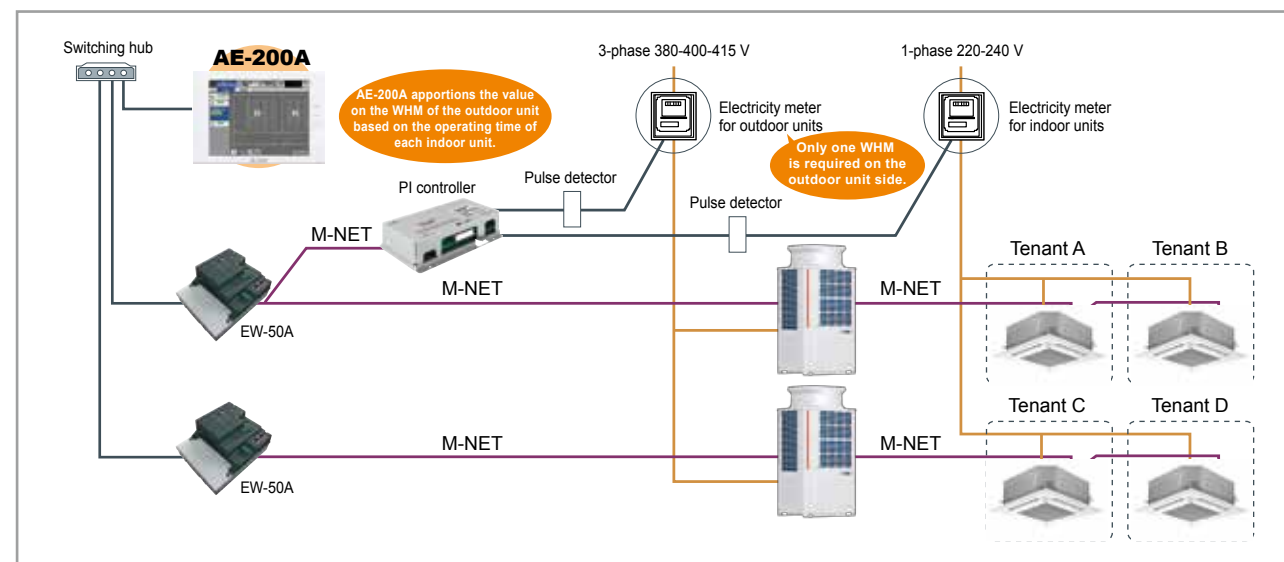
• System structure



Charge Calculation

• System structure

The charges for each tenant are calculated and output as a CSV file.



DIDO Controller



PAC-YG66DCA

Dimensions: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.
: 200(W) x 120(H) x 45(D) mm

The DIDO controller is used in combination with the AE-C400A/EW-C50A to operate general-purpose equipment, as well as to monitor operating and error status. It is equipped with two sets of standard terminals (Channels 1 and 2), and four sets of expansion connectors for the input/output terminals.

The expansion cable is optional.

Operation can be monitored or performed from the AE-C400A LCD.

In addition, this device includes a function that interlocks M-NET devices such as indoor units, general equipment, etc.

