CITY MULTI®
Catalog

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING


MITSUBISHI ELECTRIC
MITSUBISHI ELECTRIC

Table of Contents

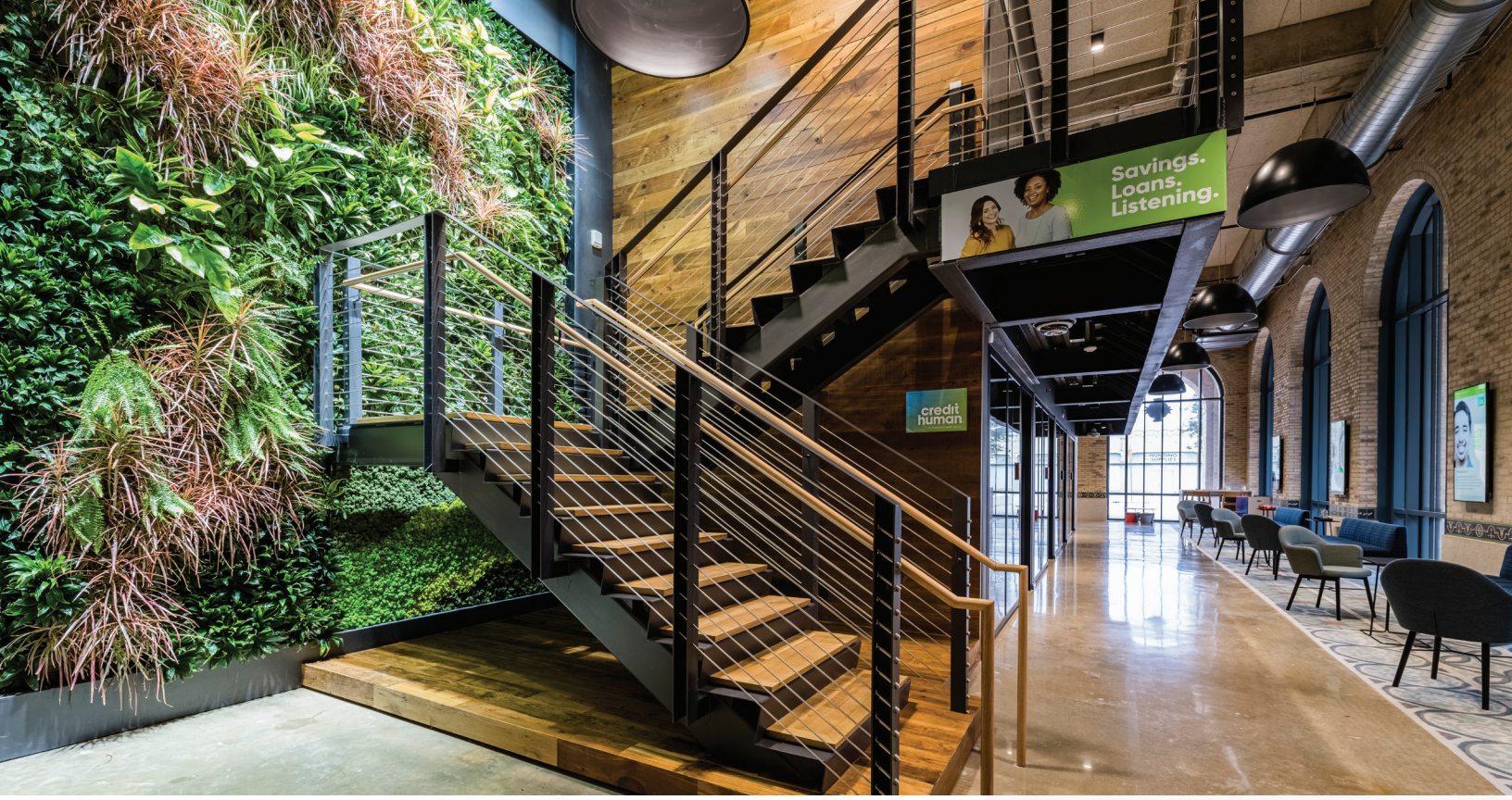
MITSUBISHI ELECTRIC

HEATING & AIR CONDITIONING

History of Innovation

For more than 30 years, Mitsubishi Electric's continuous innovation has brought unbeatable comfort and efficiency to homes and buildings of all shapes, sizes, and uses. As a leader in advanced HVAC technologies, including Ductless and Ducted Mini-split and Variable Refrigerant Flow (VRF) heat pump and air-conditioning systems, we have a solution for any building, any space, anywhere. We continually innovate around efficiency, comfort, and wellness by providing industry-leading products, design and technical training, and unmatched end-to-end support.

A better way to heat and cool any building, any space, anywhere.



We are working to contribute to a more sustainable society by developing and promoting energy-saving all-electric products and systems that will reduce the use of fossil fuels in the heating and cooling industry.

Our Commitment

We continue to advance technologies that reduce waste and promote sustainable resources while increasing energy efficiency and eliminating dependence on fossil fuels. We are committed to improving energy efficiency in all of our operations.

An Industry Changing

Strategic electrification is the movement to replace fossil fuel-burning technologies with electricity-based alternatives to reduce pollution, increase energy efficiency, and reduce costs for consumers and society. Strategic electrification in the heating and cooling industry is powering end users with electricity instead of fossil fuels. Fossil fuel-free heating results in a reduction of greenhouse gas emissions (decarbonization), which is good for the environment, improves indoor air quality by reducing pollution, and with the zoning capabilities of Mitsubishi Electric systems, improves comfort and control.

"Our vision is clear: to align personal comfort with the greater societal good"

INVERTER-Compressor Technology

Conventional systems are either on or off. All or nothing. Our compressors speed up or slow down based on the needs of each room to maintain comfort and conserve energy.

Room-by-Room Control

Divide your home into zones that best fit your family's needs. Save energy and maximize savings by creating your customized comfort zones.

ENERGY STAR®

Many of our systems are ENERGY STAR qualified and may be eligible for federal and state tax credits or local utility rebates.

Outdoor Units

CITY MULTI® products feature a variety of systems so you can design the system that best meets your needs.

Outdoor Unit Product Range

Hyper-heating INVERTER® Units

Air-Cooled Systems

Y-Series

- Cooling and Heating
- Heat Pump
- 6-20 Ton | 208–230 V/460 V

R2-Series

- Simultaneous Cooling and Heating
- Heat Recovery
- 6-20 Ton | 208–230 V/460 V

High Efficiency Units

Air-Cooled Systems

Y-Series

- Cooling and Heating
- Heat Pump
- 6-36 Ton | 208–230 V/460 V

R2-Series

- Simultaneous Cooling and Heating
- Heat Recovery
- 6-36 Ton | 208–230 V/460 V

Compact Units

Air-Cooled Systems

SMART MULTI™

- H2i Hyper-Heating
- Cooling or Heating
- Heat Pump
- 3/4 Ton | 208-230 V

SMART MULTI™

- Standard
- Cooling or Heating
- Heat Pump
- 3-5 Ton | 208-230 V

Compact Units

Water-Cooled Systems

WY-Series

- Cooling and Heating
- Heat Pump
- 6-30 Ton | 208–230 V/ 460 V/575 V

WR2-Series

- Simultaneous Cooling and Heating
- Heat Recovery
- 6-28 Ton | 208–230 V/460 V/575 V

H2i® Hyper-heating Heat Pumps

INVERTER® Technology

The Hyper–Heating INVERTER® combines the ultimate in application flexibility and powerful conditioning capabilities to deliver personalized comfort control to multiple zones of a commercial or institutional building. The outdoor units deliver full-sized performance from a compact, space–saving design for ease of transportation and installation. The INVERTER-driven scroll compressor delivers precise comfort to each zone.

Unequaled Comfort

The patented flash injection process cools the compressor, allowing higher speeds at a lower outdoor temperature without overheating. This also allows the system to maintain indoor coil temperatures, providing phenomenal heating performance at low temperatures.

Wide Operation Range

Single modules are available up to HP120 for both the Y-Series and the R2-Series. The combination modules are available in a lineup up to HP240. These units require smaller installation space and provide greater flexibility in the selection of models.

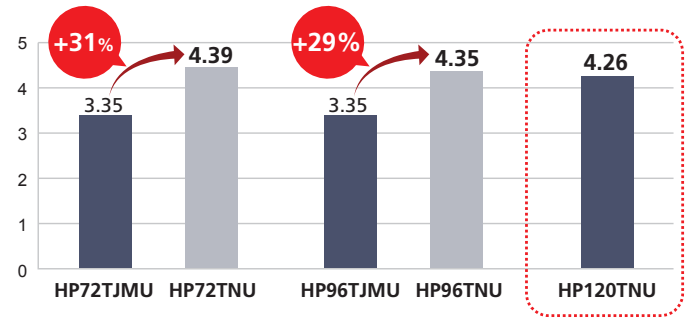
Operation with a Single Compressor up to HP120

		HP72	HP96	HP120	HP144	HP192	HP240
Conventional Model: HP-T(Y)KMU-A-H [(R2)] HP-TJMU-A(Y)	R2	L	L	---	L + L	L + L	---
	Y	S	L	---	S + S	L + L	---
Latest Model: HP-T(Y)NU-A	R2	L	L	L	L + L	L + L	L + L
	Y	L	L	L	L + L	L + L	L + L

Enhanced Efficiency

The structural design of the latest model has a 4-face air induction design and improved core components, such as compressor and fan, to deliver significantly improved energy-saving performance. The COP of the HP72 model in the Y-Series has improved by 31%.

Y-Series



High Efficiency Design

To realize high efficiency, the structure of a four-sided heat exchanger is applied to the latest design model. The sophisticated appearance can enhance building designs. Panel heaters are equipped as a standard on the side and back for proper drainage in cold climates, ensuring highly reliable heating operation.

Image shows the R2-Series

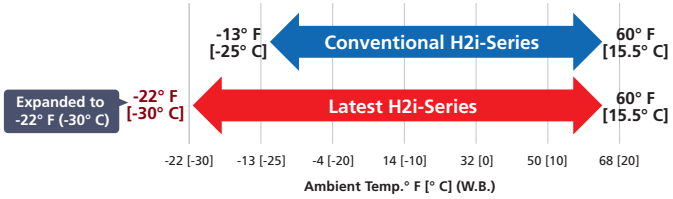
Improved Performance

The H2i-types with large-compacity compressors and an injection junction in the suction chambers can perform heating operations at outside temperatures as low as -22°F (-30°C). Selecting the high heating performance mode helps maintain the heating performance at low outside temperatures. The HP72 and 96 models of the H2i-type are capable of achieving the rated capacity even at a temperature of -4° F [-20° C]*.

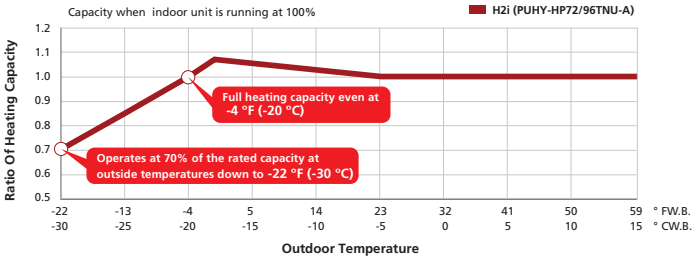
The HP120 model operates at full heating capacity at temperatures down to 5° F [-15° C].

Heating Operation Down to -22˚ F (-30˚ C)

Heating is guaranteed at temperatures down to -22° F (-30° C), helping to create comfortable spaces on cold mornings and evenings, even in harsh climates.



Heating Capacity (High Heating Performance Mode)



Performance in high heating performance mode without taking frost into consideration. The high heating performance mode can be selected in the Y-Series by setting the DIP switch.

Smaller Footprint

Previous Model (T/YKMU)

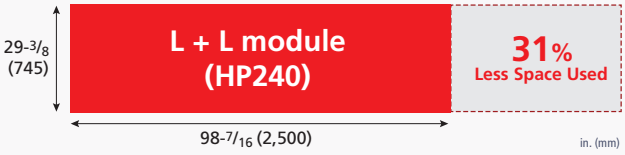
HP96 (L module) + HP192 (L+L module)

Newest Model (T/YNU)

HP240 (L+L module)

Previous Installation Footprint (T/YKMU)

New Installation Footprint (T/YNU)



High Efficiency Systems

Expansive Product Lineup

A single large capacity module is available for the high efficiency type. The latest "EXL" module has an extended heat exchanger and the same footprint as the XL module. The structural design features a 4-face air-induction design and improved core components, such as compressor and fan, to deliver significantly improved energy saving performance.

Y-Series EP - Single

	EP72	EP96	EP120	EP144	EP168	EP192	EP216	EP240
T/YLMU	S	L	XL	XL	XL	---	---	---
T/YNU	S	L	L	L	XL	XL	EXL	EXL

R2-Series EP - Single

	EP72	EP96	EP120	EP144	EP168	EP192	EP216	EP240
T/YKMU	L	L	XL	XL	---	---	---	---
T/YNU	S	L	L	L	XL	EXL	EXL	EXL

Y-Series EP - Combination

	EP72	EP96	EP120	EP144	EP168	EP192	EP216	EP240	EP264	EP288	EP312	EP336	EP360	EP384	EP408	EP432
T/YLMU	---	---	---	S + S	S + L	S + XL	L + XL	XL + XL	S + S + XL	S + L + XL	S + XL + XL	L + XL + XL	XL + XL + XL	---	---	---
T/YNU	---	---	---	---	---	L + L	L + L	L + L	S + L + L	S + L + L	S + L + L	L + L + L	L + L + L	L + L + L	L + L + L	L + L + L

R2-Series EP - Combination

	EP72	EP96	EP120	EP144	EP168	EP192	EP216	EP240	EP264	EP288	EP312	EP336	EP384	EP432
T/YKMU	---	---	---	---	L + L	L + L	L + XL	XL + XL	XL + XL	XL + XL	---	---	---	---
T/YNU	---	---	---	---	---	L + L	L + L	L + L	L + L	L + L	L + XL	XL + XL	EXL + EXL	EXL + EXL

= Latest Single Model

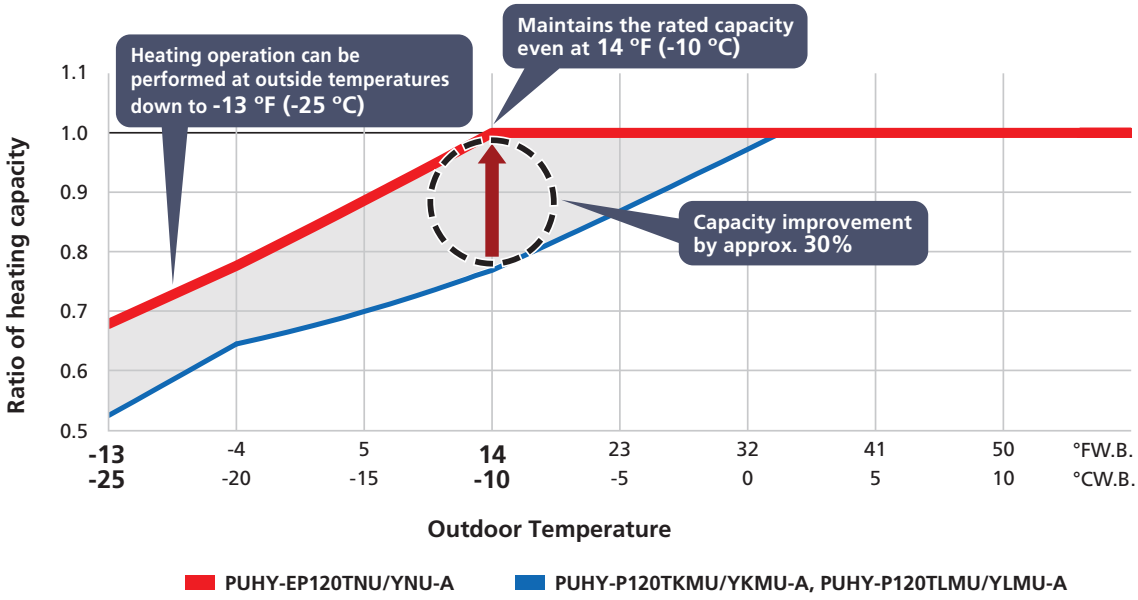
Heating Capability

The EP model has a large capacity compressor with an injection function in the suction chamber of the compressor. Capable of performing heating operations at outside temperatures as low as -13° F [-25° C], this model achieves the rated heating performance at temperatures as low as 14° F [-10° C].

Featured Models: Y-Series EP, R2-Series EP

Excludes the PUHY-EP216, 240T/YNU and PURY-EP192–240, 384, 432T/YNU models.

Comparison of Heating Capacity*



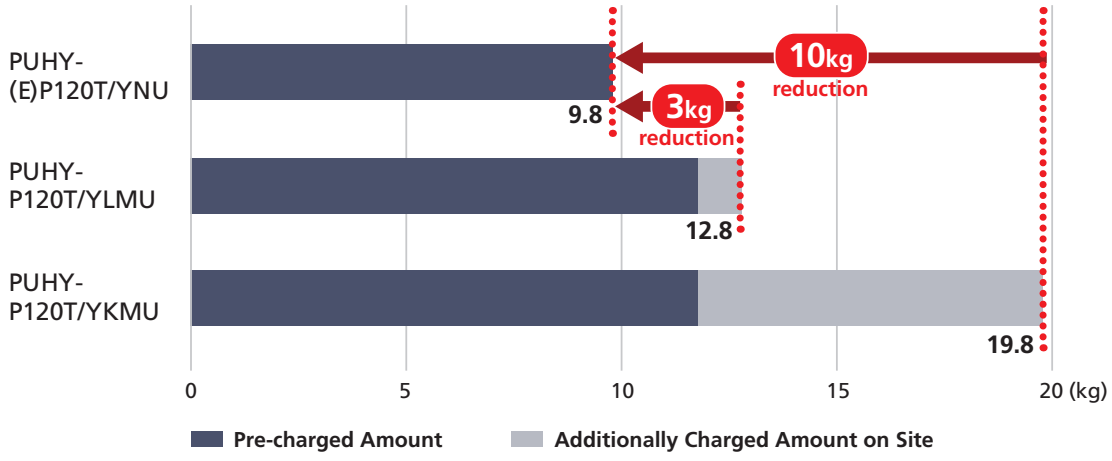
* Performance in high heating performance mode without taking frost into consideration. * The high heating performance mode can be selected in the Y-Series by setting the DIP switch.

Less Refrigerant

The four-way suction structure and fan shape have reduced the refrigerant amount by 3kg (PUHY-(E)P120T/YNU) compared to the conventional flat-tube heat exchanger/three-way suction models (PUHY-P120T/YLMU) and by 10kg (PUHY-(E)P120T/YNU) compared to the round-tube heat exchanger/three-way suction models (PUHY-P120T/YKMU). Reducing the amount of refrigerant needed can save on operation costs, while also being more environmentally sustainable.

Featured Models: Y-Series EP

Comparison of Refrigerant Amount in 10 Ton ((E)P120) Models



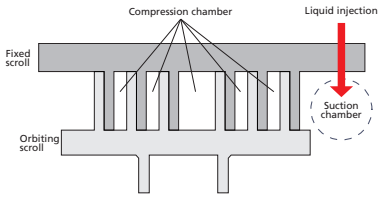
Inside the Compressor

A Powerful Compressor with Suction Chamber Injection Mechanism

Unlike some other HVAC providers, Mitsubishi Electric manufactures all of its own compressors, fan motors and heat exchangers to ensure the highest quality product. The EP/HP models are equipped with a compressor that has a larger capacity than that of the previous models (except PURY-EP168). They are also equipped with a suction chamber injection mechanism. Due to this, HP models can perform heating operations even at an outside temperature of -22° F (-30° C), and heating performance at low temperatures has improved so that the rated capacity is achievable at an outside temperature of -4° F (-20°C) (HP72/96 models).

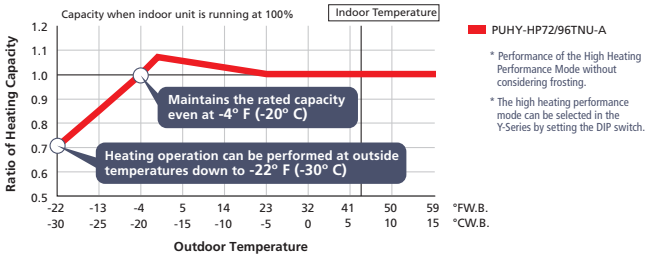
Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

Injection Mechanism



This mechanism suppresses the temperature rise of the discharge gas and supports the heating at low outside temperatures.

Heating Capacity* in High Heating Performance Mode (HP Model)



E Change in Refriegerant Oil

When conventional H2i-Series are operated at temperatures below the guaranteed range, the refrigerant oil may become clouded, and its circulation may decrease. The latest H2i-Series uses refrigerant oil MEL46EH in place of MEL32. MEL46EH is used in the compressor of the H2i-Series to maintain reliability at low temperatures. The synergistic effect of the change in refrigerant oil and the use of a powerful compressor with a suction chamber injection mechanism expands the temperature range for heating down to -22° F (-30° C).

Featured Models: Y-Series HP, R2-Series HP

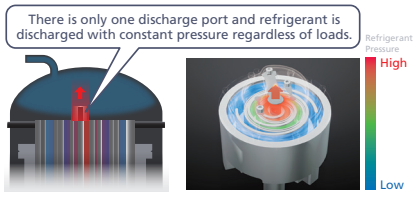
B Multi-port Mechanism

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 latest compressor is equipped with two sub-ports in addition to the conventional discharge port to reduce this over-compression loss during low loads. In operation conditions with a low compression rate, the distance in the compression process is kept short by successfully avoiding unnecessary compression, contributing to efficient partial load operation.

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

Conventional Structure

There was only one discharge port in the center, and regardless of the air conditioning loads, the refrigerant was compressed up to the center part of the scroll, then discharged with constant pressure. This means that the refrigerant tends to be compressed to higher than necessary pressure during low loads.



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 air conditioning loads. The suppression of over-compression improves the operation efficiency of partial load.

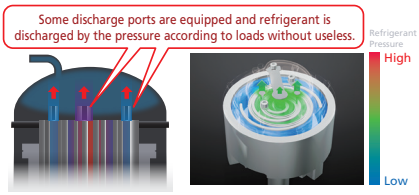
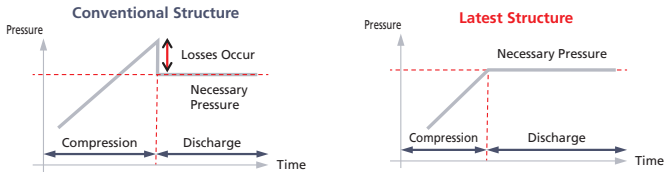
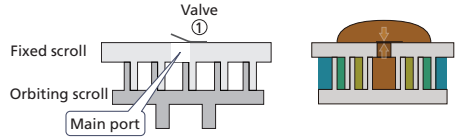


Image of Refrigerant Pressure (Medium Loads)



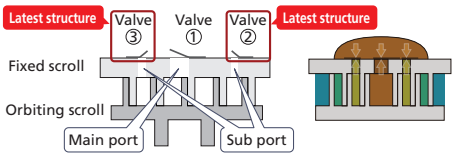
The latest structure, a multi-port compressor equipped with two sub-ports which open and close according to loads, discharges refrigerant from sub-port during the partial load operation.