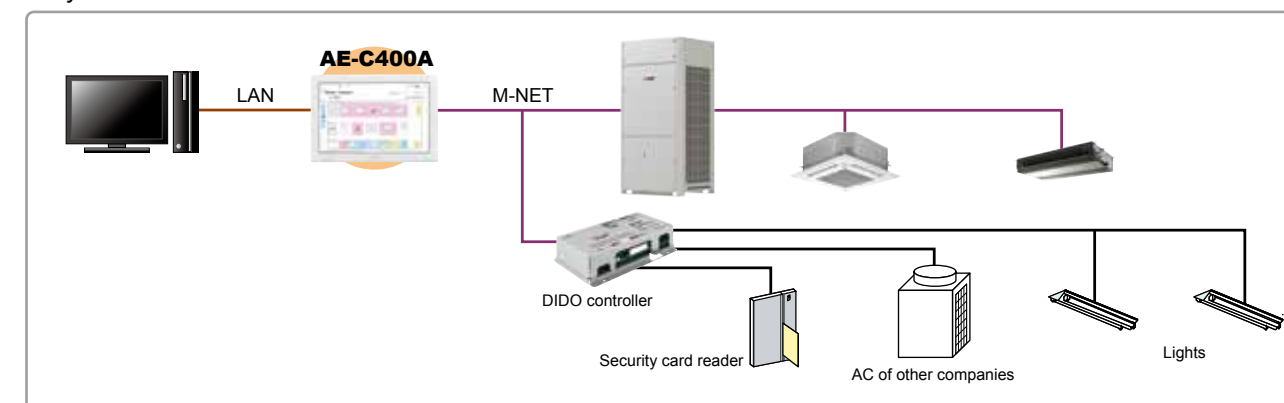
Control of general-purpose equipment

Equipment other than Mitsubishi Electric outdoor and indoor units (outdoor units of other companies, lights, ventilators, etc.) can be controlled and monitored.

- In addition to the above, system units can be interlocked with general-purpose equipment. E.g.: Interlock between indoor units and a security system
- Indoor units can be turned ON/OFF when the security system is activated/deactivated.



• System structure



AI Controller



PAC-YG63MCA

Dimensions: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.
: 200(W) x 120(H) x 45(D) mm

The AI controller measures temperature and humidity; it also has an alarm capability if the measurement data exceeds defined setpoints. Measurement data history can be displayed only via the AE-C400A/EW-C50A web browser. Temperature and humidity can be displayed on the AE-C400A LCD. Furthermore, an alarm can be output if measurement data exceeds a preset upper or lower limit. The AI controller also features a function that interlocks M-NET devices for indoor units, etc.

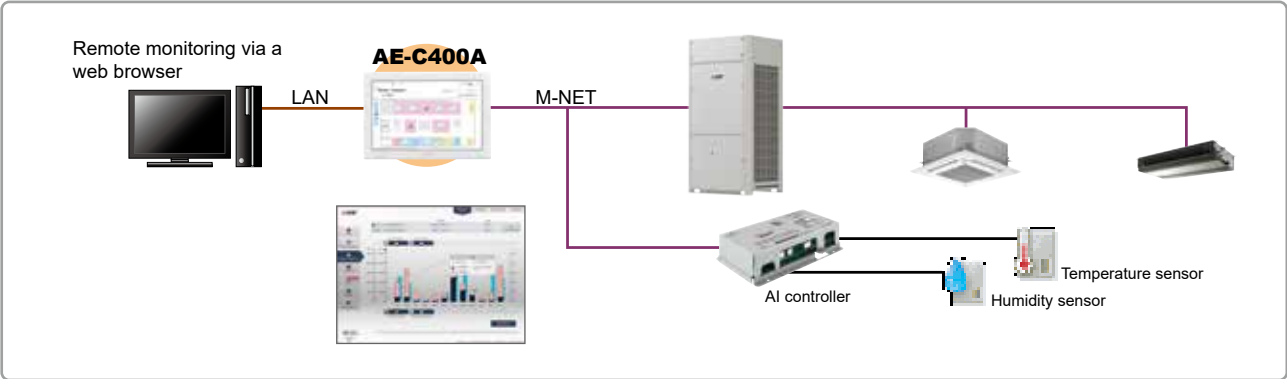
Temperature/humidity monitoring

Monitors the values measured by the temperature/humidity sensor connected to the AI controller

Temperature: Pt100, 4 to 20 mA DC, 1 to 5 VDC, 0 to 10 VDC
Humidity: 4 to 20 mA DC, 1 to 5 VDC, 0 to 10 VDC

- Measurement data trends can be displayed on a web browser.
- An alarm can be output by e-mail when measurement data exceeds a preset upper or lower limit.

• System structure



BACnet®

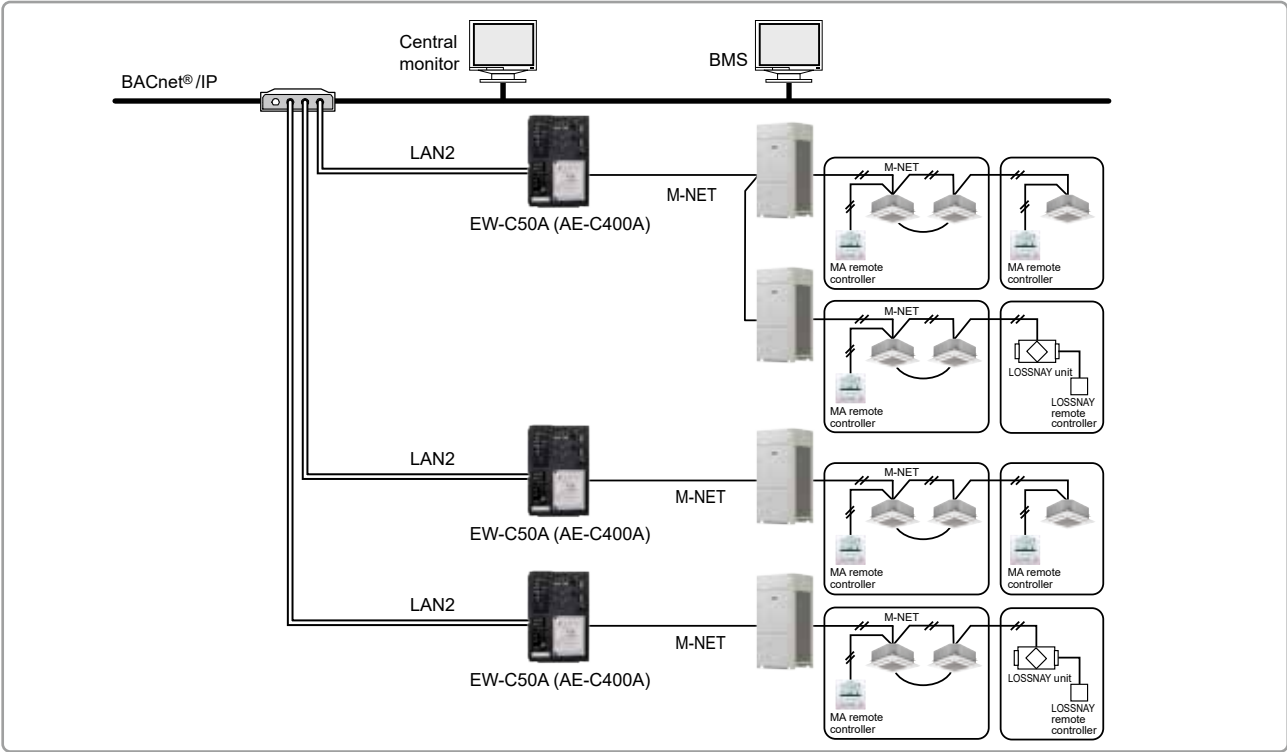
CITY MULTI can be easily combined with a Building Management System (BMS) via the EW-C50A (AE-C400A). BACnet® is an open transmission protocol widely used in BMS and related equipment control. CITY MULTI is compatible with large-scale BMS management via BACnet®.



EW-C50A (AE-C400A) can control up to 50 units/groups (including LOSSNAY).

*To use the BACnet® function with the EW-C50A (AE-C400A), BACnet® license registration is required.

• System example



• BACnet® and M-NET adapter

FUNCTION	CONTENT
Operation	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan/Setback
Fan Speed	Low-Mid2-Mid1-High-Auto
Air Direction	Horizontal-60%-80%-100%swing
Set Temperature	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.
Filter Sign Reset	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp, Fan speed
Forced Off	Reset/Execute
Ventilation Mode	Heat Recovery/Bypass/Auto
Air to Water Mode	Heating/Heating ECO/Hot Water/Anti-freeze/Cooling