Conventional Structure



		Operation Pattern	
		Partial Load	Rating, High Pressure Difference
Main port	Valve ①	Open	Open

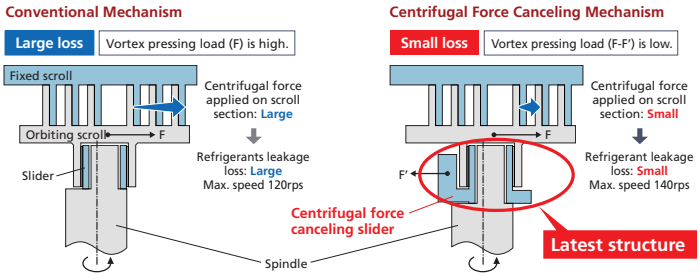
Multi-port Structure



		Operation Pattern	
		Partial Load	Rating, High Pressure Difference
Main port	Valve ①	Open	Open
Sub port	Valve ②	Open	Close
	Valve ③	Open	Close

C Centrifugal Force Canceling Mechanism

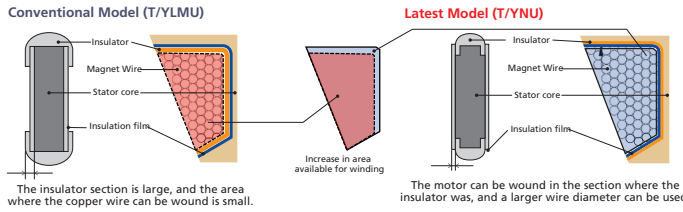
In a scroll compressor, the orbiting scroll is offset from the axis of rotation. This creates the spiraling motion that compresses refrigerant, but also adds a centrifugal force to the scroll sections, allowing refrigerant to leak between scroll sections and creating losses. N-generation compressors have a new slider design to help eliminate these centrifugal forces, reducing leakage and improving efficiency as well as allowing for higher compressor speeds and greater capacity.



D Improved High-Efficiency Motor

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

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP



The compressor varies speed to match the indoor cooling or heating demand to **consume only the energy required.**

Key Components

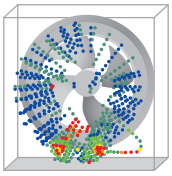
Four-Way Suction Structure

The concave-shaped blade of the propeller fan allows for changing the orientation (normal vector) of the blade surface from the outer circumference direction to the inner circumference direction as air flows from upstream to downstream. This enables air to flow along the outer circumference of the blade while reducing a disturbance of air flow that occurs in the upstream and downstream of conventional propeller fans, resulting in reduction of power consumption of the fan motor and air blow noise. Furthermore, the change of the orientation of the fan blade from the outer circumference direction to the inner circumference direction reduces air leakage from the outer circumference and sends more air to the upstream of the fan.

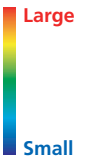
Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

Conventional Model (T/YLMU)

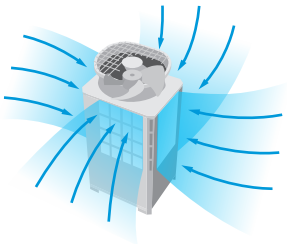
Conventional three-way suction structure has caused a disturbance of air flow in the fan area on the panel side that has no heat exchanger.



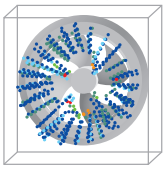
Visualization of air flow of fan



Latest Model (T/YNU)



The four-way suction structure allows heat exchange without causing a disturbance of air flow in all directions.



Fan and four-way suction reduce disturbance of air flow

Visualization of air flow of fan

Adaptive Flow Control

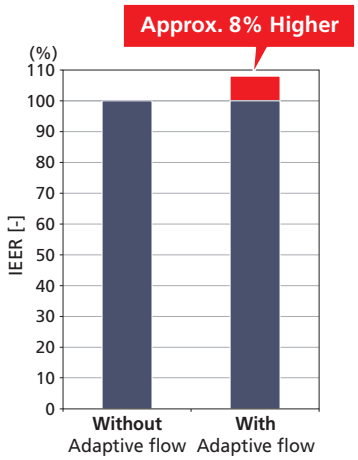
During Cooling, a serial flow path (flow through two of the heat exchangers split into three, and then through the last heat exchanger) is used. With fewer paths, the refrigerant flow rate is increased, and the heat conductivity performance is improved. In addition, the drop in heat exchanger capacity per path prevents the refrigerant stagnation and improves the condensing performance of the heat exchanger during cooling.

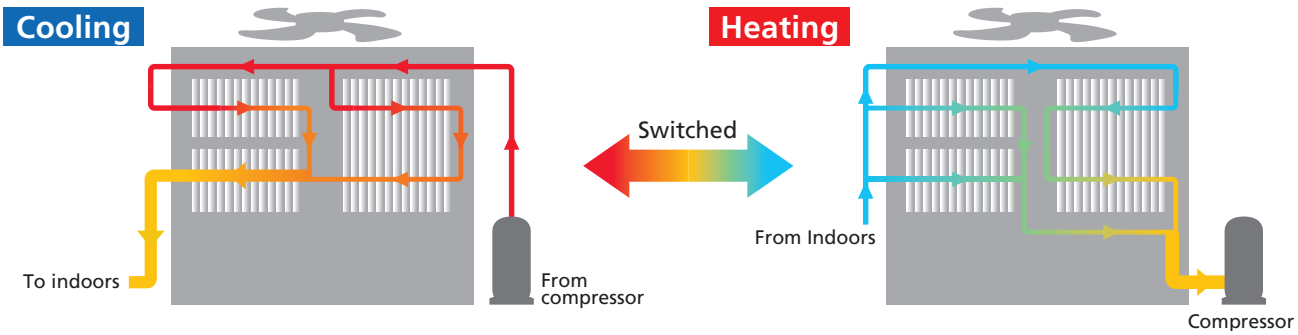
During Heating, a parallel flow path (flow refrigerant simultaneously through all heat exchangers split into three) is used. By flowing the refrigerant to all paths at the heat exchanger inlets (by increasing the number of paths compared to cooling), pressure loss in the heat exchanger is reduced, and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

Featured Models: Y-Series EP (–EP144)

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

Comparison of EP120 (Y-Series) IEER (Cooling) with and without Variable Path





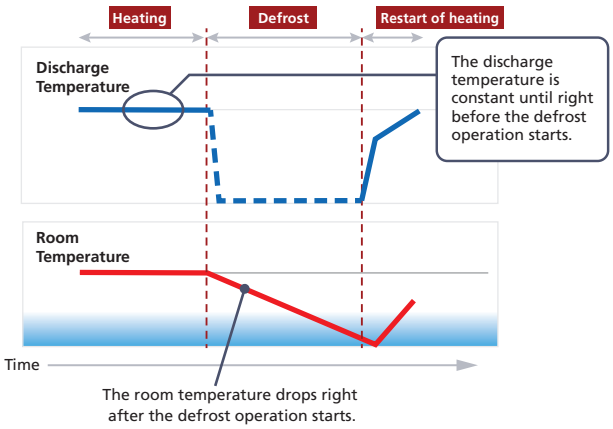
Preheat Defrost Operation

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

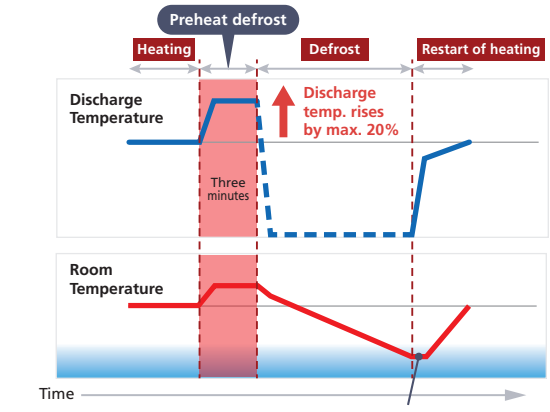
Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

NOTE: The graphs show examples, which may differ from the actual operation depending on the room temperature and the temperature setting.

Without Preheat Defrost



With Preheat Defrost



The room temperature is increased when the defrost operation is started so that the temperature does not drop too low during the defrost operation.

Retrieve Data via USB

On older models, operational data could only be retrieved using a computer with a maintenance tool installed. The latest models allow data to be retrieved quickly via USB, eliminating the need to carry a computer, reducing field operation time and improving convenience. Firmware can also be updated via USB.

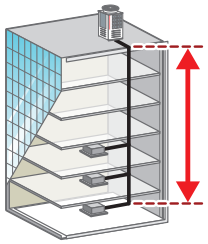
Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

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

Usable in an Application with Separations of Up to 370 Feet

A height difference of up to 370 (113 m) from the outdoor unit to the indoor unit can be supported with no extra-cost options required. This increases design flexibility and facilitates installation of these units even in high-rise buildings.

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP



Height difference from outdoor unit to indoor unit: The system can be configured with a height difference of up to **370 ft (113 m) with no extra-cost options.**

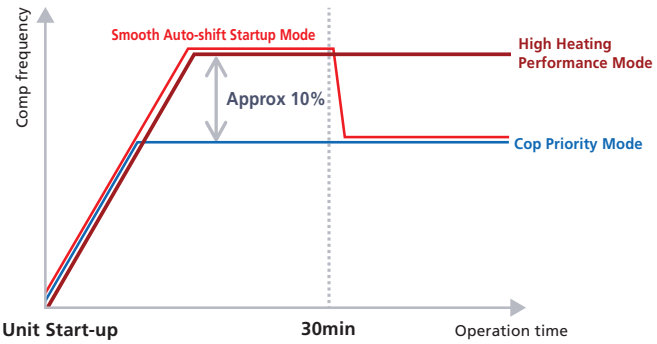
NOTE: Whether the system can be configured with such a height difference varies depending on the model. The maximum height difference is 197 ft (60 m) when the outdoor unit is located lower than the indoor unit. Requires switch settings.

Smooth Auto-Shift Startup Mode

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

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

Smooth Auto-Shift Startup Mode

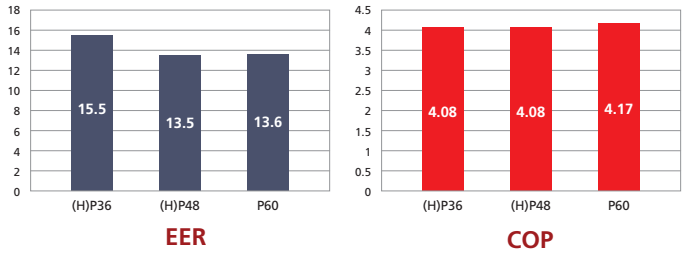


NOTE: Time for preparation for heating is required. Each mode is activated when the ambient temperature is below the specified temperature. For factory settings, refer to the Data Book. The new -A1 models offer 1000 hours of salt spray protection, now tested to ASTMB117.

SMART MULTI® Systems

ENERGY STAR® Certified

All models, both H2i and standard types, have certified ENERGY STAR®. Even with its compact size and light weight, PUMY-Series has a high EER and COP.

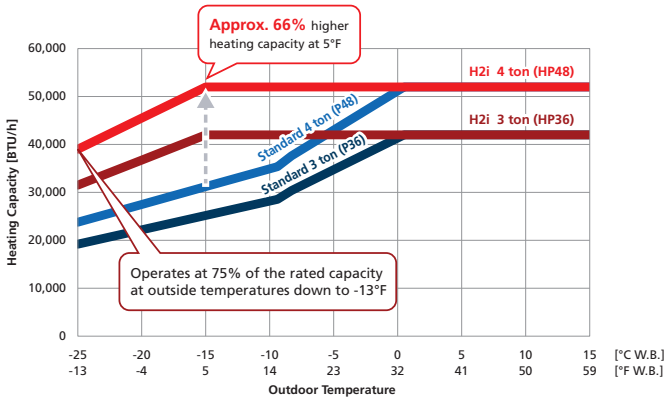


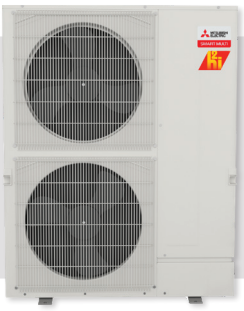
High Transportability for Installation in Narrow Spaces

These units are lighter and have greater mobility compared to the top-flow models, allowing for easier transportation and installation. Smaller depth allows the unit to fit in narrow spaces.

Improved Heating Performance

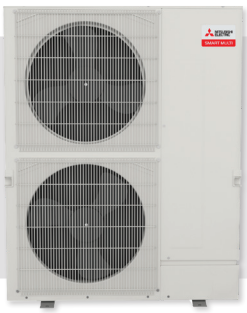
The cold climate type adopts a flash injection circuit to achieve remarkably high heating performance. With this technology, the rated heating performance can be maintained at outside temperatures down to 5° F (-15° C). The guaranteed heating operation range of the heating mode has been extended to -13° F (-25° C).





MXZ-SM(36/42/48)NAMHZ

- 3/4 ton (P36/48)
- The flash injection circuit improves the heating performance at low outside temperatures.



MXZ-SM(36/48/60)NAM

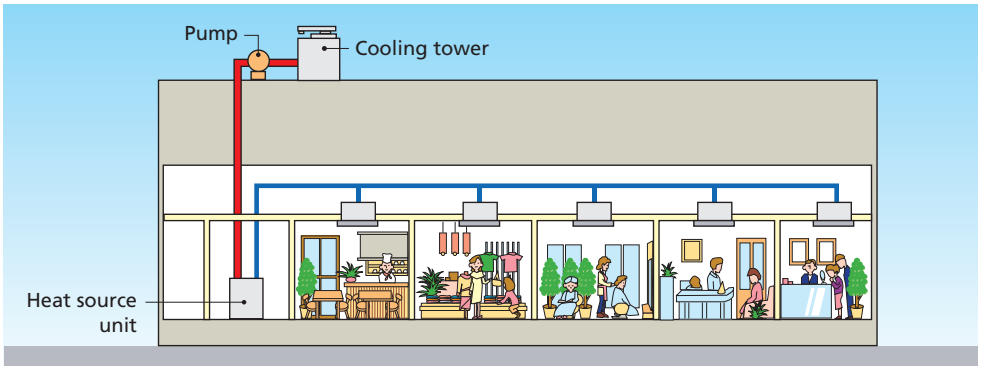
- 3-5 ton (P36-60)
- Compact design that allows individual air conditioning in small-scale buildings and stores

Water-cooled Systems

A Unique System from Mitsubishi Electric

It is now possible to combine the features of VRF with a water circuit using CITY MULTI® WY/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-cooled systems are ideal for use in temperate and cooler climates, since it does not involve heat exchange with the outside air.



Water-cooled 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 50° F and 113° F (10° C and 45° C) can be used.

Simultaneous Heating and Cooling Operation (WR2-Series)

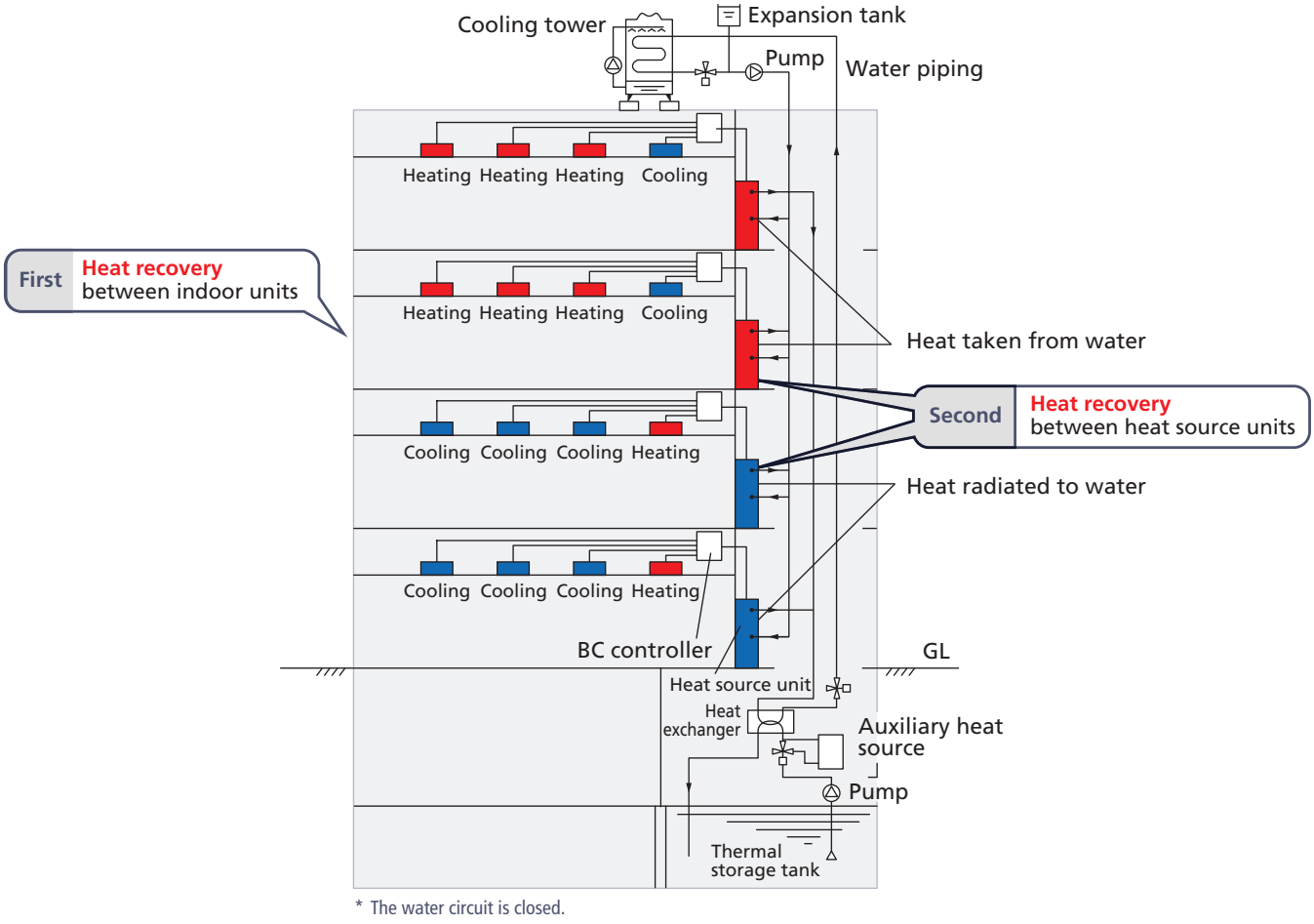
Water-cooled systems are recommended for use in buildings that have the following heating and cooling needs.

- Buildings that require year-round cooling. For example:
  - Tenant buildings in which kitchens and offices exist together
  - Buildings in which equipment rooms and offices exist together
- Buildings in which there are large room temperature differences between sunny and unsunny rooms
- Hotels in which there are a lot of individual operation needs

Double Heat Recovery (WR2-Series)

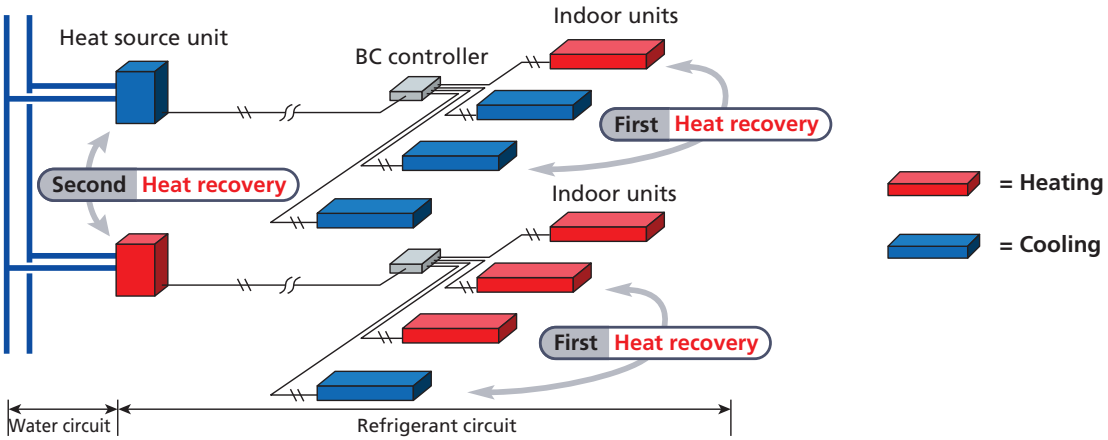
Mitsubishi Electric now offers double heat recovery operation. The first heat recovery is within the refrigerant system. Heat is recovered between the indoor units to allow simultaneous cooling and heating operation. The second heat recovery is within the water loop, where heat is recovered between the 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.

WR2 System Diagram



* The water circuit is closed.

Double Heat Recovery (WR2)



Extended Line Up

WY-Series

		P72	P96	P120	P144	P168	P192	P216	P240	P264	P288	P312	P336	P360
PQHY-P T(Y)LMU-A1	Single	S	S	S	L	L	L	L	L	---	---	---	---	---
PQHY-P T(Y)HMU-A	Single	S	S	S	---	---	---	---	---	---	---	---	---	---
PQHY-P T(Y)SLMU-A1	Combination	---	---	---	S + S	S + S	S + S	S + S	S + S	---	L + L	L + L	L + L	L + L
PQHY-P T(Y)SHMU-A	Combination	---	---	---	S + S	S + S	S + S	S + S	S + S	S + S + S	S + S + S	S + S + S	S + S + S	S + S + S

WR2-Series

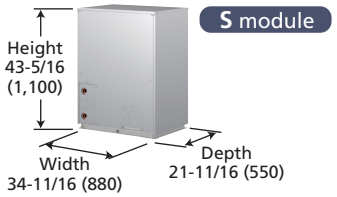
		P72	P96	P120	P144	P168	P192	P216	P240	P288	P312	P336
PQRY-P T(Y)LMU-A1	Single	S	S	S	L	L	L	L	L	---	---	---
PQRY-P T(Y)HMU-A	Single	S	S	S	---	---	---	---	---	---	---	---
PQRY-P T(Y)SLMU-A1	Combination	---	---	---	S + S	S + S	S + S	S + S	S + S	L + L	L + L	L + L
PQRY-P T(Y)SHMU-A	Combination	---	---	---	S + S	S + S	S + S	S + S	S + S	---	---	---

Expansive Operational Range

A wide range of capacities are available, from single modules capable of up to P240 to a combination modules up to P336.