FUNCTION	CONTENT
Monitoring	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan/Setback
Fan Speed	Low-Mid2-Mid1-High-Auto
Air Direction	Horizontal-60%-80%-100%swing
Set Temperature	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.
Filter Sign	ON/OFF
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp, Fan speed
Indoor Temperature	Temperature
Alarm Signal	Normal/Error
Error Code	2 Character code- Indicates all unit alarms
Error Code Detail	4 Character code- Indicates all unit alarms
Communication State	Normal/Error
Ventilation Mode	Heat Recovery/Bypass/Auto
Air to Water Mode	Heating/Heating ECO/Hot Water/Anti-freeze/Cooling
Apportioned Electric Energy	Group, Interlocked Units 0.1 kWh
PI controller Electric Energy	0.1 kWh
Apportionment Parameter	Available*
Night Purge State	ON/OFF
Thermo On/Off State	ON/OFF
External Heat Source State	ON/OFF
Trend Log	Indoor Temp, Apportioned Electric Energy, PI controller Electric Energy, Apportionment Parameter

* To use this function, the license to charge, AE-C400A (not connected to the M-NET), PI controller, watt-hour meter with pulse transmitter (locally available one) are required.

BACnet® (BACS-AP50E)

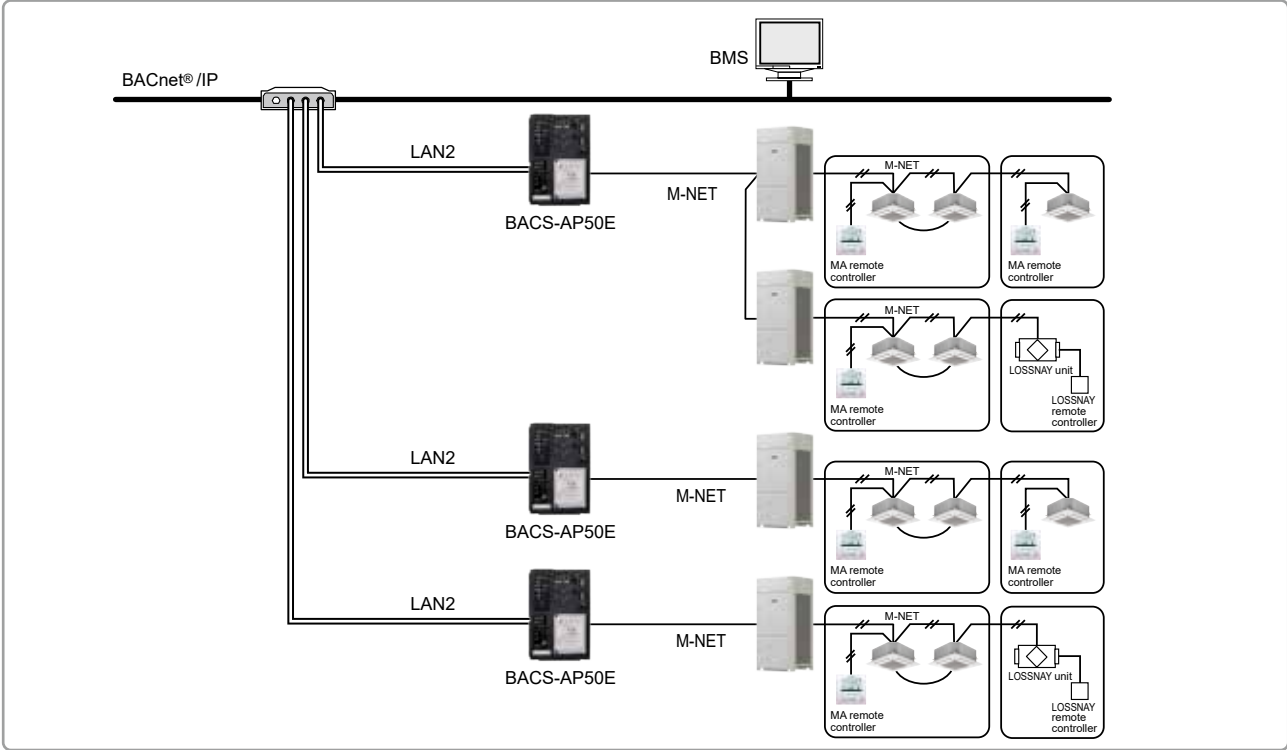
CITY MULTI can be easily configured into a Building Management System (BMS) using the BACnet® protocol and the M-NET adapter BACS-AP50E. BACnet® is an open transmission protocol commonly used for controlling equipment within a BMS.