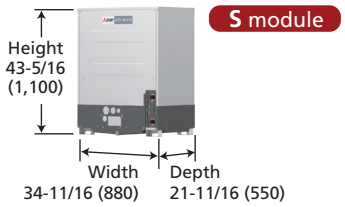
Single or combination module units are available to meet various installation conditions and capacity requirements.

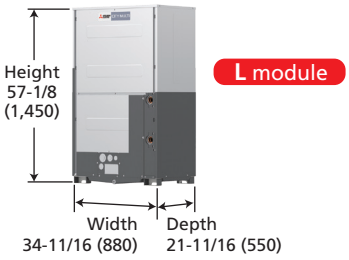
T(Y)HMU-A



in. (mm)

T(Y)LMU-A1



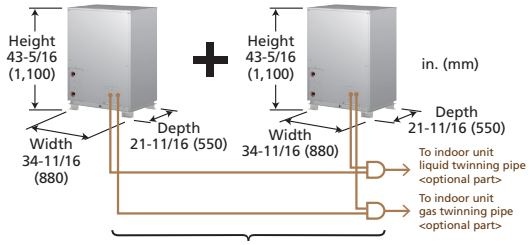


Advantages of Single Modules in Wide Range Capacities

Less Piping Used

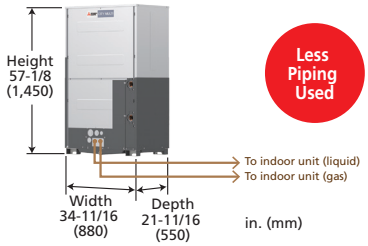
Capable of covering up to P240 (20 ton) with a single module.

Conventional Model (P168TSHMU, YSHMU (WY/WR2-Series))



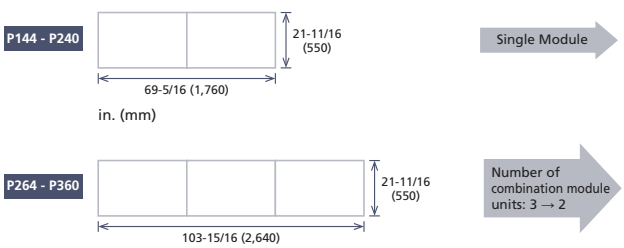
Piping is necessary between the heat source units

Latest Model (P168TLMU, YLMU (WY/WR2-Series))

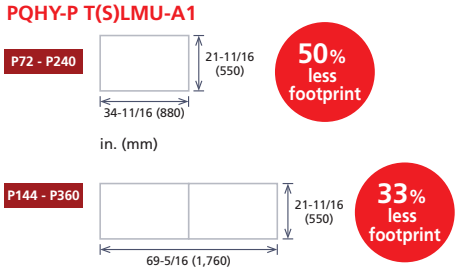


Lower Installation Footprint

PQHY-P TSHMU-A



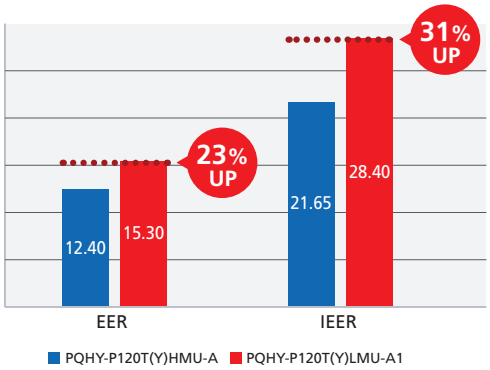
PQHY-P T(S)LMU-A1



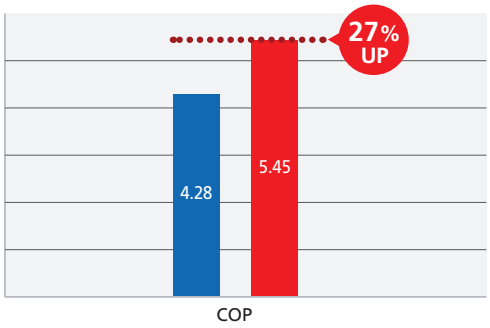
High Energy Efficiency

High EER, COP and IEER Compared to Conventional Models

Comparisons of single-module P120 units (based on the values registered to AHRI)

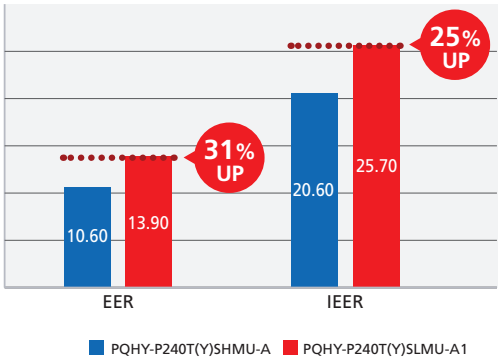


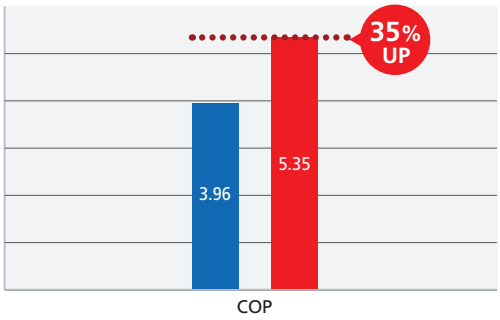
EER/IEER (Btu/h/W)



COP (W/W)

Comparisons of combination-module P240 units (based on the values registered to AHRI)



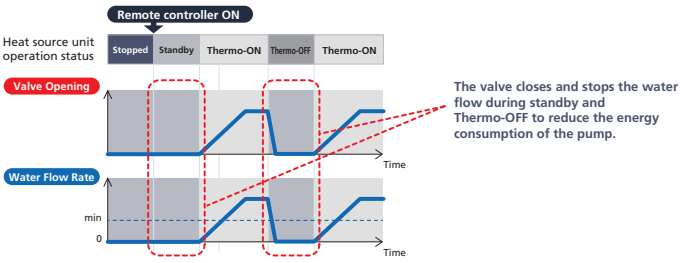


Water Control

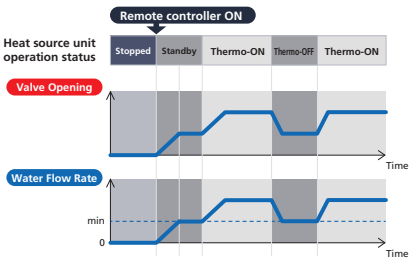
Power-save Function

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

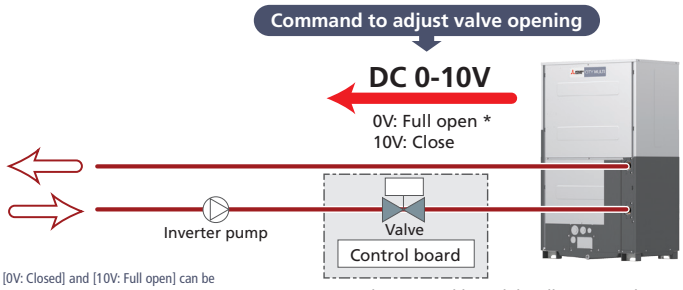


Standard



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.



* [0V: Closed] and [10V: Full open] can be set by changing the dip switch setting.

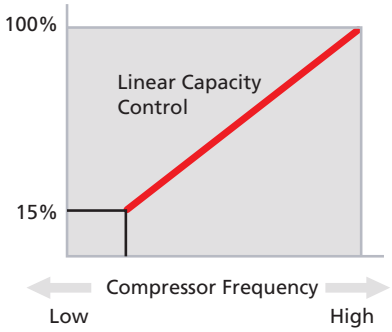
Inverter pump, valve, control board: locally procured

Technologies

INVERTER-driven Compressor Technology

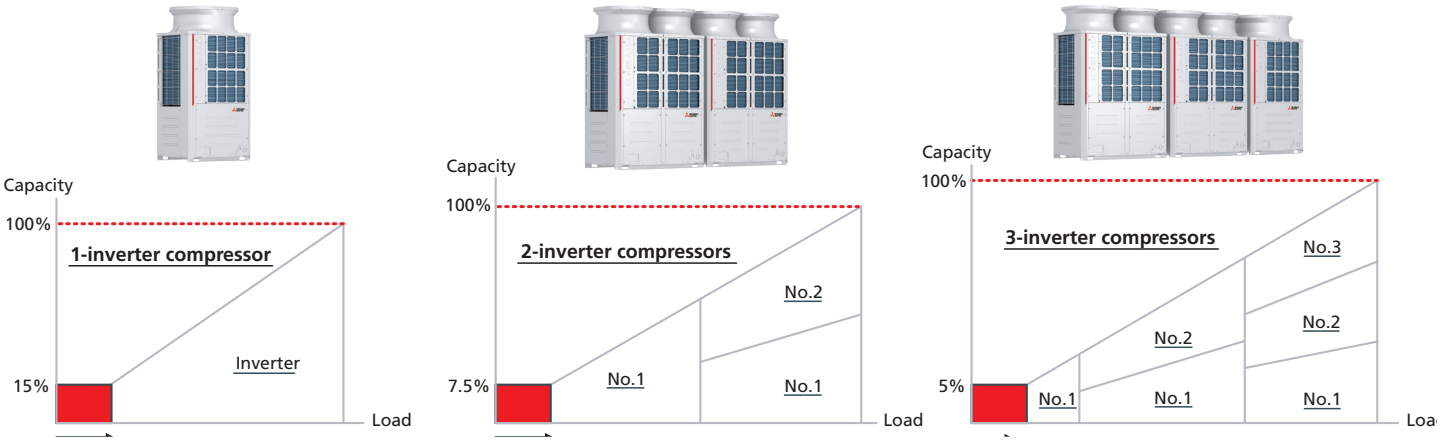
All CITY MULTI® compressors are inverter-driven to precisely match the cooling and heating demands of each building. The compressor varies its speed to match the indoor cooling or heating demand, and therefore consumes only the energy that is required. When an inverter-driven system operates at partial 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.

Heating/Cooling Capacity

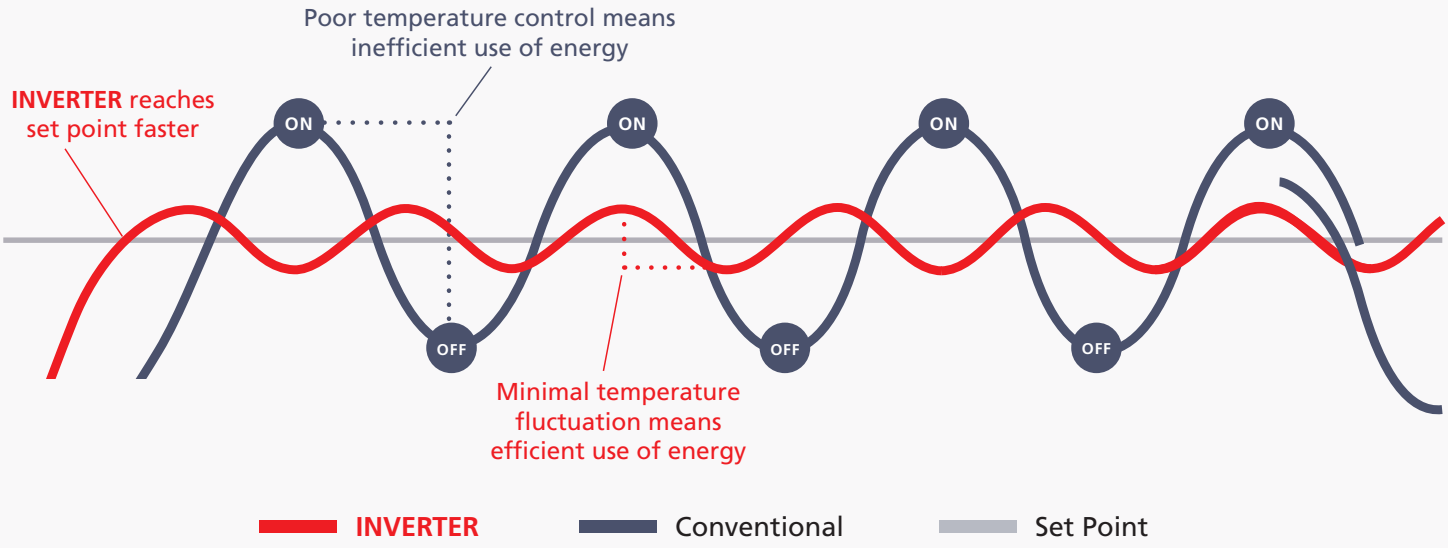


*Values vary depending on actual conditions, such as ambient temperature.

Stable and Smooth Operation



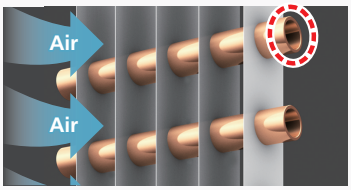
INVERTER vs. Conventional System Operation



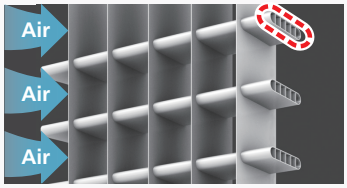
Flat-Tube Heat Exchanger

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

Featured Models: Y-Series EP, R2-Series EP



Conventional Model with Round-tube Heat Exchanger



Latest Model with Flatt-tube Heat Exchanger

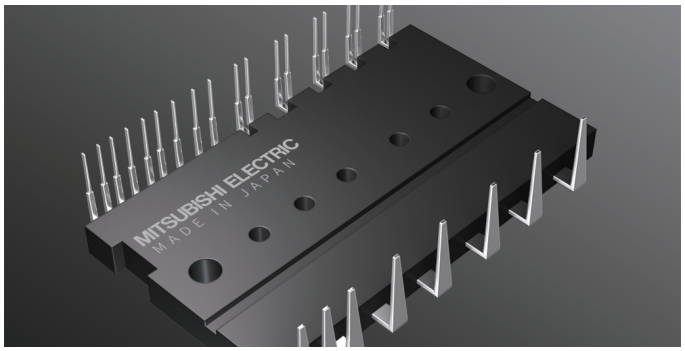
Approximately **30% increase in heat-exchange efficiency and 220% increase** in surface area

(Compared to the round-tube)

Intelligent Power Module (IPM)

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).

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series



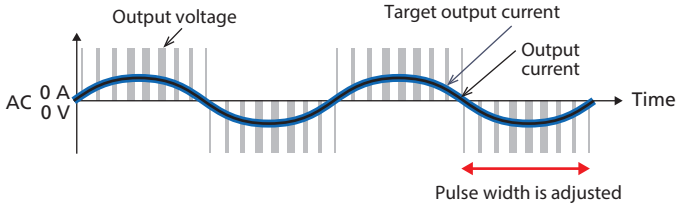
NOTES:
1. IPM (compressor) is installed in all modules. SiC elements are used in all 460 V modules IPMs. IPM (fan) is installed in all modules.
2. IPM (compressor) is installed in 14 to 20 ton (EP168 to EP240) 208-320 V single modules, 8 to 20 ton (EP96 to EP240) 460 V single modules and all 460 V combination modules. SiC elements are used in 14 to 20 ton (EP168 to EP240) single module IPMs. IPM (fan) is installed in all modules.
3. IPM (compressor) is installed in 8 to 14 ton (P96 to P168) 460 V single modules and all 460 V combination modules. IPM (fan) is installed in all modules.
4. IPM (compressor) is installed in 14 to 20 ton (EP168 to EP240) 208-320 V single modules, 26 to 36 ton (EP312 to EP432) 208-320 V combination modules, 8 to 20 ton (EP96 to EP240) 460 V single module and all 460 V combination modules. SiC elements are used in 14 to 20 ton (EP168 to EP240) 460 V single module and 28 to 36 ton (EP336 to EP432) 460 V combination modules IPMs. IPM (fan) is installed in all modules.
5. IPM (compressor) is installed in 8 ton to 14 ton (P96 to P168) 460 V single modules and all 460 V combination modules. IPM (fan) is installed in all modules.
6. IPM (compressor) is installed in 18 and 20 ton (P216/P240) 208-230 V single modules, 12 to 20 ton (P144-P240) 460 V single modules and 24 to 30 ton (P288 to P360) 460V combination modules.
7. IPM (compressor) is installed in 18 and 20 ton (P216/P240) 208-230 V single modules, 12 to 20 ton (P144-P240) 460 V single modules and 24 to 28 ton (P288 to P336) 460 V combination modules.

PWM Control

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.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series

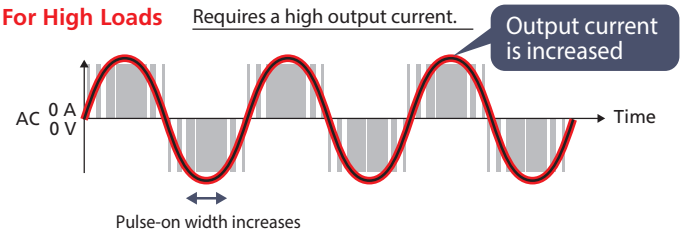
For Low Loads Does not require a high target output current.



For Low Loads

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.



For High Loads

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

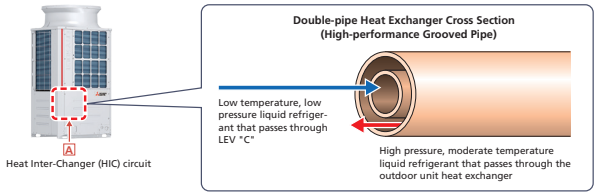
*The number of compressor rotations differs depending on the usage condition.

Heat Inter-Changer (HIC) Circuit

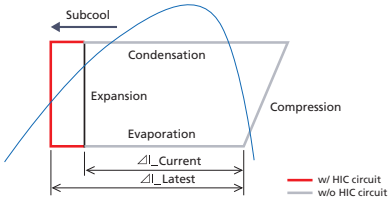
The HIC circuit increases cooling efficiency. This technology raises the degree of supercooling, increasing both cooling capacity and cooling efficiency. The HIC circuit is installed before the point at which the high pressure liquid refrigerant, which passes through the heat exchanger of the outdoor 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.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, Y-Series 575 V, R2-Series HP, R2-Series EP, R2-Series P, R2-Series 575 V, WY-Series, WY-Series 575 V, WR2-Series, WR2-Series 575 V

HIC Circuit (Double-pipe Heat Exchanger)



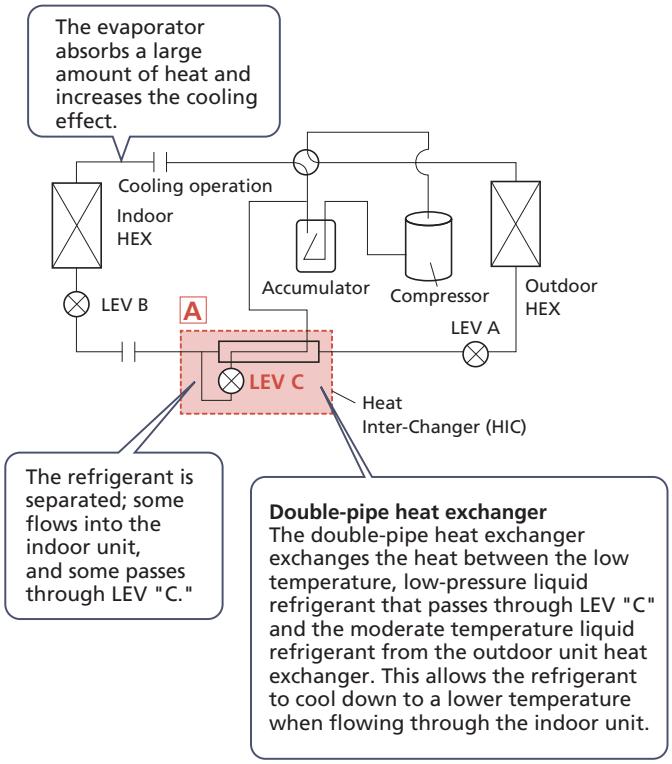
HIC Circuit Effect (Image using a Mollier Diagram)



HIC Mechanism

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.

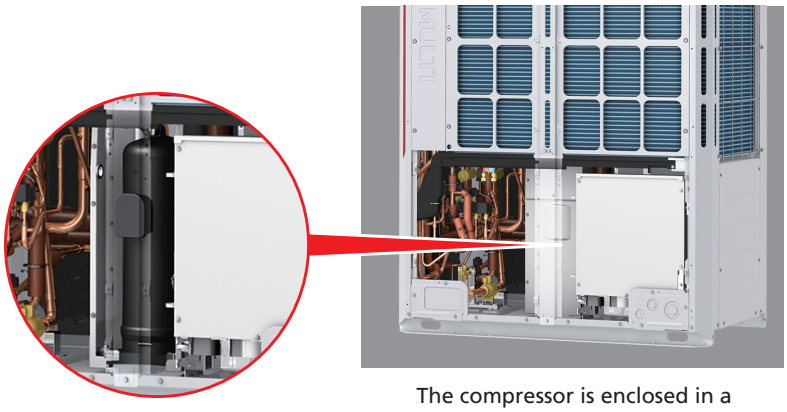
HIC Circuit Diagram



Metal Compressor Enclosure

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.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, Y-Series 575 V, R2-Series HP, R2-Series EP, R2-Series P, R2-Series 575 V



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


EXIT

Functions

COP Priority Mode

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.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series

Pump Down Function

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

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series

NOTE: To detect a refrigerant leak, a circuit that includes a refrigerant leak detection sensor must be designed and prepared on site.

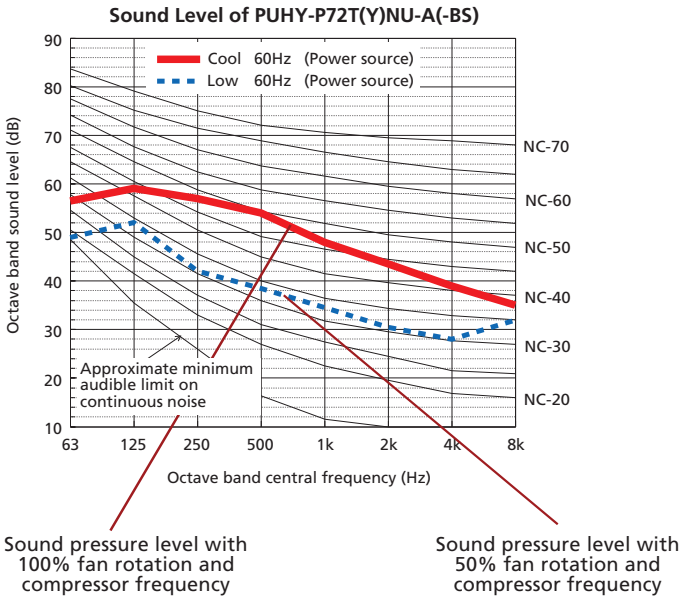
Low Noise Mode

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.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series

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

Examples of Sound Pressure Level in Low Noise Mode (PUHY-P72T(Y)NU-A : Cooling)



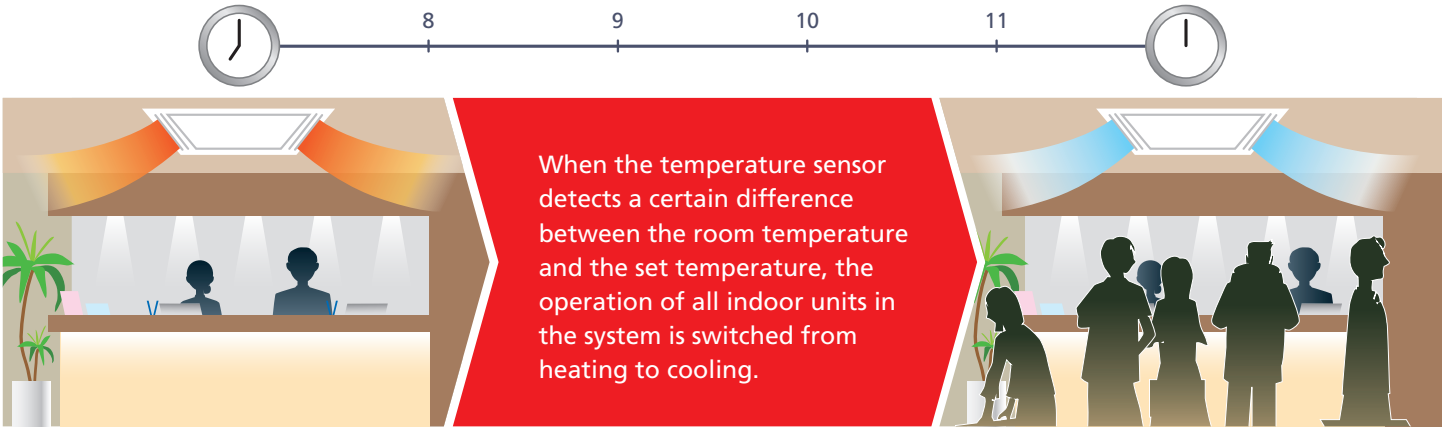
System Changeover (For Heat Pumps)

Normal Switching Between Cooling and Heating

To switch from cooling to heating with CITY MULTI®'s switchable cooling/heating models, 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). The 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.



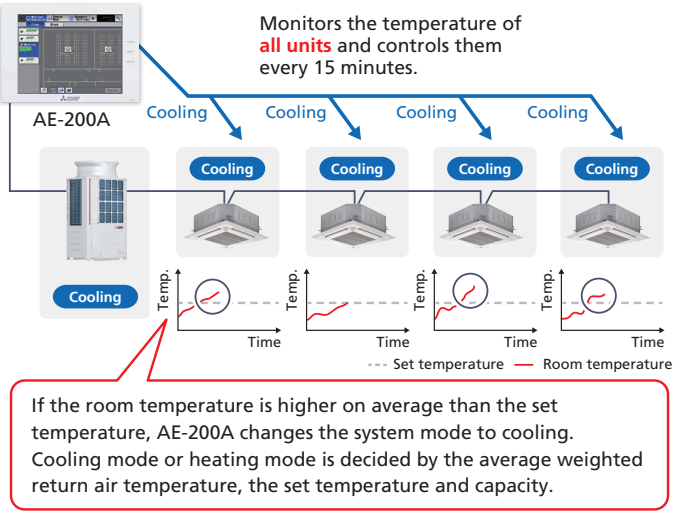
When both cooling and heating operations are required in a single day due to a large difference between the hottest and coldest times of the day.

When Using the AE-200A/AE-50A*

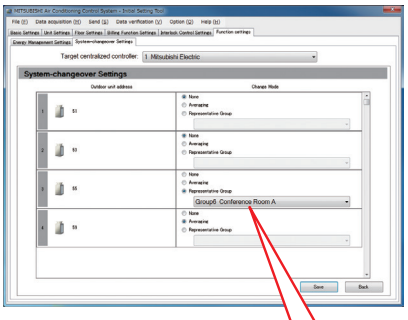
It is possible to automatically switch between cooling and heating without setting the dip switches on outdoor units. Users can select from the two types of switching patterns shown below.

- (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



Settings for the AE-200A



*To use system changeover, Initial Setting Tool Ver.1.61 or later is required.

Dual Set Point

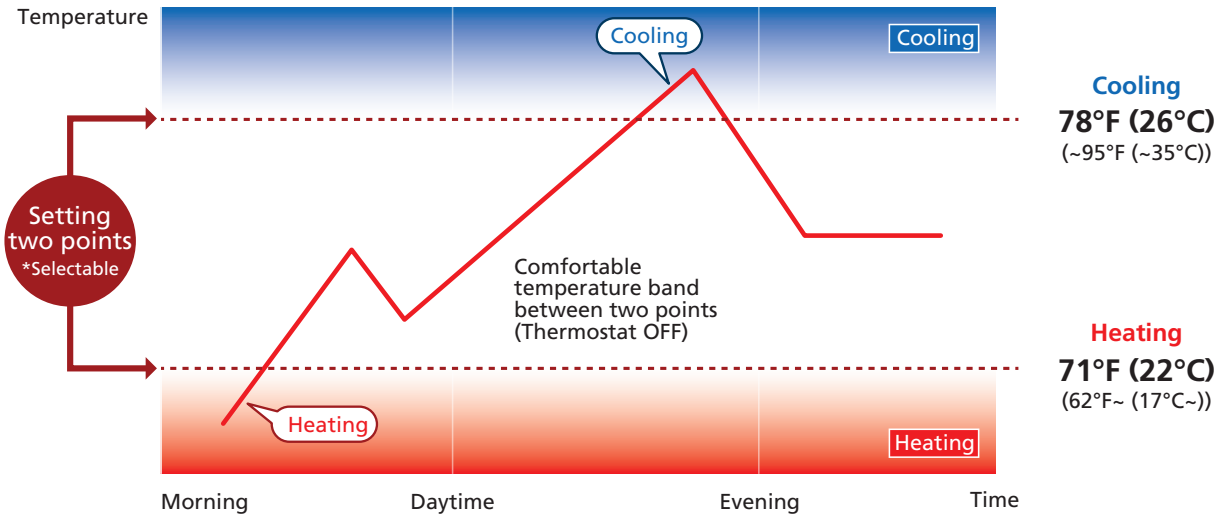
Normally, the desired room temperature is set to the same value for cooling and heating. However, the dual set point function allows different temperatures to be set for cooling and heating. When the operation switches from cooling to heating or vice versa, the preset temperature changes accordingly. 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 cooling or heating mode to keep the room temperature within the preset range. The outdoor unit does not operate in the comfortable temperature band defined by two temperature points when the thermostat is off. This cuts down on unnecessary operation of the air conditioning system.

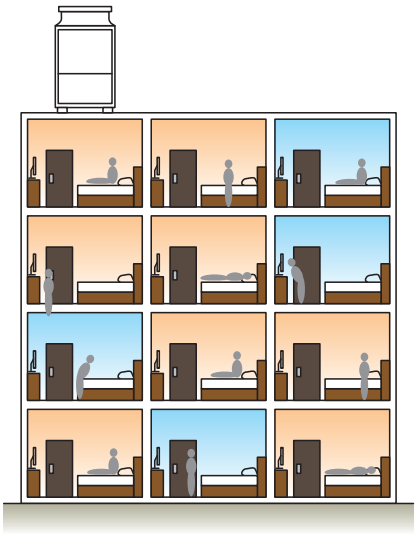
Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series

NOTES: 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

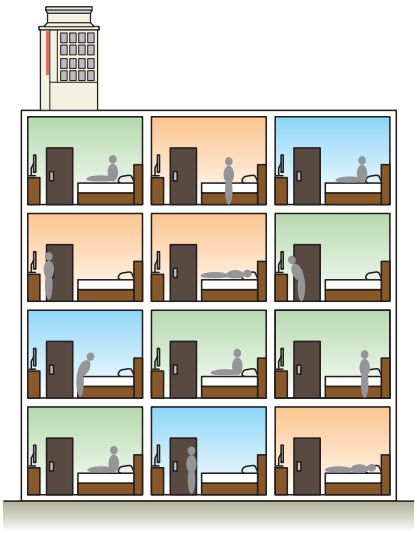


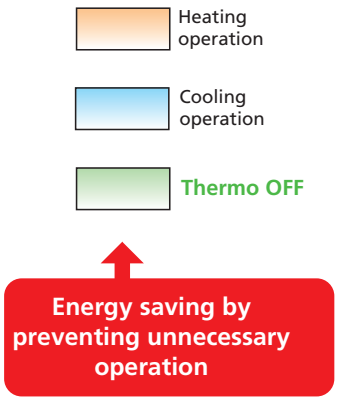
Auto Mode with Single Set Point



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.

For details of the installation restrictions, refer to the DATA BOOK.

Evaporating Temperature Control (During Cooling)

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

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP, WY-Series, WR2-Series

NOTES: Fixed temperature control only

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.

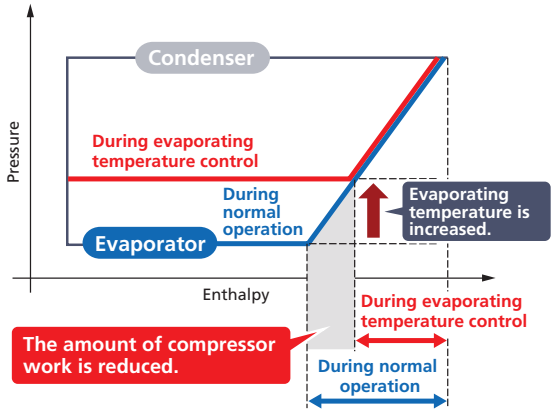
Smart Evaporating Temperature Control Mode

The evaporating temperature is increased, 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.

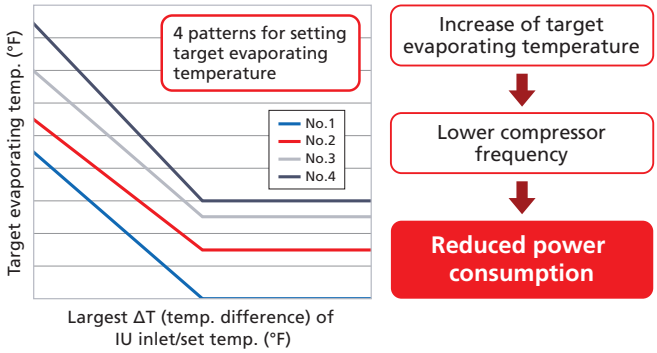
- **1.** The evaporating temperature is controlled to be constant regardless of the ΔT. It is set to a value that is higher than the normal evaporating temperature
- **2.** The evaporating temperature is controlled in accordance with the ΔT. It can be selected from 4 control patterns

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

1. Image Of Evaporating Temperature Control (Fixed Temperature Control)



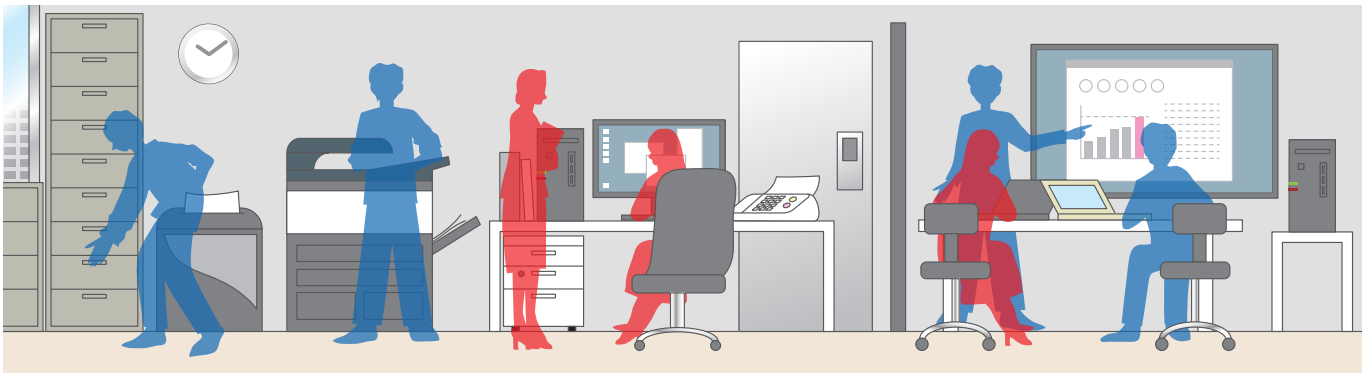
2. Image of Evaporating Temperature Control (Automatic Control in 4 Patterns)



4. To change the evaporating temperature setting, the setting of the dip switch on the outdoor unit needs to be changed.
5. When the difference between the indoor unit air-intake temperature and the actual temperature exceeds 33° F (1° C), the evaporating temperature based on this difference is constant.

Suitable Situations

- Spaces with constant high temperatures from heat sources such as OA equipment
- During low load times when air conditioners are used for cooling (like during the morning)



High Sensible Heat Operation (During Cooling)

In high sensible heat operation mode, air conditioners 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.

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP, WY-Series, WR2-Series

Image of Evaporating Temperature Control During High Sensible Heat Operation in Full Cooling Mode

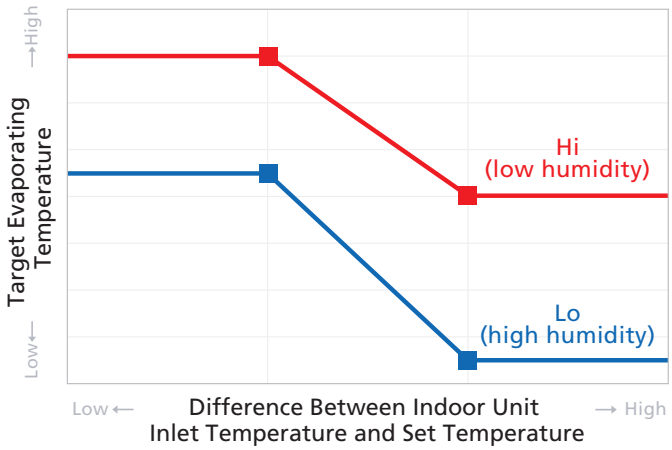
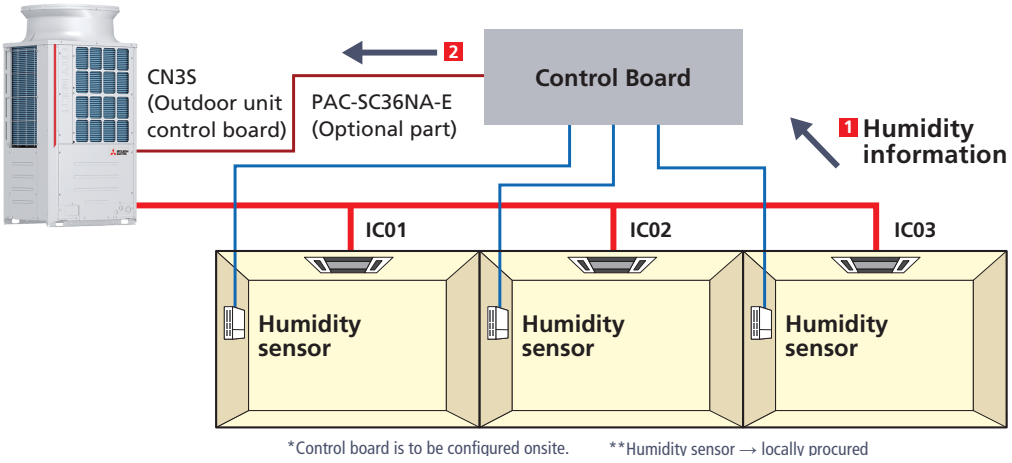


Image of Installation of Locally-procured Humidity Sensors



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

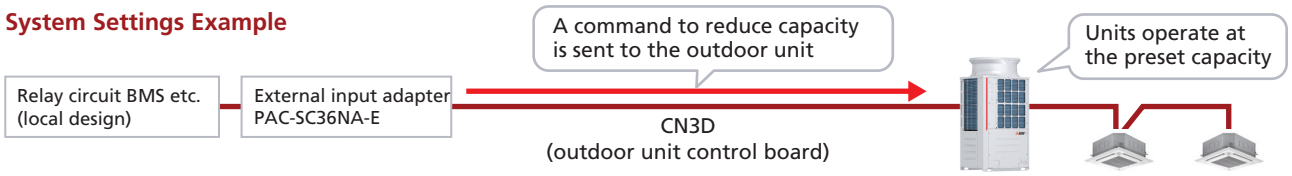
	Comfort Level in Room	Zone	Status of Outdoor Unit	Evaporating Temperature Control
Comfortable Temperature and Humidity **High sensible heat operation**	Comfortable	Humidity / Comfortable zone / Temperature	Comfortable and energy-saving operation even at low compressor rotating speed	Temperature of indoor unit refrigerant is kept high; Hi; Lo; Target evaporating temperature; Low← Difference between indoor unit inlet temperature and set temperature →High
High Humidity	Super humid!	Humidity / Comfortable zone / Temperature	Compressor rotates at medium speed to reduce humidity	Temperature of indoor unit refrigerant is slightly reduced.; Hi; Lo; Target Evaporating Temperature; Difference Between Indoor Unit Inlet Temperature and Set Temperature
High Temperature and Humidity	Uncomfortable	Humidity / Comfortable zone / Temperature	Compressor rotates at high speed to reduce temperature and humidity	Temperature of indoor unit refrigerant is greatly reduced.; Hi; Lo; Target Evaporating Temperature; Difference Between Indoor Unit Inlet Temperature and Set Temperature

Demand Control

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 12 control steps.

Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP, WY-Series, WR2-Series

System Settings Example

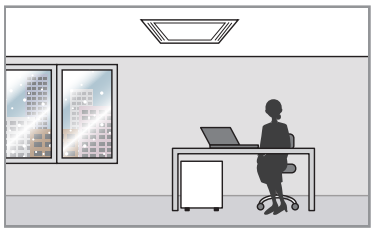


Continuous Heating Operation

Normally, it is necessary to stop the heating operation during defrosting. However, the continuous heating operation method makes it possible to perform defrosting without stopping the heating operation. Reducing the stoppage time of the heating operation suppresses a drop in room temperature. Use the dip switch on the outdoor unit to switch between the continuous heating operation method and the conventional defrosting method.

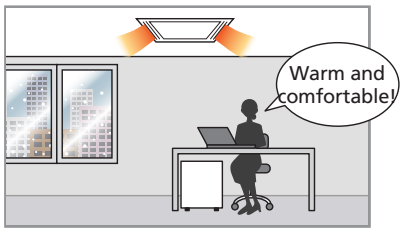
Featured Models: Y-Series HP, Y-Series EP, R2-Series HP, R2-Series EP

Conventional Defrosting Operation



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

Continuous Heating Operation



You can enjoy a comfortable environment that is continuously heated.

Image of Continuous Heating Operation (Single Unit)

The heat exchanger of the outdoor unit is divided into two parts. Even when defrosting is necessary, one part of the heat exchanger continues the heating operation.

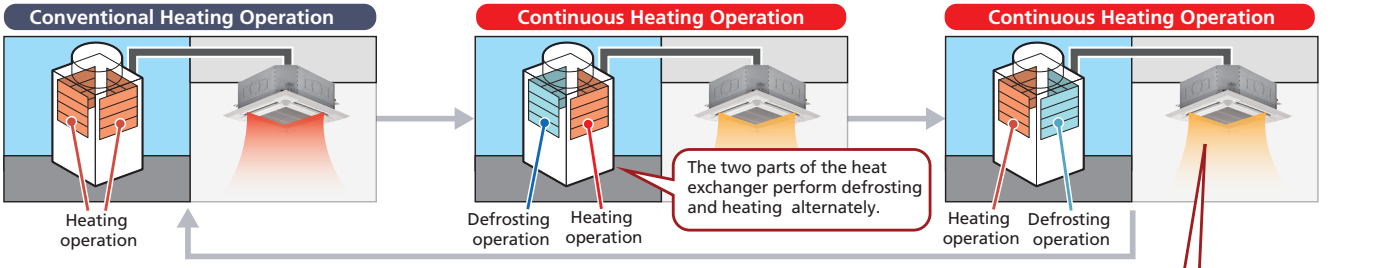
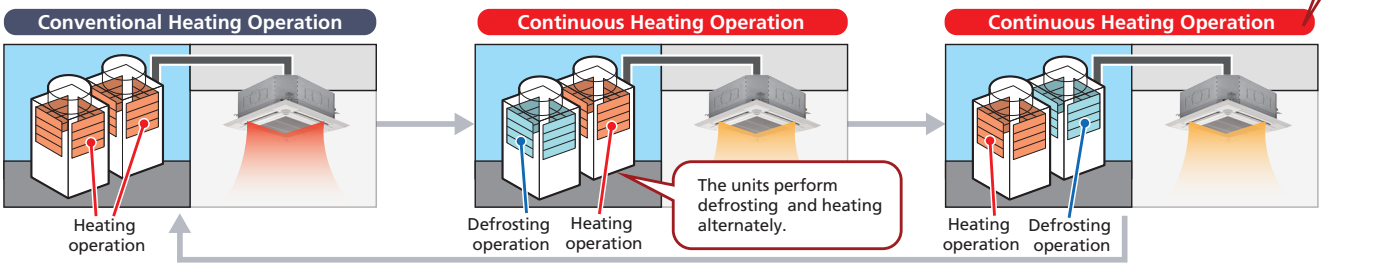


Image of Continuous Heating Operation (Combination)

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

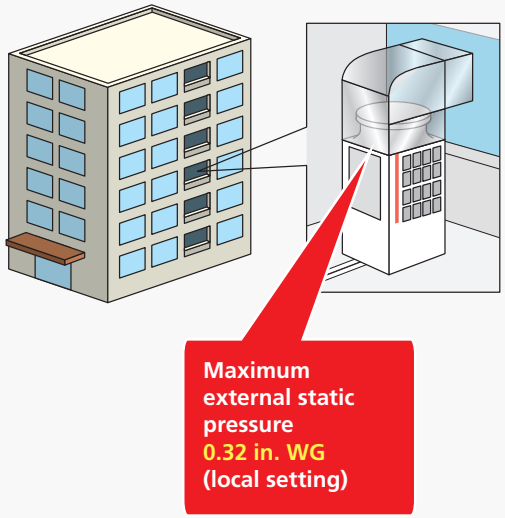


Selectable External Static Pressure of the Outdoor Unit

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

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, Y-Series, R2-Series HP, R2-Series EP, R2-Series P

NOTES: 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 DATA BOOK. PUHY-HP-T(S)NU/Y(S)NU-A, PUHY-(E)P-T(S)NU/Y(S)NU-A, PURY-HP-T(S)NU/Y(S)NU-A, PURY-(E)P-T(S)NU/Y(S)NU-A.