The BACS-AP50E can control up to 50 units or groups.

Additional BACS-AP50E adapters can be installed within a centralized controller system to control more than 50 units or groups.



• System example



• BACnet® and M-NET adapter

FUNCTION	CONTENT
Operation	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan
Fan Speed	Low-Mid2-Mid1-High-Auto
Air Direction	Horizontal-60%-80%-100% swing
Set Temperature	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.
Filter Sign Reset	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp, Fan speed
Forced Off	Reset/Execute
Ventilation Mode	Heat Recovery/Bypass/Auto
Air to Water Mode	Heating/ECO/Hot Water/Antifreeze/Cooling

FUNCTION	CONTENT
Monitoring	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan
Fan Speed	Low-Mid2-Mid1-High-Auto
Air Direction	Horizontal-60%-80%-100% swing
Set Temperature	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.
Filter Sign	ON/OFF
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp, Fan speed
Indoor Temperature	Temperature
Alarm Signal	Normal/Error
Error Code	2 Character code- Indicates all unit alarms
Error Code Detail	4 Character code- Indicates all unit alarms
Communication State	Normal/Error
Ventilation Mode	Heat Recovery/Bypass/Auto
Air to Water Mode	Heating/ECO/Hot Water/Anti-freeze/Cooling
Thermo On/Off State	ON/OFF
External Heat Source State	ON/OFF
Trend Log	Indoor Temp

Optional parts

• For CONTROL

Model	Description
PAC-SE42TS-E	Remote Sensor for A/J/K/M-Net Control
PAC-SE55RA-E	Remote ON/OFF adapter for Indoor Unit
PAC-SA88HA-EP	Multiple Remote Controller Adapter
PAC-SC37SA-E	Output signal connector
PAC-SC36NA-E	Input signal connector
PAC-SF46EPA-G	Transmission booster
PAC-YG10HA-E	External input/output adapter for AE-C400A

Model	Description
PAC-YK92TB-J	Mounting attachment for AE-C400E-X wall-mount installations
PAC-YK94UTB-J	Electrical box for AE-C400E-X wall-embed installations
PAC-YK96TK-J	Mounting kit for AE-C400E-X wall-mount installations
PAC-YK91RF-J	Replace attachment from AE-C400A

Installation Information

* Refer to the enclosed Installation Manual for details on installation. Arrange to have an expert install the system correctly.

I. General precautions

1-1. Usage

- ◆The air-conditioning system described in this catalogue is designed for human comfort.
- ◆This product is not designed to assist in the preservation of food, provide conditions to maintain plants or animals, or stabilize environments for the preservation of precision equipment or art objects. To prevent loss of quality, do not use the product for purposes other than those 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 an area where the voltage changes significantly, 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 environments.
- ◆Installation should not be performed in locations exposed to chlorine or other corrosive gases. Avoid installation near sewers.
- ◆To reduce the risk of fire, do not install the unit in an area where flammable gas may leak or flammable material is present.
- ◆This air-conditioning unit has a built-in microcomputer. The effects of noise should be taken into consideration when deciding on the installation position. It is recommended that the air-conditioning unit be installed in a position away from antennas or electronic devices.
- ◆Install the unit on a solid foundation in accordance with local safety measures against typhoons, wind gusts, and earthquakes to prevent the unit from being damaged, toppling over, or falling.

1-3. Backup system

- ◆In regions in which the malfunctioning of the system may have a critical effect, it is recommended to have two or more systems made up of single outdoor/heat source units and multiple indoor units.