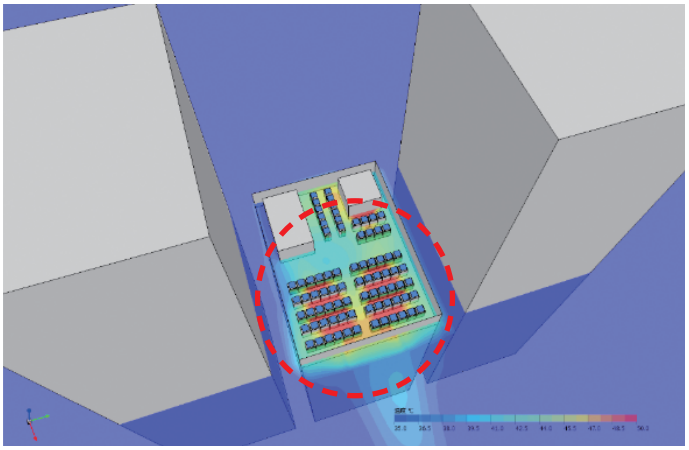
Operation at High Outside Temperature

In built-up areas where the air passage is blocked, the warm air discharged from the outdoor units may cause high temperatures around the units. N-Generation units have an expanded guaranteed operation range of up to 125° F (52° C), so it can be used reliably even if the outdoor air temperature rises abnormally.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P

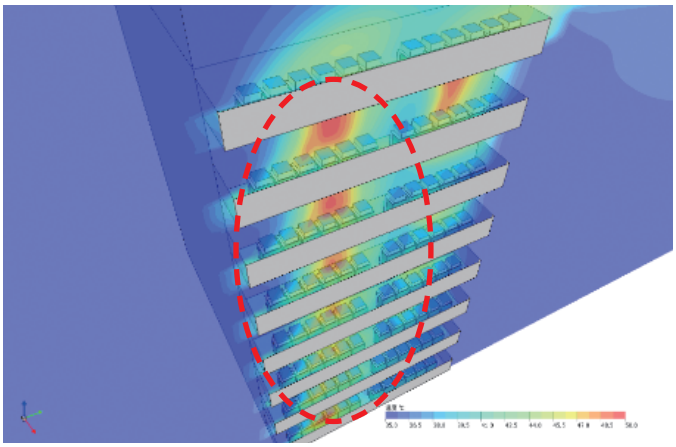
Example of Flow Analysis

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



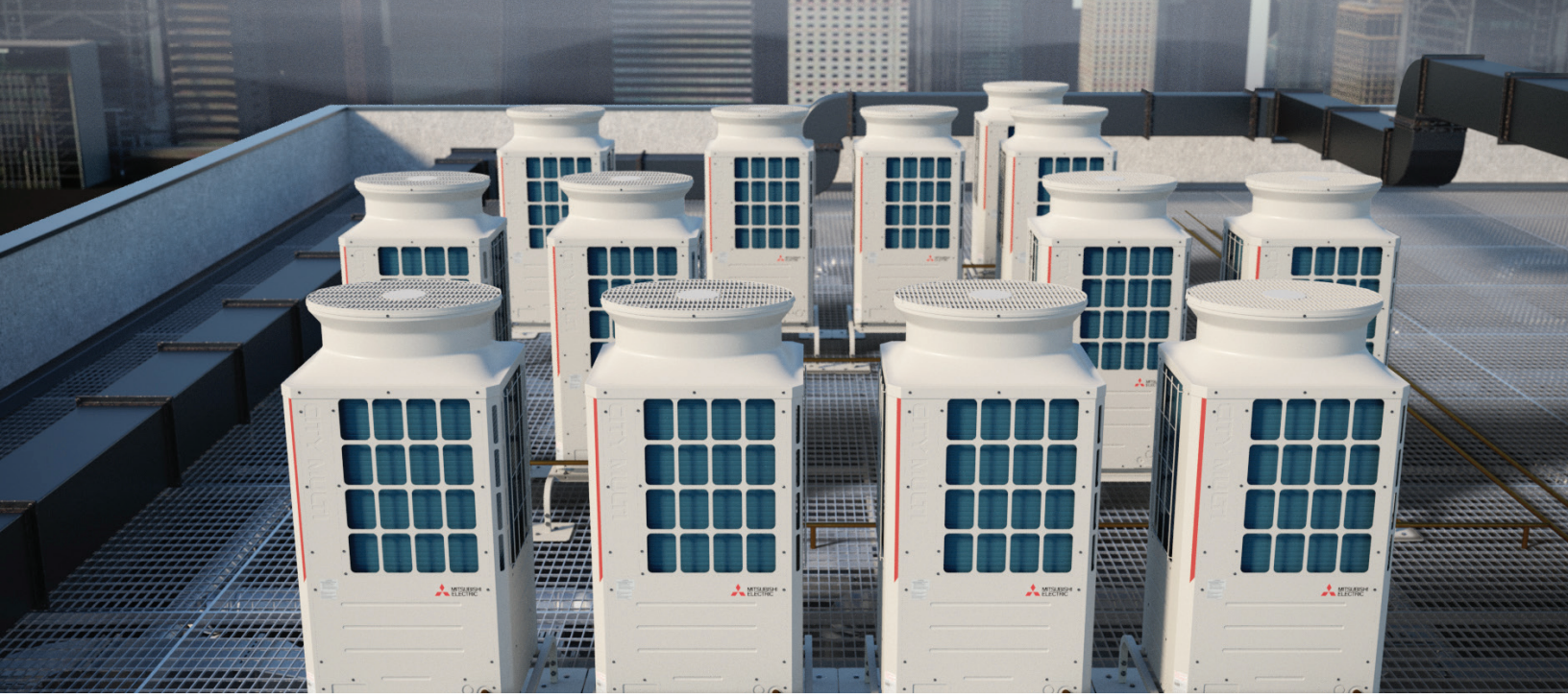
Installation on Each Floor a High-Rise Building

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

Models For Use in Outside Temperatures of up to 125° F (52° C)

(These images show the standard Y type.

PUHY-HP-T(S)NU/Y(S)NU-A
PUHY-(E)P-T(S)NU/Y(S)NU-A
PURY-HP-T(S)NU/Y(S)NU-A
PURY-(E)P-T(S)NU/Y(S)NU-A

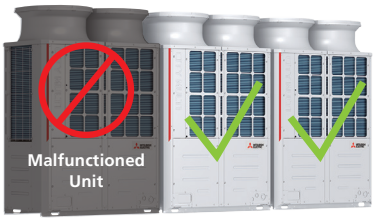


Emergency Operation Mode

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

Featured Models:

Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series,

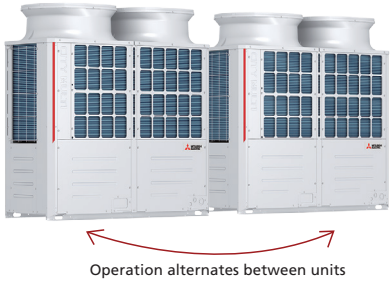


Rotation Control

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

Featured Models:

Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, WY-Series, WR2-Series

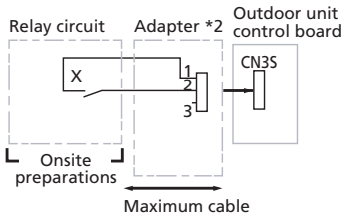


Snow Sensor Setting

When a snow buildup signal is received from the snow sensor (procured locally), or when the 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.

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P

Snow Sensor Setting Example (CN35)



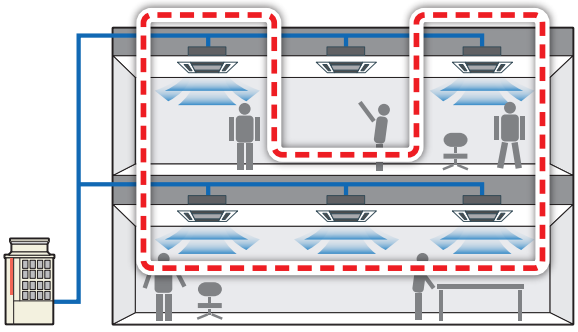
X Relay: Contact rating voltage >= 15VDC
Contact rating current >= 0.1A
Minimum applicable load =< 1mA at DC

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

Individual LEV Control

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.)

Featured Models: Y-Series HP, Y-Series EP, Y-Series P, R2-Series HP, R2-Series EP, R2-Series P, R2-Series 575 V, WY-Series, WR2-Series



Operation Tables

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

	Air Cooled			
	Heat Pump		Heat Recovery	
Model Name	PUHY-HPT(Y)NU-A1	PUHY-EPT(Y)NU-A1	PURY-HPT(Y)NU-A1	
	H2i Y-Series	Y-Series (High Efficiency)	H2i R2-Series	
Model				
Operatio				
COP Priority Mode	●	●	●	
Low Noise Mode	50, 60, 70, 85, 100%	50, 60, 70, 85, 100%	50, 60, 70, 85, 100%	
System Changeover (for heat pump)	●	●	---	
Auto Mode	---	---	●	
Dual Set Point	●*	●*	●*	
Energy Effici				
Evaporating Temperature Control (Fixed Temperature Control)	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)	
Evaporating Temperature Control (Automatic Control Shifting)	4 Patterns	4 Patterns	4 Patterns	
High Sensible Heat Operation (During Cooling)	●	●	●	
Demand Control	12 Steps	12 Steps	8 Steps	
Continuous Heating Operation During Defrost	●	●	●	
Selectable External Static Pressure of Outdoor Unit	0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa	0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa	0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa	
Operation at High Outside Temperatures	126° F (52° C)	126° F (52° C)	126° F (52° C)	
Maintenanc				
Rotation Control	●	●	●	
Emergency Operation Mode	●	●	●	
Pump Down Function	●	●	●	
Individual LEV Control	●	●	●	
Snow Sensor Setting	●	●	●	

(Should be supported by indoor unit and remote controller.)

	Heat Recovery		Water Cooled	
	Heat Recovery		Heat Pump	Heat Recovery
	PURY-EPT(Y)NU-A1	PURY-PT(Y)NU-A1	PQHY-PT(Y)LMU-A1	PQRY-PT(Y)LMU-A1
	R2-Series (High Efficiency)	R2-Series (Standard)	WY-Series	WR2-Series
				
on Mode				
	●	●	●	●
	50, 60, 70, 85, 100%	50, 60, 70, 85, 100%	50, 100%	50, 100%
	---	---	●	---
	●	●	---	●
	●*	●*	●*	●*
ency Control				
	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)	+ 43° F (6° C), + 48° F (9° C), + 57° F (14° C)
	4 Patterns	4 Patterns	4 Patterns	4 Patterns
	●	●	●	●
	8 Steps	8 Steps	8 Steps	8 Steps
	●	●	---	---
	0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa	0.12 in.WG, 0.24 in.WG, 0.32 in.WG/30 Pa, 60 Pa, 80 Pa	---	---
	126° F (52° C)	126° F (52° C)	---	---
e Functions				
	●	●	●	●
	●	●	●	●
	●	●	●	●
	●	●	●	●
	●	●	---	---

Product Range

System			Air Cooled										
Type			Heat Pump										
Model Name			H2i Y-Series 208-230 V						H2i Y-Series 460V					
			PUHY-HP TNU-A1			PUHY-HP TNU-A1			PUHY-HP YNU-A1			PUHY-HP YSNU-A1		
Model														
Ton	BTU/h	Modules	S	L	XL	S	L	XL	S	L	XL	S	L	XL
6	72K	P72		72K						72K				
8	96K	P96		96K						96K				
10	120K	P120		120K						120K				
12	144K	P144				72K 72K							72K 72K	
14	168K	P168												
16	192K	P192				96K 96K							96K 96K	
18	216K	P216												
20	240k	P240				120K 120K							120K 120K	

(Should be supported by indoor unit and remote controller.)

System			Air Cooled												
Type			Heat Pump												
Model Name			Y-Series (High Efficiency) 208-230 V							Y-Series (High Efficiency) 460 V					
			PUHY-EP TNU-A1				PUHY-EP TSNU-A1			PUHY-EP YNU-A1			PUHY-EP YSNU-A1		
Model															
Ton	BTU/h	Modules	S	L	XL	EXL	S	L	XL	S	L	XL	EXL	S	L	XL
6	72K	P72	72K							72K						
8	96K	P96		96K							96K					
10	120K	P120		120K							120K					
12	144K	P144		144K							144K					
14	168K	P168			168K							168K				
16	192K	P192			192K			96K 96K				192K			96K 96K	
18	216K	P216				216K		96K 120K					216K		96K 120K	
20	240k	P240				240K		120K 120K					240K		120K 120K	
22	264K	P264					72K	96K 96K						72K	96K 96K	
24	288K	P288					72K	96K 120K						72K	96K 120K	
26	312K	P312					72K	120K 120K						72K	120K 120K	
28	336k	P336						96K 120K 120K							96K 120K 120K	
30	360K	P360						120K 120K 120K							120K 120K 120K	
32	384K	P384						120K 120K 144K							120K 120K 144K	
34	408k	P408						120K 144K 144K							120K 144K 144K	
36	432k	P432						144K 144K 144K							144K 144K 144K	

(The numbers in the table indicate the horse power, and the combination of S, L, XL, and EXL modules.)

System			Air Cooled											
Type			Heat Recovery											
Model Name			H2i R2-Series 208-230 V						H2i R2-Series 460 V					
			PURY-HP TNU-A1			PURY-HP TSNU-A1			PURY-HP YNU-A1			PURY-HP YSNU-A1		
Model														
Ton	BTU/h	Modules	S	L	XL	S	L	XL	S	L	XL	S	L	XL
6	72K	P72		72K						72K				
8	96K	P96		96K						96K				
10	120K	P120		120K						120K				
12	144K	P144					72K 72K						72K 72K	
14	168K	P168												
16	192K	P192					96K 96K						96K 96K	
18	216K	P216												
20	240k	P240					120K 120K						120K 120K	

(The numbers in the table indicate the horse power, and the combination of S, L, XL, and EXL modules.)

System			Air Cooled														
Type			Heat Recovery														
Model Name			R2-Series (High Efficiency) 208-230 V								R2-Series (High Efficiency) 460 V							
			PURY-EP TNU-A1				PURY-EP TNU-A1				PURY-EP YNU-A1				PURY-EP YSNU-A1			
Model																		
Ton	BTU/h	Modules	S	L	XL	EXL	S	L	XL	EXL	S	L	XL	EXL	S	L	XL	EXL
6	72K	P72	72K								72K							
8	96K	P96		96K								96K						
10	120K	P120		120K								120K						
12	144K	P144		144K								144K						
14	168K	P168			168K								168K					
16	192K	P192				192K		96K 96K						192K		96K 96K		
18	216K	P216				216K		96K 120K						216K		96K 120K		
20	240k	P240				240K		120K 120K						240K		120K 120K		
22	264k	P264						120K 144K								120K 144K		
24	288K	P288						144K 144K								144K 144K		
26	312K	P312						144K	168K							144K	168K	
28	336K	P336							168K 168K								168K 168K	
32	384K	P384								192K 192K								192K 192K
36	432K	P432								216K 216K								216K 216K

(The numbers in the table indicate the horse power, and the combination of S, L, XL, and EXL modules.)

System		Air Cooled	
Type		Heat Pump	
Model Name		SMART MULTI™ H2i 208-230 V	
		MXZ-SM NAMHZ	MXZ-SM NAM
Model			
Ton	BTU/h		
3	36K	MXZ-SM36NAMHZ	MXZ-SM36NAM
3.5	42K	MXZ-SM42NAMHZ	-
4	48K	MXZ-SM48NAMHZ	MXZ-SM48NAM
5	60K	-	MXZ-SM60NAM

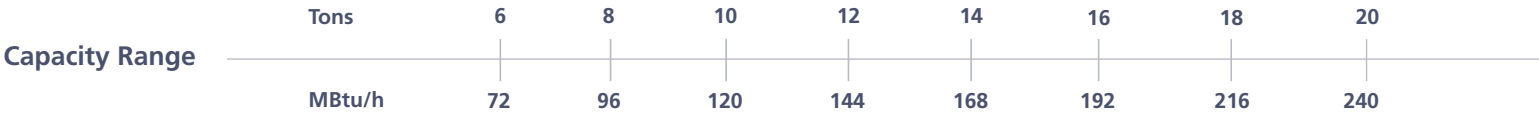
System			Water Cooled							
Type			Heat Pump							
Model Name			WY-Series 208-230 V				WY-Series 460 V			
			PQHY-P TLMU-A1		PQHY-TSLMU-A1		PQHY-P YLMU-A1		PQHY-YSLMU-A1	
Model										
Ton	BTU/h	Modules	S	L	S	L	S	L	S	L
6	72K	P72	72K				72K			
8	96K	P96	96K				96K			
10	120K	P120	120K				120K			
12	144K	P144		144K	72K 72K			144K	72K 72K	
14	168K	P168		168K	72K 96K			168K	72K 96K	
16	192K	P192		192K	96K 96K			192K	96K 96K	
18	216K	P216		216K	96K 120K			216K	96K 120K	
20	240k	P240		240K	120K 120K			240K	120K 120K	
22	264k	P264								
24	288K	P288				144K 144K				144K 144K
26	312K	P312				144K 168K				144K 168K
28	336K	P336				168K 168K				168K 168K
30	360K	P360				168K 192K				168K 192K

(The numbers in the table indicate the horse power, and the combination of S, L, XL, and EXL modules.)

System			Water Cooled							
Type			Heat Recovery							
Model Name			WR2-Series 208-230 V				WR2-Series 460 V			
			PQRY-P TLMU-A1		PQRY-TSLMU-A1		PQRY-P YLMU-A1		PQRY-YSLMU-A1	
Model										
Ton	BTU/h	Modules	S	L	S	L	S	L	S	L
6	72K	P72	72K				72K			
8	96K	P96	96K				96K			
10	120K	P120	120K				120K			
12	144K	P144		144K	72K 72K			144K	72K 72K	
14	168K	P168		168K	72K 96K			168K	72K 96K	
16	192K	P192		192K	96K 96K			192K	96K 96K	
18	216K	P216		216K	96K 120K			216K	96K 120K	
20	240k	P240		240K	120K 120K			240K	120K 120K	
22	264k	P264								
24	288K	P288				144K 144K				144K 144K
26	312K	P312				144K 168K				144K 168K
28	336K	P336				168K 168K				168K 168K

(The numbers in the table indicate the horse power, and the combination of S, L, XL, and EXL modules.)

Outdoor Unit Capacity Ranges



Y-Series Heat Pump

High-Efficiency
Cooling: 72-432 MBtu/h
Heating: 80-480 MBtu/h
PUHY up to 50 indoor units

Y-Series H2i® Heat Pump

Cooling: 72-240 MBtu/h
Heating: 80-270 MBtu/h
PURY up to 50 indoor units

R2-Series Heat Recovery

High-Efficiency
Cooling: 72-432 MBtu/h
Heating: 80-480 MBtu/h
PURY up to 50 indoor units
*32-36 ton only available for high efficiency models
30-ton combination not available

R2-Series H2i® Heat Recovery

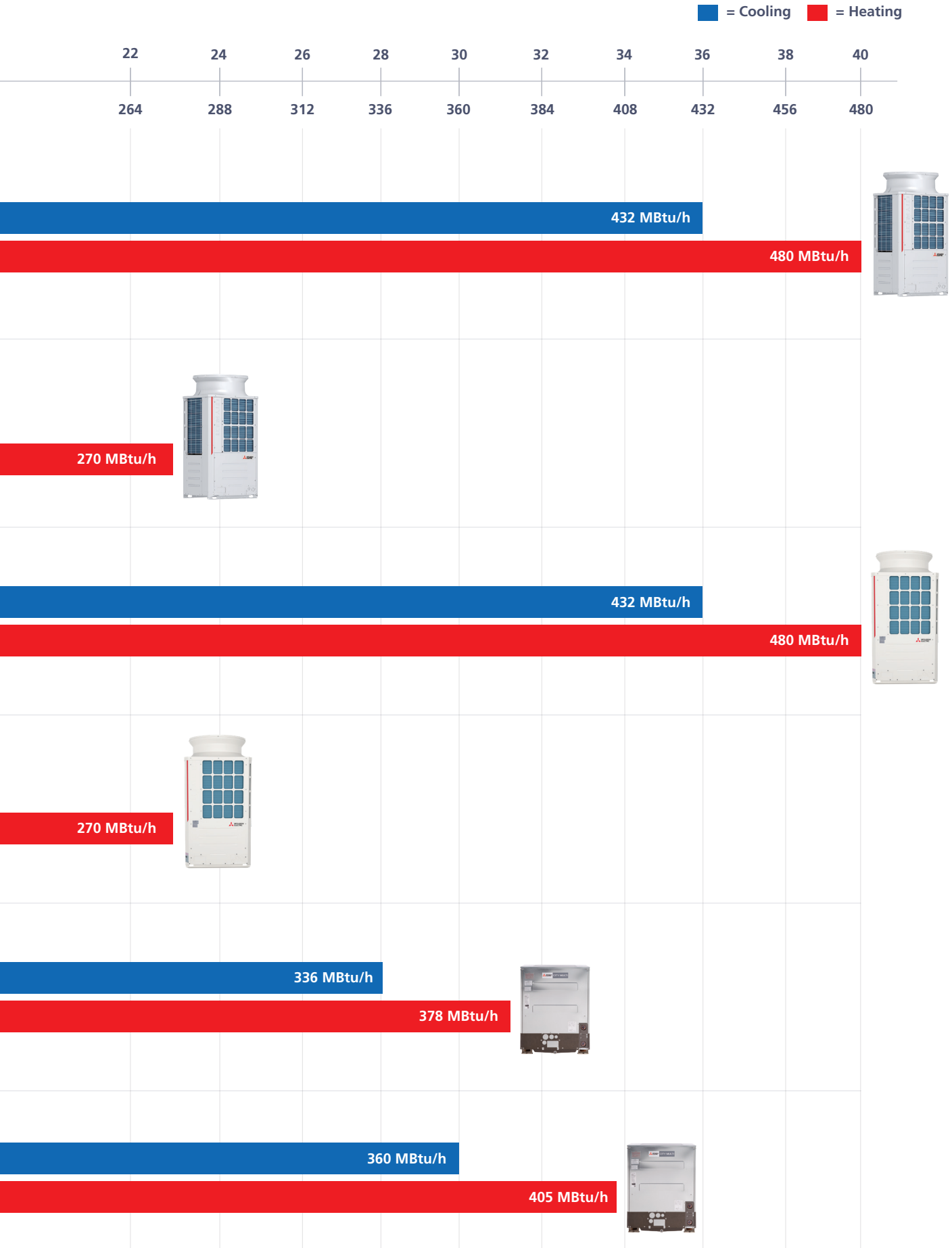
Cooling: 72-240 MBtu/h
Heating: 80-270 MBtu/h
PURY up to 50 indoor units

WR2-Series Heat Recovery

(Water-source)
Cooling: 72-336 MBtu/h
Heating: 80-378 MBtu/h
PQRY up to 50 indoor units

WY-Series Heat Pump

(Water-source)
Cooling: 72-360 MBtu/h
Heating: 80-405 MBtu/h
PQHY up to 50 indoor units

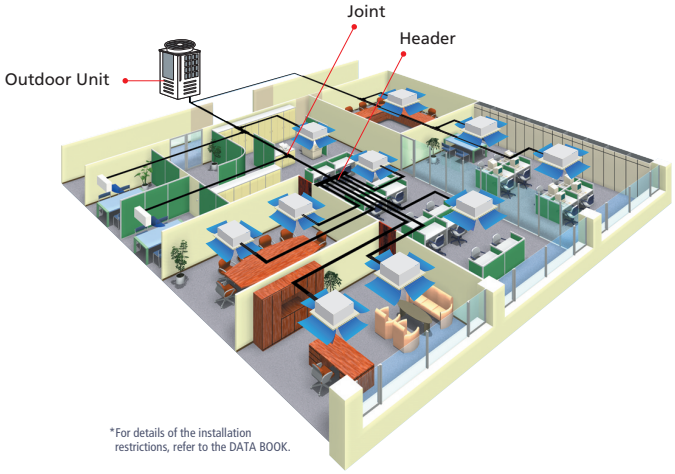

= Cooling
= Heating
22
24
26
28
30
32
34
36
38
40
264
288
312
336
360
384
408
432
456
480
432 MBtu/h
480 MBtu/h
270 MBtu/h
432 MBtu/h
480 MBtu/h
270 MBtu/h
336 MBtu/h
378 MBtu/h
360 MBtu/h
405 MBtu/h

Y-Series

H2i and High-efficiency

High-efficiency Heat Pump

The high efficiency zoned heat pump systems are flexible enough to cool or heat up to 50 individual zones, maximizing building design options, and offer a broad range of capacities, with units from 6 to 36 tons. This 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.