1-4. Unit characteristics

- ◆The heat pump efficiency of the outdoor unit depends on the outdoor temperature. In heating mode, performance drops as the outside air temperature drops. In cold climates, performance can be poor. Warm air will continue to be trapped near the ceiling and the floor level will remain cold. In such cases, heat pumps require a supplemental heating system or air circulator. Before purchasing, consult your local distributor for assistance in selecting the unit and system.
- ◆When the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor/heat source unit side tends to collect frost, which reduces its heating performance. The Auto-defrost function will be activated in order to remove the frost, and the heating mode will temporarily stop for 3-10 minutes. Heating mode will automatically resume upon completion of the defrost process.
- ◆A unit 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.
- ◆Sound levels were obtained in an anechoic room. 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 operating conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes even when operating normally. Try to avoid positioning the unit in locations where quietness is required.

With regard to the BC controller, it is recommended that the unit be installed in areas such as corridor ceilings, restrooms and plant rooms.

- ◆The total capacity of the connected indoor units can be greater than the capacity of the outdoor/heat source 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 the power comes on, i.e. after a power failure, it performs initial startup operation (capacity control operation) to prevent damage to the compressor. The initial startup operation requires a maximum of 90 minutes to complete, depending on the operating load.

1-5. Related 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 an inverter type, select an earth leakage breaker able to respond to high harmonic waves and surges.
- ◆Leakage current is generated not only through the air-conditioning unit but also through the power wires. The leakage current of the main power supply is therefore greater than the total leakage current of each unit. Take the capacity of the earth leakage breaker or leakage alarm into consideration 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 be accurate because the leakage current from other systems may be included in the measurement value.
- ◆Do not install a phase-advancing capacitor on a unit connected to the same power system as an inverter-type unit and its related equipment.
- ◆If a large current flows due to the malfunctioning of the product 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 that 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, power leakage, system breakdown, or fire.
- ◆Some optional accessories may not be compatible for use with the air-conditioning unit or may not be suitable for the installation conditions. Check the compatibility when considering any accessories.
- ◆Note that some optional accessories may affect the unit's external 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 and BC controller

2-1. Operating environment

- ◆The refrigerant (R454B/R32) used in the system is non-toxic, but slightly flammable. However, if the refrigerant leaks, the oxygen level may drop to harmful levels. If the indoor unit is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant leaks.
- ◆If the units operate in cooling mode at a humidity above 80%, condensation may collect and drip from the indoor units.
- ◆Condensate may form during use, which may result in water remaining in the drain pan. Regular checking and cleaning of the drain drainage paths, such as the drain pan or the drain pump, is recommended to prevent clogging. The neglect of a clogged drain pump may trigger the water-leakage protection function which stops operation of the entire system.

2-2. Unit characteristics

- ◆The return air temperature display on the remote controller may differ from the displays 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 measured by the built-in temperature sensor on the remote controller may differ from the actual room temperature due to the effect of the wall temperature.
- ◆Use the 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 areas 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 operating noise may increase.
- ◆The room temperature may increase above the preset temperature in environments in which the heating or air-conditioning load is small.

2-3. Unit installation

- ◆The insulation for the low-pressure pipe between the BC controller and the outdoor/heat source unit must be at least 13/16 in. (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 demand control is used, the unit may stop abnormally or damage may occur to the electromagnetic contactor. Consult your local distributor for details.
- ◆When indoor units employ fresh air intake, install a filter in the duct (locally procured) to remove dust from the air.
- ◆The 4-way 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.
- ◆Employing fresh air intake for the indoor unit may increase the sound pressure level.
- ◆Do not install the unit above the cooking or food processing area.