*For details of the installation restrictions, refer to the DATA BOOK.

System Pipe Lengths

[HP72–HP240 T(S)NU/Y(S)NU], [(E)P72–(E)P432 T(S)NU/Y(S)NU], [P72–P360 Z(S)KMU]

Maximum Refrigerant Piping Lengths [Meters]

Total Length: 3,280 [1,000]
Maximum Allowable Length: 541 (623 Equivalent) [165 (190)]
Farthest Indoor from First Batch: 131 [40]*1

Maximum Vertical Differentials Between Units [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 295ft [90m] 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

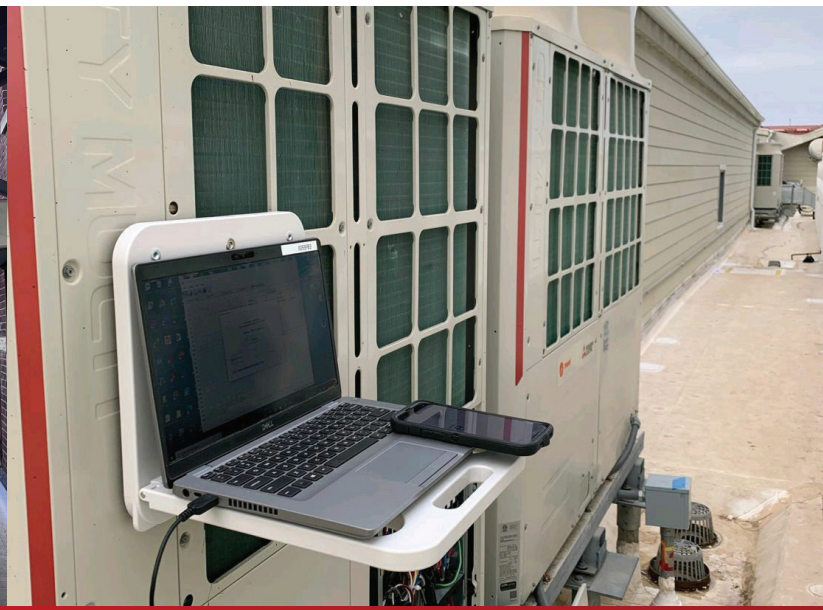
For High Efficiency and H2i Models

Description	Model	Remarks
Panel Heater Kit *1	PAC-PH01EHYU-E	For S module
	PAC-PH02EHYU-E	For L module
	PAC-PH03EHYU-E	For XL module
Twinning	CMY-Y100CBK3	For PUHY-(E)P192-(E)P240T/YSNU-A, PUHY-HP144T/YSNU-A
	CMY-Y300CBK2	For PUHY-(E)P264-(E)P432T/YSNU-A, PUHY-HP192-HP240T/YSNU-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-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
Low-Ambient Kit Product	Hoods: LAHN-1/LAHN-2/LAHN-3/LAHN-4	For CITY MULTI® outdoor units
	Guards: SWDN-1/SWDN-2	
	Guards: WDN-1/WDN-2/WDN-3	
*Snow/Hail Hoods/Guards	Guards: SGN-1/SGN-2/SGN-3/SGN-4	For CITY MULTI® outdoor units
	Hoods: SHK-1/SHN-1	

NOTE: If there is a risk that the drain water will freeze inside the outdoor unit, the installation of a panel heater is recommended. The HP models are standard-equipped with panel heaters. For details, refer to the installation manual for the panel heater. P/EP models are standard equipped with fin guard.

*Low-Ambient Kit Product:
Hoods: LAHN-1/LAHN-2/LAHN-3/LAHN-4
Guards: SWDN-1/SWDN-2
Guards: WDN-1/WDN-2/WDN-3

*Snow/Hail Hoods/Guards:
Guards: SGN-1/SGN-2/SGN-3/SGN-4
Hoods: SHK-1/SHN-1

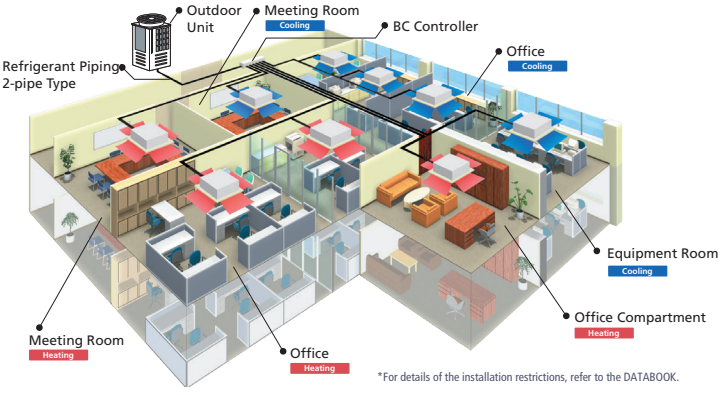


R2-Series

H2i, High-efficiency and Standard

High-efficiency Heat Pump

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. 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.



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

System Pipe Lengths

[HP72–HP240 T(S)NU/Y(S)NU], [(E)P72–(E)P432 T(S)NU/Y(S)NU], [P72–P288 Z(S)KMU]

Maximum Refrigerant Piping Lengths [Meters]

Total Piping Length:
(E)P72–96TNU/YNU/ZKMU, HP72–96TNU/YNU: 1,804 [550]
(E)P120–168TNU/YNU/ZKMU, HP120–144T(S)NU/Y(S)NU: 1,968 [600]
(E)P192TSNU/YSNU/ZSKMU, EP192–240TNU/YNU, HP192TSNU/YSNU: 2,460 [750]
(E)P216–240TSNU/YSNU/ZSKMU, HP240TSNU/YSNU: 2,624 [800]
(E)P264–336TSNU/YSNU, P264–288ZSKMU: 3,116 [950]

Maximum Length Between Outdoor and Single/Main BC Controller: 370 ft [113mm]
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller.

Maximum Length Between Single/main BC Controller and Indoor And Sub-BC Controller*1: 131-295 [40-90]

Maximum Vertical Differentials Between Units [Meters]

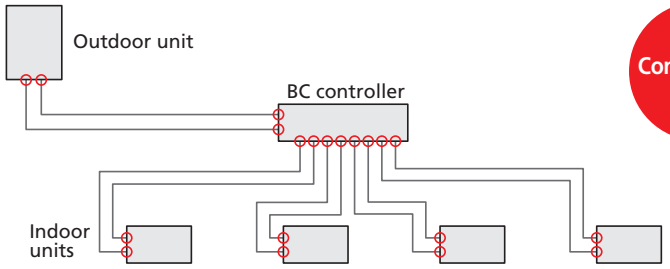
Indoor/Outdoor (Outdoor Higher): 164 [50]*3
Indoor/Outdoor (Outdoor Lower): 131 [40]*3
Indoor/Indoor: 49 [15]*4

*Maximum length between single/main BC controller and indoor is dependent upon the vertical differential between the single/main BC controller and the indoor unit.

Indoor/Indoor: 98 [30]*5
Main BC Controller/Sub-BC Controller: 49 [15]

Less Connections

2 Pipes **CITY MULTI R2**

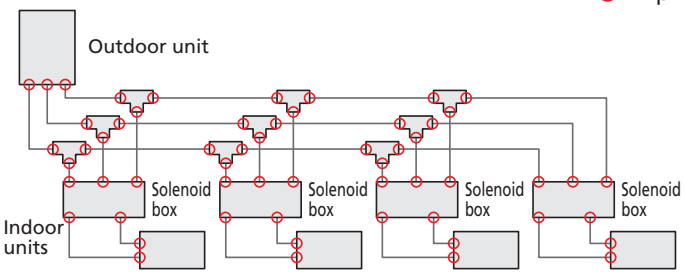


Total Connections **20**

Drastically reduces the amount of piping

3 Pipes

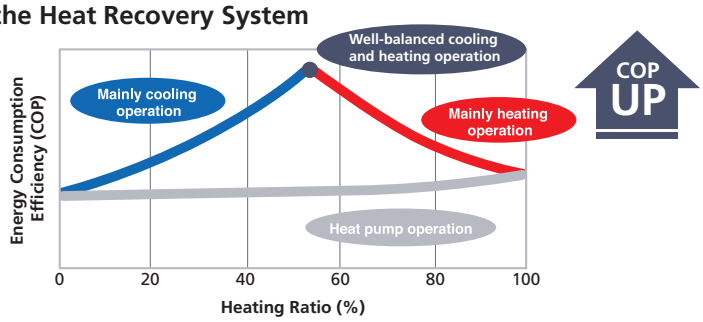
○=Piping connections



Total Connections **58**

Greater Energy Savings with Heat Recovery Operation

COP of the Heat Recovery System



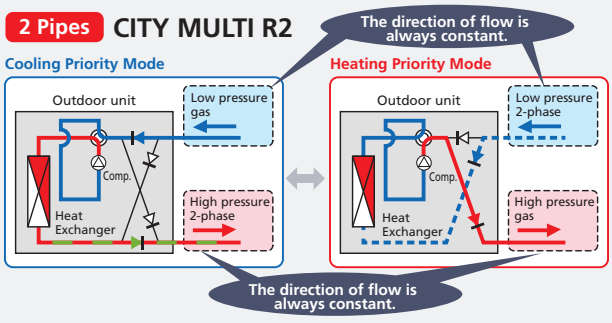
COP UP

COP of the Heat Recovery System

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

Modes Can Be Switched Without Stopping Operation

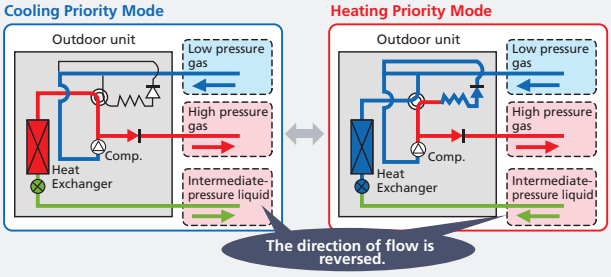
2 Pipes **CITY MULTI R2**



When Cooling/Heating Mode Switches - 2 Pipes

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

3 Pipes



When Cooling/Heating Mode Switches - 3 Pipes

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

Optional Parts

For High Efficiency and H2i Models

Description		Model	Remarks
Panel Heater Kit *1		PAC-PH01EHYU-E	For S module
		PAC-PH02EHYU-E	For L module
		PAC-PH03EHYU-E	For XL module
Twinning		CMY-R100NCBK	For PURY-HP144T/YSNU-A
		CMY-R200NCBK	For PURY-(E)P192-(E)P240T/YSNU-A
		CMY-R300NCBK	For PURY-(E)P264-(E)P336T/YSNU-A, PURY-HP192-HP240T/YSNU-A
For BC Controller	Branch Pipe (Joint)	CMY-Y102SS-G2	72 or below (Total capacity of indoor unit)
		CMY-Y102LS-G2	73-96 (Total capacity of indoor unit)
	Joint and Reducer	CMY-R201S-G	126 or below (Total capacity of indoor unit)
		CMY-R202S-G	127-216 (Total capacity of indoor unit)
		CMY-R203S-G	217-234 (Total capacity of indoor unit)
		CMY-R204S-G	235-360 (Total capacity of indoor unit)
		CMY-R205S-G	361 or above (Total capacity of indoor unit)
	Reducer	CMY-R301S-G	For CMB-P104, 106, 108, 1012, 1016NU-J1 (When the outdoor unit capacity is P72 to P120)
		CMY-R302S-G	For CMB-P108, 1012, 1016NU-JA1 (When the outdoor unit capacity is P72 to P336)
		CMY-R303S-G	For CMB-P108, 1012, 1016NU-JA1 and for use with sub BC controller
		CMY-R304S-G	For CMB-P1016NU-KA1 (When the outdoor unit capacity is P72 to P336)
		CMY-R305S-G	For CMB-P1016NU-KA1 and for use with sub BC controller
		CMY-R306S-G	For CMB-P104, 108NU-KB1
	Joint Pipe Kit	CMY-R160-J1	Joint for connecting to two nozzles

*1. If there is a risk that the drain water will freeze inside the outdoor unit, the installation of a panel heater is recommended. The HP models are standard equipped with panel heaters. For details, refer to the installation manual for the panel heater.
*2. P/EP models are standard equipped with fin guard.

*Low-Ambient Kit Product:
Hoods: LAHN-1/LAHN-2/LAHN-3/LAHN-4
Guards: SWDN-1/SWDN-2
Guards: WDN-1/WDN-2/WDN-3

*Snow/Hail Hoods/Guards:
Guards: SGN-1/SGN-2/SGN-3/SGN-4
Hoods: SHK-1/SHN-1

For Standard (575 V)

Description	Model	Remarks
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-Y202S-G2	For 55–96 (Total capacity of indoor unit)

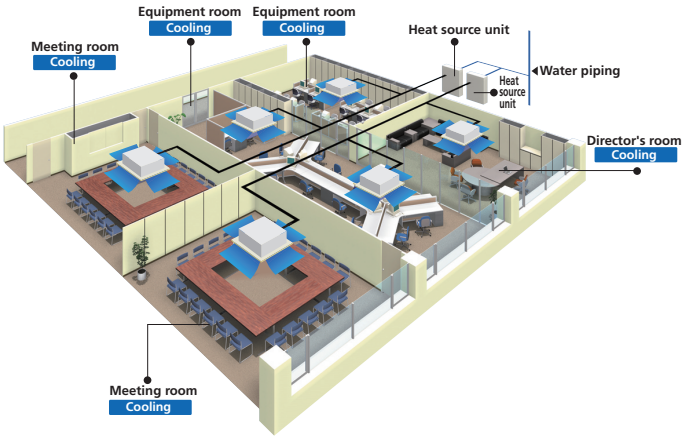
Note: Indoor unit capacities: the capacity of an indoor unit is the same as the number used for its type identification.

WY-Series

208-230V and 460V

Switchable Water Energy System

The CITY MULTI® WY-Series provides all the benefits of the Y-Series, using water-cooled heat source units. Heat source units can be situated indoors for greater design flexibility with no limitations on building size. Depending on capacity, up to 50 indoor units can be connected to a single heat source unit with individualized and/or centralized control. The two-pipe system allows all CITY MULTI units to switch between cooling and heating while maintaining a constant indoor temperature.



System Pipe Lengths

[P72-P360 (WY-Series)]

Maximum Refrigerant Piping Lengths [Meters]

Total Piping Length: 984-1,640 [300-500]
Maximum Allowable Length: 541 (623 Equivalent) [165 (190)]
Farthest Indoor from First Branch: 131 [40]*2

Maximum Vertical Differentials Between Units [Meters]

Indoor/Outdoor (Outdoor Higher): 164 [50]*3
Indoor/Outdoor (Outdoor Lower): 131 [40]*3
Indoor/Indoor: 49 [15]*4

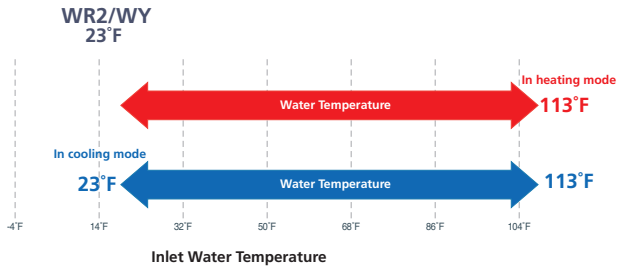
*1 When the heat source unit is installed below the indoor unit, top-bottom differential is 131ft [40m].
*2 295ft [90m] is available. When the piping length exceeds 131ft [40m], use one size larger liquid pipe starting with the section of piping where 131ft [40m] is exceeded and all piping after that point.

Geothermal Applications

CITY MULTI® water-source systems, used in geothermal and other types of applications, work by taking heat or rejecting heat from/to the ground. Closed loop systems accomplish this by circulating water through a series of wells or loops that are installed in the ground, turning the ground into a large heat exchanger. Because the ground remains relatively unaffected by outdoor ambient temperatures, the loop runs at temperatures lower than ambient temperatures throughout the cooling season and higher than ambient temperatures throughout the heating season.

Extended Temperature Range

WY-Series CITY MULTI water-source units can handle entering water temperatures down to 23° F (with the addition of glycol to the condenser water loop) in both heating and cooling mode, allowing more possibilities for geothermal applications. Coupling the water-source units with a geothermal loop will not only provide the benefit of higher efficiencies by using a lower entering water temperature, but will also provide all the benefit of an INVERTER-driven CITY MULTI system.



Optional Parts

For WY-Series

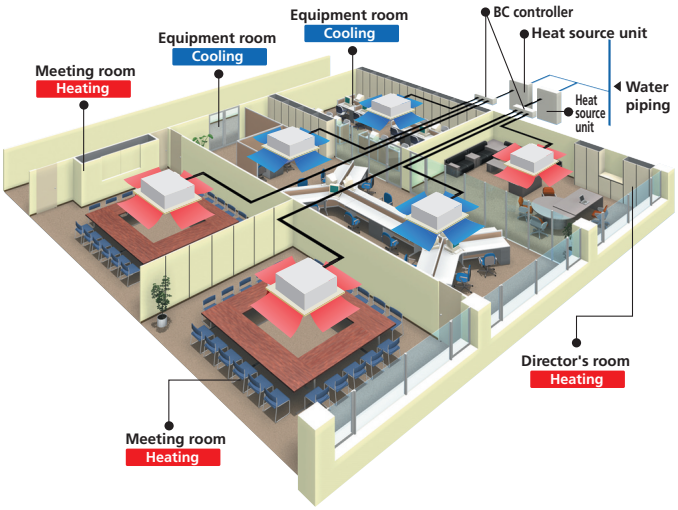
Description	Model	Remarks
Branch pipe (Joint)	CMY-Y102SS-G2	72 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	73–144 (Total capacity of indoor unit)
	CMY-Y202S-G2	The 1st branch of P96–P120 TLMU/YLMU/ZLMU
		145–240 (Total capacity of indoor unit)
		The 1st branch of P144–P192ZLMU, P144–P240TSLMU/YSLMU/ZSLMU
	CMY-Y302S-G2	241 or above (Total capacity of indoor unit)
		The 1st branch of P288–P360TSLMU/YSLMU/ZSLMU
Branch Pipe (Header)	CMY-Y104C-G	For 4 branches
	CMY-Y108C-G	For 8 branches
	CMY-Y1010C-G	For 10 branches
Twinning Kit	CMY-Y100CBK3	For PQHY-P144–P240TSLMU/YSLMU/ZSLMU
	CMY-Y200CBK2	For PQHY-P288–P360TSLMU/YSLMU/ZSLMU
Belimo EPIV SKUs	*EV150NRXEMEV	Programmed for Mitsubishi Electric outdoor units only
	*EV200ARXEMEV	

WR2-Series

208-230V and 460V

Advanced Water Energy System

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 such as high-rise buildings, cold climates, and coastal areas. 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 Pipe Lengths

[P72-P336 (WR2-Series)]

Maximum Refrigerant Piping Lengths [Meters]

Total Piping Length: 1,804-2,460 [550-750]
Maximum Allowable Length: 541 (623 Equivalent) [165 (190)]
Farthest Indoor from First Branch: 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 and Sub BC-Controller: 131 [40]*3

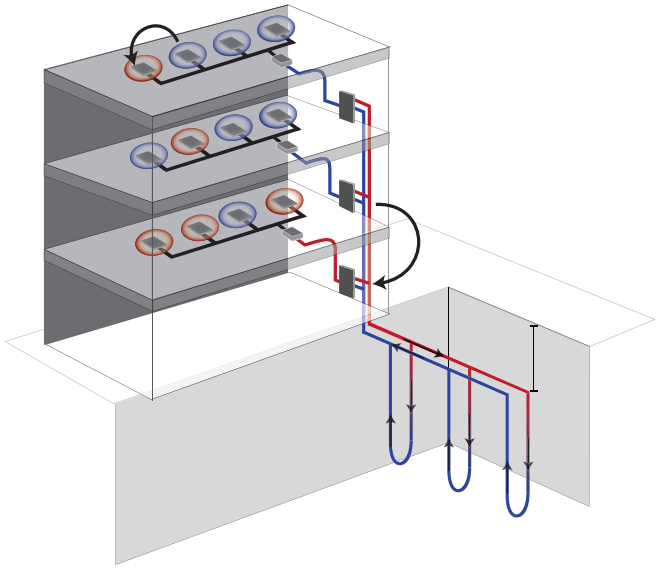
Maximum Vertical Differentials Between Units [Meters]

Indoor/Outdoor (Heat Source Higher): 164 [50]
Indoor/Outdoor (Outdoor Lower): 131 [40]
Indoor/BC Controller (Single/Main): 49 [15]*4
Indoor/Indoor: 98 [30]*5
Main BC Controller/Sub-BC Controller: 49 [15]*6t

*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 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.