3. Precautions for outdoor unit/heat source unit

3-1. Installation environment

- ◆The outdoor unit with the salt-resistant specification is recommended for use in an area in which it will be exposed to salt air.
- ◆Even when the unit with the salt-resistant specification is used, it is not completely protected against corrosion. Be sure to follow the directions or precautions described in the Instruction Book and Installation Manual for installation and maintenance. The salt-resistant specification is referred to in the guidelines published by JRAIA (JRA9002).
- ◆Install the unit in an area where the flow of discharge air is not obstructed. If the flow of discharge air is obstructed, short-cycling of discharge air may occur.
- ◆Provide proper drainage around the base of the units; condensation may collect and drip from outdoor units. Provide water-proofing protection to the floor when installing the unit on the rooftop.
- ◆In regions where snowfall can be 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 19-11/16 in. (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 a SUS snow guard is used, refer to the Installation Manual that comes with the snow guard and be careful with 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 32°F (0°C), take appropriate measures, such as the use of a unit base heater, to prevent ice forming 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 approximately 19-11/16 in. (50 cm) or more of snow accumulates on the snow guard, remove the snow from the guard. Install a roof that is strong enough to withstand loads caused by snow in areas 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 so 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 to ensure that the oxygen dissolved in the water is 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 following to prevent the freezing and bursting of pipes when the heat source unit is installed in an area where the ambient temperature can be 32°F (0°C) or below.
 - ◆Keep the water circulating to prevent it from freezing when the ambient temperature is 32°F (0°C) or below.
 - ◆Before a long period of non-use, be sure to purge the water from the unit.
- ◆The salt-resistant unit is resistant to salt corrosion, but not salt-proof.
Please note the following when installing and maintaining outdoor units in a marine environment.
 1. Install the salt-resistant unit in an area in which it is not directly exposed to sea breezes, and minimize 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 an anti-rust agent and replace corroded parts as necessary.

3-2. Circulating water

- ◆Regularly check the quality of the water in the heat source unit, following the guidelines published by JRAIA (JRA-GL02-1994).
- ◆A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere.
When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air to ensure that the oxygen dissolved in the water is 1 mg/L or less.

3-3. Unit characteristics

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

3-4. Related equipment

- ◆Provide grounding in accordance with the local regulations.

4. Precautions for control-related items

4-1. 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-C400A/EW-C50A, 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 should not be used for official business purposes. It is not the method that the amount of electric power consumption (input) by the unit is calculated. Note that the electric power consumption by the unit is apportioned by using the ratio corresponding to the operation status (output) for each indoor unit in this method.
- ◆In the apportioned billing function for AE-C400A/EW-C50A, separate watt-hour meters should be used for A-control units, K-control units, and CITY MULTI packaged units. It is recommended that an individual watt-hour meter should be used for large-capacity indoor units (with two or more addresses).
- ◆When using the peak cut function on the AE-C400A/EW-C50A, 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 the AE-200A/AE-50A or EW-50A 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-C400A/EW-C50A/PAC-YG66DCA or PAC-YG63MCA, do not use the control for fire prevention or security. (This function should never be used in a way that would put people's lives at risk.) Employ any methods or circuits that allow ON/OFF operation using an external switch in case of failure.

4-2. Installation environment

- ◆Surge protection may be required for the transmission line in areas where lightning strikes occur frequently.
- ◆The 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 the receiver.
- ◆When the auto-elevating panel is used and the system is operated using a wired remote controller, install the wired remote controller in a place where all the units being 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; be sure to use a wireless remote controller designed for use with the elevating panel (sold separately).
- ◆Install the wired remote controller (switch box) in a place where the following conditions are met.
 - ◆Where the installation surface is flat
 - ◆Where the remote controller can detect an accurate room temperature
The temperature sensors that detect the room temperature are installed both in the remote controller and in the indoor unit.
When the room temperature is detected using the sensor in the remote controller, the main remote controller is used to detect the room temperature. In this case, follow the instructions below.
 - ◆Install the controller in a place where it is not affected by a heat source.
(If the remote controller faces direct sunlight or the direction of the supply air flow, the remote controller cannot detect the accurate room temperature.)
 - ◆Install the controller in a place where the 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 the AE-C400A/EW-C50A to the Internet.

⚠ 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, 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 equipment and heat pumps contain a fluorinated greenhouse gas, R32 R454B.

www.mitsubishielectric.ca