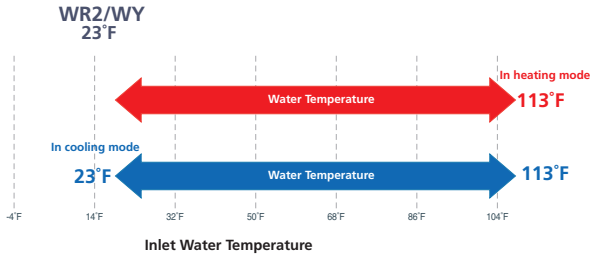
Double-Heat Recovery

The double-heat recovery feature of the WR2–Series helps recover energy that would normally be rejected to the condensing water loop. First, within the system, energy is absorbed in units providing cooling. The energy is redirected by refrigerant to units that are in heating mode. Secondarily, energy can be recovered between systems through the water loop.



Extended Temperature Range

WR2-Series CITY MULTI® water-source units can handle entering water temperatures down to 23° F (with the addition of glycol to the condenser water loop) in both heating and cooling mode, allowing more possibilities for geothermal applications. Coupling the water-source units with a geothermal loop will not only provide the benefit of higher efficiencies by using a lower entering water temperature, but will also provide all the benefit of an INVERTER-driven CITY MULTI system.



Geothermal Applications

CITY MULTI water-source systems, used in geothermal applications, work by taking heat or rejecting heat from/to the ground. Closed loop systems accomplish this by circulating water through a series of wells or loops that are installed in the ground, turning the ground into a large heat exchanger. Because the ground remains relatively unaffected by outdoor ambient temperatures, the loop runs at temperatures lower than ambient temperatures throughout the cooling season and higher than ambient temperatures throughout the heating season.

Optional Parts

For WR2-Series

Description	Model	Remarks
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)
Twinning Kit	CMY-Q100CBK2	For PQRY-P144–P240TSLMU-A/YSLMU-A/ZSLMU
	CMY-Q200CBK	For PQRY-P288–P336TSLMU-A/YSLMU-A/ZSLMU
Belimo EPIV SKUs	*EV150NRXEMEV	Programmed for Mitsubishi Electric outdoor units only
	*EV200ARXEMEV	

BC Controller

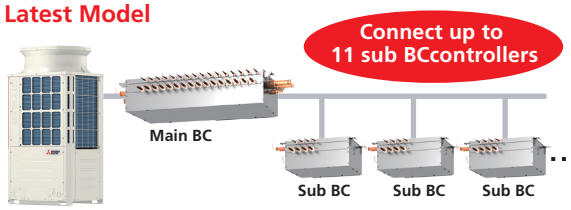
Simultaneous Heating and Cooling

Branch Controller

Connect up to 11 sub BC Controllers to one main BC Controller, greatly increasing design options. Our latest BC Controllers feature a height reduction and service access from the bottom.

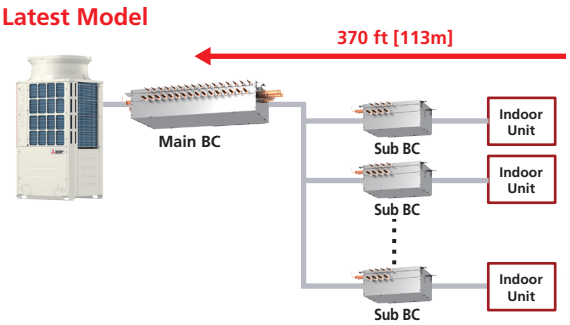
Sub BC Controller Connections Increased

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



Greater Flexibility In Refrigerant Piping Design

The piping length from the main BC controller to indoor units has been increased from 196 ft [60 m] to 370 ft [113m], providing greater flexibility in piping design.



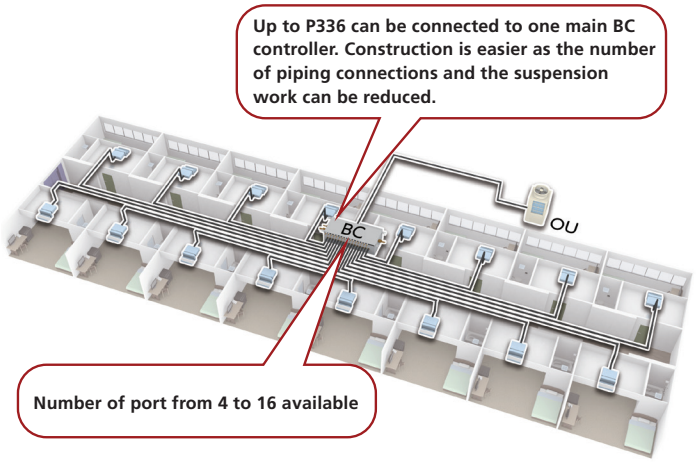
Reduced Height

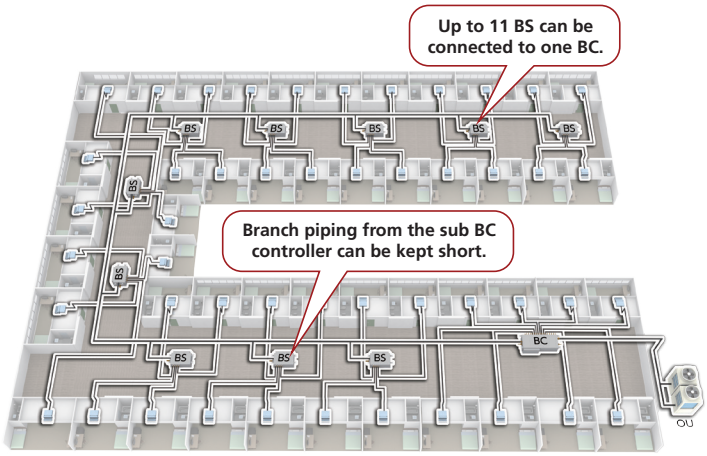
With an average lower height of 1-7/16 in. (36 mm) compared to previous sub BC controllers, the latest design can be installed in ceilings with limited space.

Optional Patterns

Pattern Using Multi-Branch Main BC Controller

Up to 11 sub BC controllers can now be connected to the latest BC controller, allowing for more flexibility in system design. The line-branching method enables the creation of system designs that use less refrigerant.





Pattern Using Line-branching Method

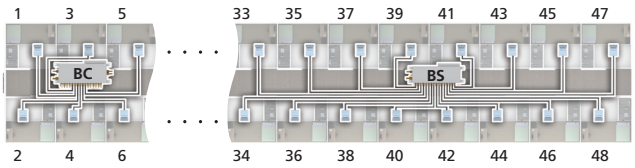
Using a Main BC Controller and Sub BC Controller

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

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

Piping Design for 48 Rooms

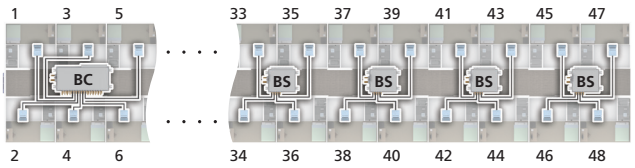
Conventional Model



Branch piping from sub BC controller is long.

*The 16 branch BC controller is an older model, and is not possible in this design. This design is not possible with the latest sub BC controller.

Latest Model

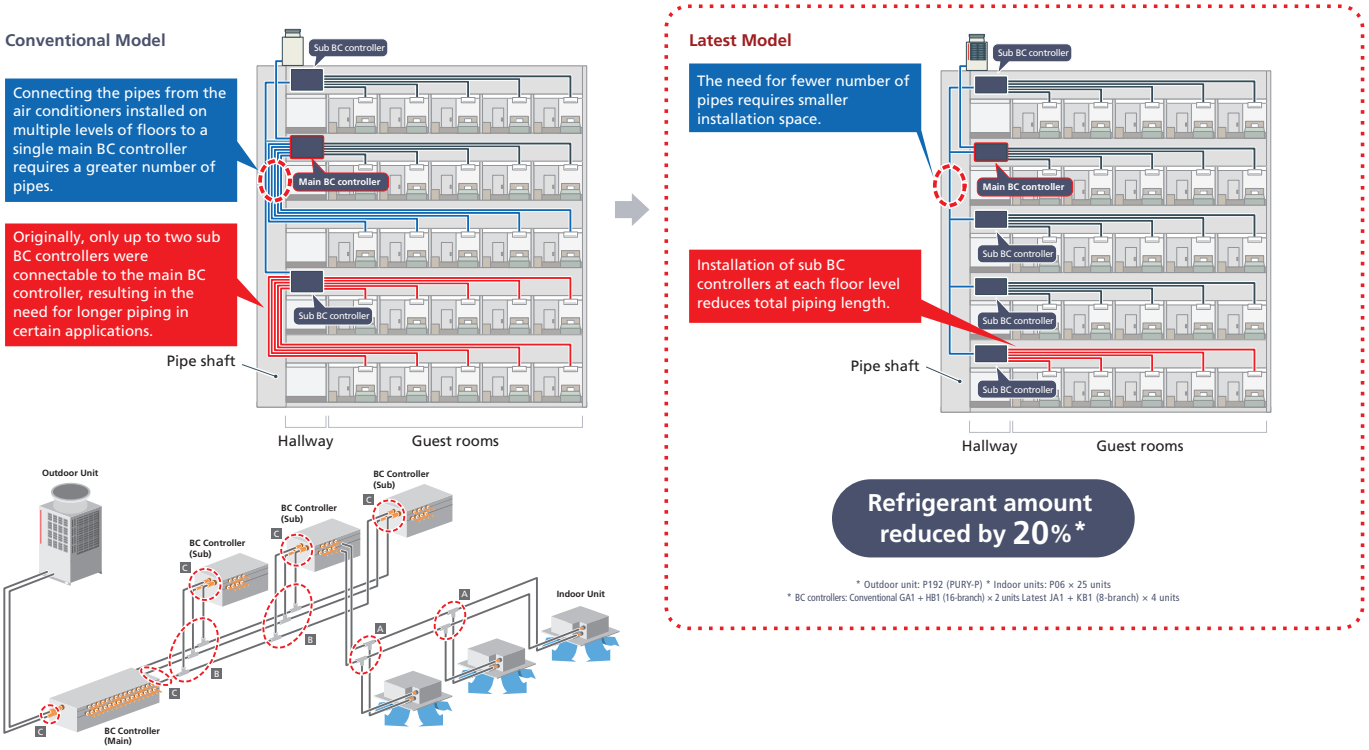


The sub BC controller can be installed near the indoor units, so the branch piping can be greatly reduced. This also reduces the length of system piping, enabling a design that uses less refrigerant.

Overall branch piping length reduced

Refrigerant Amount Reduced by 20%*

* Outdoor unit: P336
* Indoor units: P08 × 48 units
* BC controllers: Conventional HA1 + HB1 (16-branch) × 2 units
  Latest JA1 + KB1 (4-branch) × 10 units



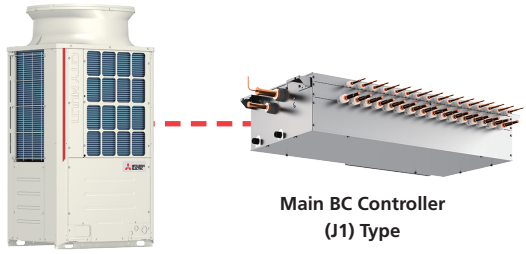
Optional Parts

For BC Controllers

Description			Model	Remarks
A	Branch pipe (Joint)	Between BC and Indoor Units	CMY-Y102SS-G2	Total down-stream indoor unit capacity: -P72
			CMY-Y102LS-G2	Total down-stream indoor unit capacity: P73-P96
B	Joint and Reducer	Between Main BC and Sub BC	CMY-R201S-G	Total down-stream indoor unit capacity: -P126
			CMY-R202S-G	Total down-stream indoor unit capacity: P127-P216
			CMY-R203S-G	Total down-stream indoor unit capacity: P217-P234
			CMY-R204S-G	Total down-stream indoor unit capacity: P217-P234
			CMY-R205S-G	Total down-stream indoor unit capacity: P361-
C	Reducer	Between Outdoor Units and BC	CMY-R301S-G	For J1 type (Outdoor unit capacity: P72-P120)
			CMY-R302S-G1	For JA1 type (Outdoor unit capacity: P72-P336)
			CMY-R304S-G1	For KA1 type (Outdoor unit capacity: P72-P432)
		Between Main BC and Sub BC	CMY-R303S-G1	For JA1 type (When using the Sub BC controller)
			CMY-R305S-G1	For KA1 type (When using the Sub BC controller)
			CMY-R306S-G	For KB1 type
D	Ball Valves	BC Controller	BV38BBSI, BV12BBSI, BV58BBSI, BV14BBSI	For main, sub and single BC Controller

Item "B" is not necessary when J1-type BC controller is used.

System with a Single BC Controller

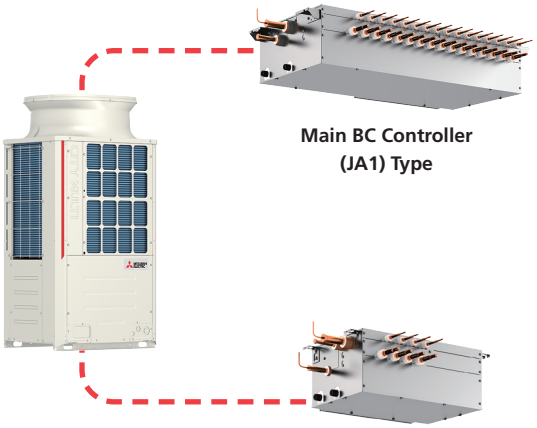


Main BC Controller
(J1) Type

Main BC Controller (J1 type)

Model	Number of Branches	Connectible Outdoor Unit Capacity
CMB-P104NU-J1	4	(E)P72 to (E)P120
CMB-P106NU-J1	6	
CMB-P108NU-J1	8	
CMB-P1012NU-J1	12	
CMB-P1016NU-J1	16	

System with Multiple BC Controllers



Main BC Controller
(JA1) Type

Sub BC Controller
(KB1) Type

Main BC Controller (JA1 and KA1 types)

Model	Number of Branches	Connectible Outdoor Unit Capacity
CMB-P108NU-JA1	8	(E)P72 to (E)P336
CMB-P1012NU-JA1	12	
CMB-P1016NU-JA1	16	
CMB-P1016NU-KA1	16	(E)P72 to (E)P432

Sub BC Controller (KB1 type)

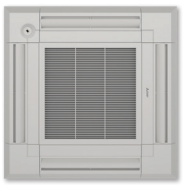
Model	Number of Branches	Connectible Outdoor Unit Capacity
CMB-P104NU-KB1	4	CMB-P108/1012/1016NU-JA1, CMB-P1016NU-KA1
CMB-P108NU-KB1	8	

Indoor Units

CITY MULTI® products feature a variety of systems so you can design the system that best meets your needs.

Indoor Unit Styles

Ceiling Cassette

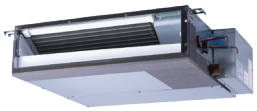


PLFY-EP NEMU

PMFY-P NBMU-E

PLFY-P NFMU

Ceiling-concealed



PEFY-P NMSU

PEFY-P NMAU

PEFY-P NMHU, PEFY-P NMHSU

PEFY-P NMHU

Wall-mounted

PKFY-P NLMU-E

PKFY-P NKMU-E2

Ceiling-suspended

PCFY-P NKMU-E

Floor Standing

PFFY-P NEMU

PFFY-P NRMU

Multi-position Air Handler

PVFY-P NAMU-E1

Specifications of Indoor Units

Model Size		P04	P05	P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
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	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	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	21.1	28.1
Nominal Cooling 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	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	23.4	31.7

Ceiling Cassette

Model Size	P04	P05	P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
PLFY-EP NEMU-E(1)			•	•	•	•	•	•		•	•	•			
PLFY-P NFMU-E		•		•	•	•	•								
PLFY-P NFMU-E			•	•	•	•									

Ceiling-concealed

Model Size	P04	P05	P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
PEFY-P NMSU-E			•	•	•	•	•	•							
PEFY-P NMAU-E3			•	•	•	•	•	•	•	•	•	•	•		
PEFY-P NMHU-E2						•	•	•	•	•	•	•	•		
PEFY-P NMHSU-E														•	•
PEFY-P NMHSU-E											•	•		•	•

Wall-mounted

Model Size	P04	P05	P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
PKFY-P NLMU-E	•		•	•	•	•	•								
PKFY-P NKMU-E2								•		•					

Multi-position Air Handler

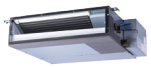
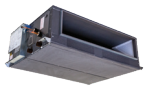
Model Size	P04	P05	P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
PCFY-P NKMU-E					•		•	•		•	•	•	•		

Ceiling-suspended

Model Size	P04	P05	P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
PCFY-P NKMU-E						•		•		•	•				

Indoor Unit Capacities

All models feature quiet operation, easy maintenance, and the ultimate in personalized comfort control. The chart below gives the capacity size for each model.

Capacity Code	Product Image	Nominal 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	72,000	96,000
Wall-mounted PKFY-P-NLMU-ER1.TH		•		•	•	•	•	•								
Wall-mounted PKFY-P--NKMU-E2R1.TH									•		•					
Ceiling Cassette (Four-way) PLFY–EP–NEMU				•	•	•	•	•	•		•	•	•			
Ceiling Cassette (Four-way) PLFY–P–NMFU			•		•	•	•	•								
Ceiling Cassette (One-way) PMFY–P–NBMU				•	•	•	•									
Ceiling-suspended PCFY–P–NKMU							•		•		•	•				
Ceiling-concealed (Ducted Low–Static) PEFY–P–NMSU				•	•	•	•	•	•							
Ceiling-concealed (Ducted Medium-Static) PEFY–P–NMAU				•	•	•	•	•	•	•	•	•	•	•		
Ceiling-concealed (Ducted High-Static) PEFY–P–NMHU/ NMHSU							•	•	•	•	•	•	•	•	•	•
Floor-mounted (Exposed/ Concealed) PFFY–P–NEMU/NRMU				•	•	•	•	•	•							
Multi-position Air Handler PVFY–P–NAMU						•		•	•		•	•	•	•		

PLFY-P

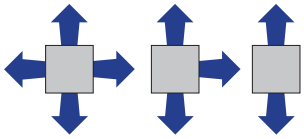
Four-way Ceiling Cassette

Optimum Airflow

The different airflow options of the Four-way ceiling cassette provide the best solution for a variety of room layouts and air–conditioning requirements. For extra versatility, you can select up to 72 airflow patterns with two- , three- , or four-way airflow.

Two-, three-, four-way Airflow Pattern Selection

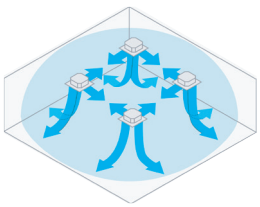
Three outlet options are available-bidirectional, three-way, and four-way-to suit different types of installation. Select, for example, the four-way pattern for installation in the center of the room and three-way pattern for installation in the corner.



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

Independent Vane Angle Settings

Vane direction can be changed or fixed from the remote controller to direct the supply air toward 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).



Built–In Condensate Lift Mechanism

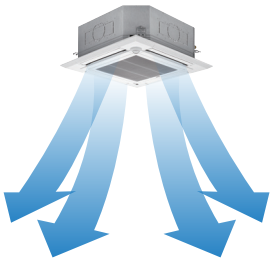
The drain piping of the PLFY-EP-NEMU can be positioned anywhere up to 33-7/16" from the ceiling's surface, allowing for long piping and versatility. The PLFY-NFMU model has a built–in pump that lifts condensate 20" from the ceiling's surface. The unit recognizes if there is a pump failure and safeguards against leaks.

High Performance and Versatility

The four–way ceiling cassette is compact and recesses easily into a ceiling space, so all you see is an attractive flush-mounted grille. The PLFY-EP-NEMU has a unit height of only 10-3/16" or 11-3/4", depending on the model. At 8-3/16" in height and 22-7/16" x 22-7/16" width, the PLFY-NFMU makes satisfying even the tightest of ceiling installations a possibility.

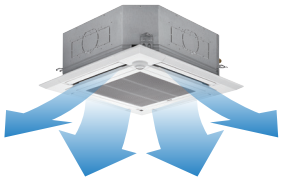
Automatic Air-speed Adjustment

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.



Previously: Strong

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

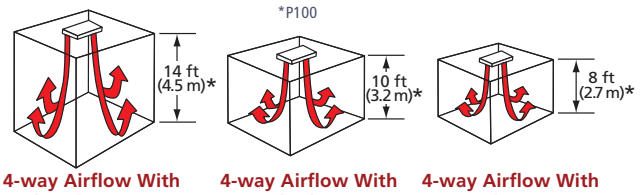


Now: Gentle

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

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.



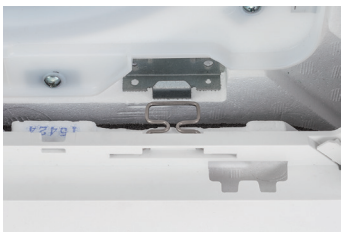
4-way Airflow With High-ceiling Setting | 4-way Airflow With Standard Setting | 4-way Airflow With Low-ceiling Setting

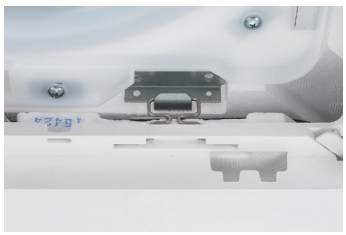
Model / Airflow Pattern	EP06–EP15			EP18–EP48		
	High-ceiling Setting	Standard Setting	Low-Ceiling Setting	High-ceiling Setting	Standard Setting	Low-Ceiling Setting
4-way	11 ft. (3.5m)	8 ft. (2.7m)	8 ft. (2.5m)	14 ft. (4.5m)	10 ft. (3.2m)	8 ft. (2.7m)
3-way	11 ft. (3.5m)	9 ft. (3.0m)	8 ft. (2.7m)	14 ft. (4.5m)	11 ft. (3.6m)	9 ft. (3.0m)
2-way	11 ft. (3.5m)	10 ft. (3.3m)	9 ft. (3.0m)	14 ft. (4.5m)	13 ft. (4.0m)	10 ft. (3.3m)

Easy Installation

Temporary Hanging Hook

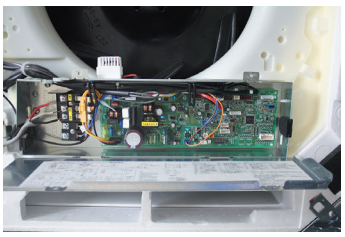
The structure of the panel has been redesigned and is now equipped with a temporary hanging hook. This improves work efficiency during panel installation.



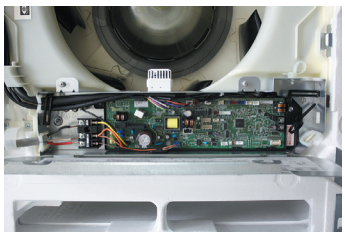


Electrical Box Wiring

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.



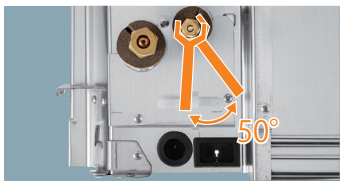
Conventional Model



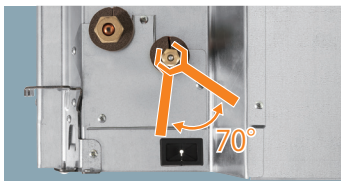
Latest Model

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.



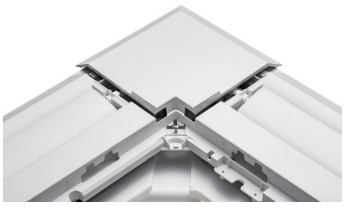
Conventional Model



Latest Model

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

PLFY-P Specifications

Specifications			System				
Unit Type			PLFY-P05NFMU-ER1.TH	PLFY-P08NFMU-ER1.TH	PLFY-P12NFMU-ER1.TH	PLFY-P15NFMU-ER1.TH	PLFY-P18NFMU-ER1.TH
Cooling capacity (Nominal)[1]		BTU/H	5,000	8,000	12,000	15,000	18,000
Heating capacity (Nominal)[1]		BTU/H	5,600	9,000	13,500	17,000	20,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60				
Power Consumption	Cooling	kW	0.02			0.03	0.04
	Heating	kW	0.02			0.03	0.04
Current	Cooling	A	0.19	.22	0.23	0.28	0.4
	Heating	A	0.14	0.17	0.18	0.23	0.35
MCA		A	0.24	0.28	0.29	0.35	0.5
Maximum Overcurrent Protection (MOCP)		A	15				
External finish			Galvanized steel sheet				
External Dimensions		In. [mm]	22-7/16 x 22-7/16 x 8-3/16 [570 x 570 x 208]				
Net weight		Lbs [kg]	28.9 [13.1]		31.3 [14.2]		
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x quantity		Turbo fan x 1				
	Airflow rate	CFM	230–265–280	230–280–315	245–280–335	265–315–390	315–390–460
	Motor type		DC motor				
	Motor Output	kW	0.05				
	Motor FLA	A	0.19	0.22	0.23	0.28	0.4
Sound pressure level (Measured in anechoic room)		dB(A)	26–28–30	26–30–33	26–30–34	28–33–39	33–39–43
Air filter			PP honeycomb fabric (long life type)				
Refrigerant	Type		R410A				
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Flare				
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare				
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]				

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automaticall runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PLFY-EP Specifications

Specifications			System				
Unit Type			PLFY-EP06NEMU1-E.TH	PLFY-EP08NEMU1-E.TH	PLFY-EP12NEMU1-E.TH	PLFY-EP15NEMU1-E.TH	PLFY-EP18NEMU1-E.TH
Cooling capacity (Nominal)[1]		BTU/H	6,000	8,000	12,000	15,000	18,000
Heating capacity (Nominal)[1]		BTU/H	6,700	9,000	13,500	17,000	20,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60				
Power Consumption	Cooling	kW	0.02			0.03	0.04
	Heating	kW	0.02				0.04
Current	Cooling	A	0.2	0.3			0.4
	Heating	A	0.1	0.3			0.4
MCA		A	0.24	0.39			0.54
Maximum Overcurrent Protection (MOCP)		A	15				
External finish			Galvanized steel sheet				
External Dimensions		In. [mm]	33-3/32 x 33-3/32 x 10-3/16 [840 x 840 x 258]				33-3/32 x 33-3/32 x 11-3/4 [840 x 840 x 258]
Net weight		Lbs [kg]	46 [21]				55 [25]
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x quantity		Turbo fan x 1				
	Airflow rate	CFM	300–424–459–494	494–530–565–600	494–530–565–565	530–547–565–600	636–671–742–812
	Motor type		DC motor				
	Motor Output	kW	0.05				0.12
	Motor FLA	A	0.19	0.31			0.43
Sound pressure level (Measured in anechoic room)		dB(A)	19–23–25–27	27–29–30–31		28–29–30–31	28–30–32–34
Air filter			PP honeycomb (long life filter, anti-bacterial type)				
Refrigerant	Type		R410A				
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Flare				
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare				
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]				

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PLFY-EP Specifications

Specifications			System			
Unit Type			PLFY-EP24NEMU1-E.TH	PLFY-EP30NEMU1-E.TH	PLFY-EP36NEMU1-E.TH	PLFY-EP48NEMU1-E.TH
Cooling capacity (Nominal)[1]		BTU/H	24,000	30,000	36,000	48,000
Heating capacity (Nominal)[1]		BTU/H	27,000	34,000	40,000	54,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60			
Power Consumption	Cooling	kW	0.04		0.07	0.11
	Heating	kW	0.04		0.07	0.11
Current	Cooling	A	0.4	0.5	0.7	1.0
	Heating	A	0.4		0.7	1.0
MCA		A	0.54	0.57	0.92	1.27
Maximum Overcurrent Protection (MOCP)		A	15			
External finish			Galvanized steel sheet			
External Dimensions		In. [mm]	33-3/32 x 33-3/32 x 11-3/4 [840 x 840 x 298]			
Net weight		Lbs [kg]	55 [25]			
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x quantity		Turbo fan x 1			
	Airflow rate	CFM	636–671–742–812	636–706–777–812	777–883–989–1,095	777–954–1,095–1,236
	Motor type		DC motor			
	Motor Output	kW	0.12			
	Motor FLA	A	0.43	0.45	0.73	1.01
Sound pressure level (Measured in anechoic room)		dB(A)	28–30–32–34	28–31–33–35	35–37–39–41	36–39–42–45
Air filter			PP honeycomb (long life filter, anti-bacterial type)			
Refrigerant	Type		R410A			
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	3/8 [9.52] Flare			
	Gas (Low Pressure)	In. [mm]	5/8 [15.88] Flare			
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PMFY-P

One-way Ceiling Cassette

One-way Cassette

The PMFY model is a ductless, one-way ceiling cassette that moves air in one direction and can introduce ventilated air. The PMFY can be accessorized with an installation trim panel (PMFY-ITP1) to ensure seamless integration into suspended ceilings.

- Available in 6,000, 8,000, 12,000 and 15,000 Btu/h
- Standardized cabinet size for all models: 31-31/32”
- Airflow control technology operates as low as 27 dB(A) for industry-leading quiet performance
- Integrated condensate lift mechanism to provide up to 23-5/8” of lift
- Full unit access through front cover panel

Ceiling-mounted Installation

Installing a one-way airflow 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 bookshelves 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 31-31/32 in. (812 mm) for easy installation. Body weight is only 31 Ibs (14 kg) for the main unit and 7 Ibs (3 kg) for the panel, making this unit one of the lightest in the industry.

PMFY-P Specifications

Specifications			System			
Unit Type			PMFY-P06NBMU-ER6	PMFY-P08NBMU-ER6	PMFY-P12NBMU-ER6	PMFY-P15NBMU-ER6
Cooling capacity (Nominal)[1]		BTU/H	6,000	8,000	12,000	15,000
Heating capacity (Nominal)[1]		BTU/H	6,700	9,000	13,500	17,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60			
Power Consumption	Cooling	kW	0.04			0.05
	Heating	kW	0.04			0.05
Current	Cooling	A	0.2			0.3
	Heating	A	0.2			0.3
MCA		A	0.25		0.26	0.33
Maximum Overcurrent Protection (MOCP)		A	15			
External finish			Galvanized sheets			
External Dimensions		In. [mm]	31-15/16 x 15-9/16 x 9-1/16 [812 x 395 x 230]			
Net weight		Lbs [kg]	31 [14]			
Heat exchanger			Cross fin			
Fan	Type x quantity		Line flow fan x 1			
	Airflow rate	CFM	230–254–283–307	258–283–304–328		272–307–343–378
	Motor type		DC brushless motor			
	Motor Output	kW	.028			
Sound pressure level (Measured in anechoic room)		dB(A)	27–30–33–35	32–34–36–37		33–35–37–39
Air filter			PP honeycomb			
Refrigerant	Type		R410A			
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Flare			
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare			
Diameter of drain pipe		In. [mm]	O.D. 1 [26]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

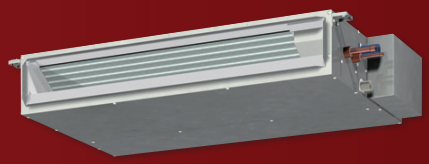
NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

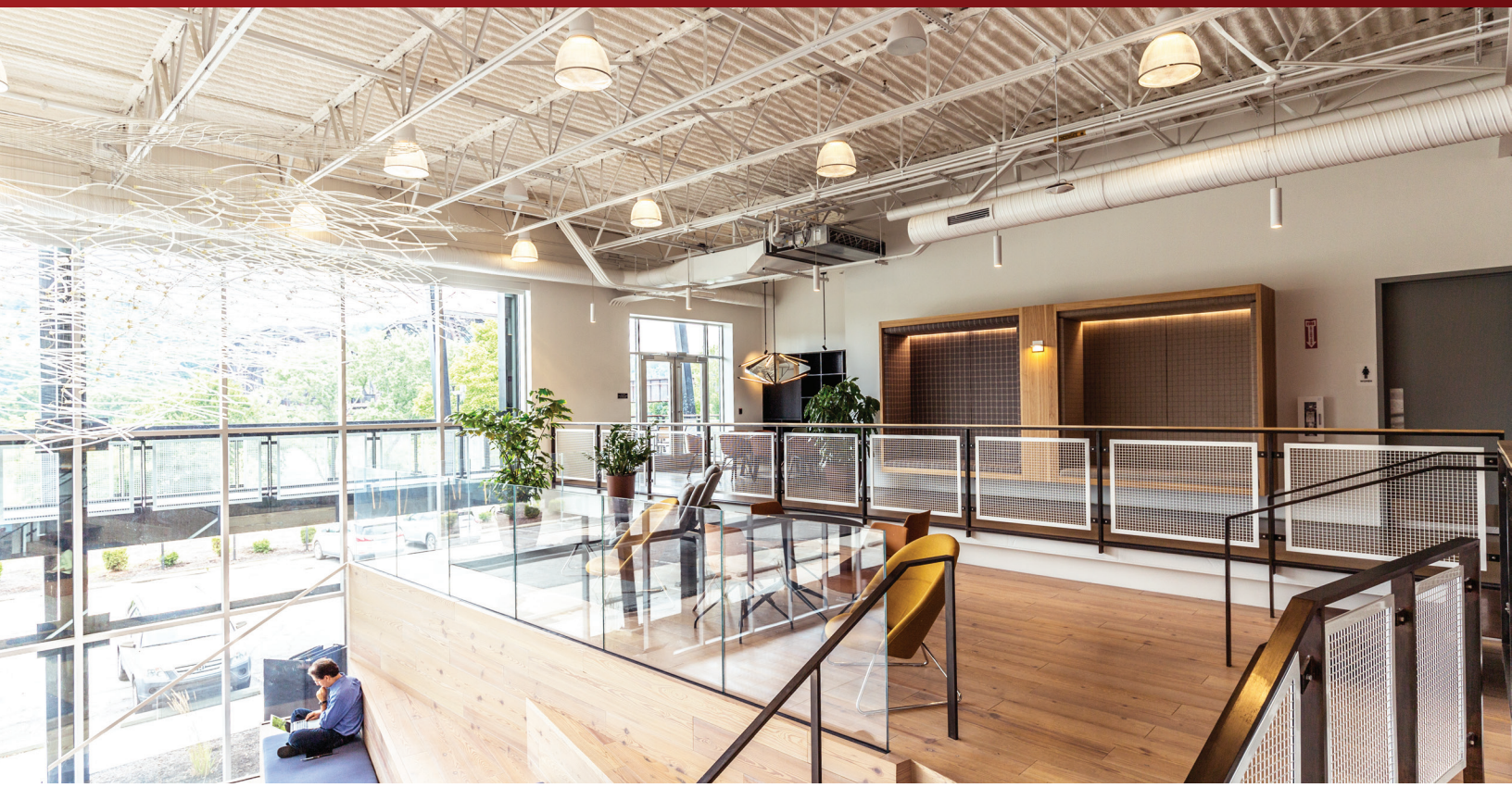
Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PEFY-P-NMSU

Low Profile Indoor Unit



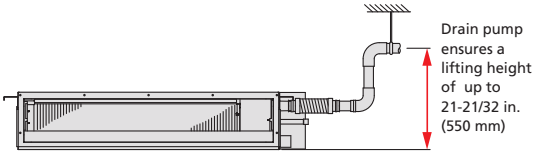


Ceiling-concealed Unit

The PEFY-NMSU Low Profile Ceiling-concealed Ducted Indoor Unit provides up to 0.2" external static pressure (adjustable). The integrated condensate lift mechanism (21-11/16" lift) allows for long piping and application versatility. Optional filter boxes with 1"-thick pleated MERV 13 filters are available. These indoor units are an excellent choice for office buildings, schools, hotels, assisted-living facilities, and other applications where ceiling space is obtainable.

Drain Pump Equipped

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



Capacities

R2-Series Capacities: 6,000 - 24,000 BTU/H

Y-Series Capacities: 6,000 - 24,000 BTU/H

S-Series Capacities: 6,000 - 24,000 BTU/H

Sound: as low as 22 dB(A)

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)

Capacity			P06	P08	P12	P15	P18	P24
Sound Pressure Level	Fan Speed	High	11 ft. (3.5m)	8 ft. (2.7m)	8 ft. (2.5m)	14 ft. (4.5m)	10 ft. (3.2m)	8 ft. (2.7m)
		Middle	11 ft. (3.5m)	9 ft. (3.0m)	8 ft. (2.7m)	14 ft. (4.5m)	11 ft. (3.6m)	9 ft. (3.0m)
		Low	11 ft. (3.5m)	10 ft. (3.3m)	9 ft. (3.0m)	14 ft. (4.5m)	13 ft. (4.0m)	10 ft. (3.3m)

PEFY-P-NMSU Specifications

Specifications			System					
Unit Type			PEFY-P06NMSU-ER2	PEFY-P08NMSU-ER2	PEFY-P12NMSU-ER2	PEFY-P15NMSU-ER2	PEFY-P18NMSU-ER2	PEFY-P24NMSU-ER2
Cooling capacity (Nominal)[1]		BTU/H	6,000	8,000	12,000	15,000	18,000	24,000
Heating capacity (Nominal)[1]		BTU/H	6,700	9,000	13,500	17,000	20,000	27,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60					
Power Consumption	Cooling	kW	0.05	0.06	0.07		0.09	0.12
	Heating	kW	0.03	0.04	0.05		0.07	0.1
Current	Cooling	A	0.4/0.4	0.5/0.5	0.6/0.5	0.6/0.6	0.7/0.7	1.0/0.9
	Heating	A	0.3/0.31	0.4/0.39	0.5/0.43	0.5/0.45	0.6/0.6	0.9/0.83
MCA		A	0.47/0.5		0.68/0.74	1.2/1.33		1.57/1.73
Maximum Overcurrent Protection (MOCP)		A	15					
External finish			Galvanized steel sheet					
External Dimensions		In. [mm]	31-1/8 x 27-9/16 x 7-7/8 [790 x 700 x 200]			39 x 27-9/16 x 7-7/8 [990 x 700 x 200]		46-7/8 x 27-9/16 x 7-7/8 [1,190 x 700 x 200]
Net weight		Lbs [kg]	42 [19]		46 [20]	54 [24]		62 [28]
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 pressure	in.WG	0.02; 0.06, 0.14, 0.2, In. WG;					
	Airflow rate	CFM	176–212–247	194–247–317	211–282–370	282–335–388	353–441–529	423–565–706
	Motor type		DC Motor					
	Motor Output	kW	0.096					
Sound pressure level (Measured in anechoic room)		dB(A)	22–24–28	23–26–30	23–28–35	28–30–33	30–35–40	30–34–37
Air filter			Polypropylene Honeycomb					
Refrigerant	Type		R410A					
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Brazed					
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Brazed					
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]					

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

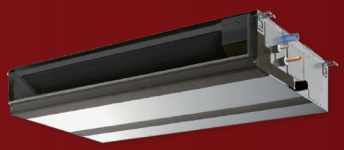
NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PEFY-P-NMAU

Mid Static Indoor Unit

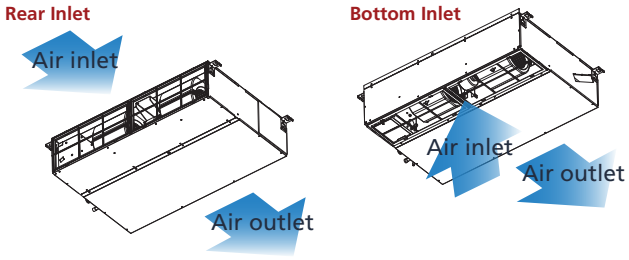


Ceiling-concealed Unit

The PEFY-NMAU Mid Static Ceiling-concealed Ducted Indoor Unit provides up to 0.6" external static pressure (adjustable). The integrated condensate lift mechanism (27-9/16" lift) allows for long piping and application versatility. Optional filter boxes with 2"-thick pleated MERV 13 filters are available. These indoor units are an excellent choice for office buildings, schools, hotels, assisted-living facilities, and other applications where ceiling space is obtainable.

Changeable Air Inlet

By only switching the closing board and air filter, the inlet layout can be altered from the rear inlet.



Capacities

R2-Series Capacities: 6,000 - 54,000 BTU/H

Y-Series Capacities: 6,000 - 54,000 BTU/H

S-Series Capacities: 6,000 - 54,000 BTU/H

Sound: as low as 26 dB(A)

Five-Stage Static Pressure Settings

Five-stage external static pressure settings provide flexibility for duct extension, branching, and air outlet configuration and are adjustable to meet different application conditions. The settings range to a maximum of 0.60 in.WG (150 Pa).

Series	06	08	12	15	18	24	27	30	36	48	54
PEFY-P NMAU-E3	0.14/0.20/0.28/0.40/0.60 in.WG										
	35/50/70/100/150 Pa										

PEFY-P-NMAU Specifications

Specifications			System					
Unit Type			PEFY-P06NMAU-E4	PEFY-P08NMAU-E4	PEFY-P12NMAU-E4	PEFY-P15NMAU-E4	PEFY-P18NMAU-E5	PEFY-P24NMAU-E4
Cooling capacity (Nominal)[1]		BTU/H	6,000	8,000	12,000	15,000	18,000	24,000
Heating capacity (Nominal)[1]		BTU/H	6,700	9,000	13,500	17,000	20,000	27,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60					
Power Consumption	Cooling	kW	0.042		0.052	0.062	0.142	
	Heating	kW	0.04		0.05	0.06	0.14	
Current	Cooling	A	0.42/0.38		0.56/0.51	0.64/0.58	1.24/1.12	
	Heating	A	0.42/0.38		0.56/0.51	0.64/0.58	1.24/1.12	
MCA		A	1.75		2.13	2.88		
Maximum Overcurrent Protection (MOCP)		A	15					
External finish			Galvanized steel sheet					
External Dimensions		In. [mm]	27-9/16 x 28-7/8 x 9-7/8 [700 x 732 x 250]			35-7/16 x 28-7/8 x 9-7/8 [900 x 732 x 250]	43-5/16 x 28-7/8 x 9-7/8 [1,100 x 732 x 250]	
Net weight		Lbs [kg]	47 [21]			58 [26]	67 [30]	
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x quantity		Sirocco fan x 1			Sirocco fan x 2		
	External Static pressure	in.WG	0.14, 0.2, 0.28, 0.4, 0.6 factory set to 0.2 In. WG					
	Airflow rate	CFM	212–265–300		265–318–371	353–424–494	618–742–883	
	Motor type		DC Motor					
	Motor Output	kW	0.085			0.121		
	Motor FLA	A	1.4		1.7	2.3		
Sound pressure level (Measured in anechoic room)		dB(A)	24–28–30		26–30–34	27–31–34	31–35–39	
Air filter			PP Honeycomb fabric					
Refrigerant	Type		R410A					
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Brazed					3/8 [9.52] Brazed
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Brazed					5/8 [15.88] Brazed
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]					

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PEFY-P-NMAU Specifications

Specifications			System				
Unit Type			PEFY-P27NMAU-E4	PEFY-P30NMAU-E5	PEFY-P36NMAU-E4	PEFY-P48NMAU-E4	PEFY-P54NMAU-E4
Cooling capacity (Nominal)[1]		BTU/H	27,000	30,000	36,000	48,000	54,000
Heating capacity (Nominal)[1]		BTU/H	30,000	34,000	40,000	54,000	60,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60				
Power Consumption	Cooling	kW	0.142	0.222		0.242	0.252
	Heating	kW	0.14	0.22		0.24	0.25
Current	Cooling	A	1.24/1.12	2.01/1.82		2.06/1.87	2.29/2.07
	Heating	A	1.24/1.12	2.01/1.82		2.06/1.87	2.29/2.07
MCA		A	2.88	4.25		4.38	
Maximum Overcurrent Protection (MOCP)		A	15				
External finish			Galvanized steel sheet				
External Dimensions		In. [mm]	43-5/16 x 28-7/8 x 9-7/8 [1,100 x 732 x 250]	55-1/8 x 28-7/8 x 9-7/8 [1,400 x 732 x 250]			63 x 28-7/8 x 9-7/8 [1,600 x 732 x 250]
Net weight		Lbs [kg]	67 [30]	84 [38]		86 [39]	91 [41]
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x quantity		Sirocco fan x 2	Sirocco fan x 3			
	External Static pressure	in.WG	0.14, 0.2, 0.28, 0.4, 0.6 factory set to 0.2 In. WG				
	Airflow rate	CFM	618–742–883	883–1,077–1,271		918–1,112–1,306	989–1,201–1,413
	Motor type		DC Motor				
	Motor Output	kW	0.121	0.3			
	Motor FLA	A	2.3	3.4		3.5	
Sound pressure level (Measured in anechoic room)		dB(A)	31–35–39	35–39–43		35–40–44	24–28–42
Air filter			PP Honeycomb fabric				
Refrigerant	Type		R410A				
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	3/8 [9.52] Brazed				
	Gas (Low Pressure)	In. [mm]	5/8 [15.88] Brazed				
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]				

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

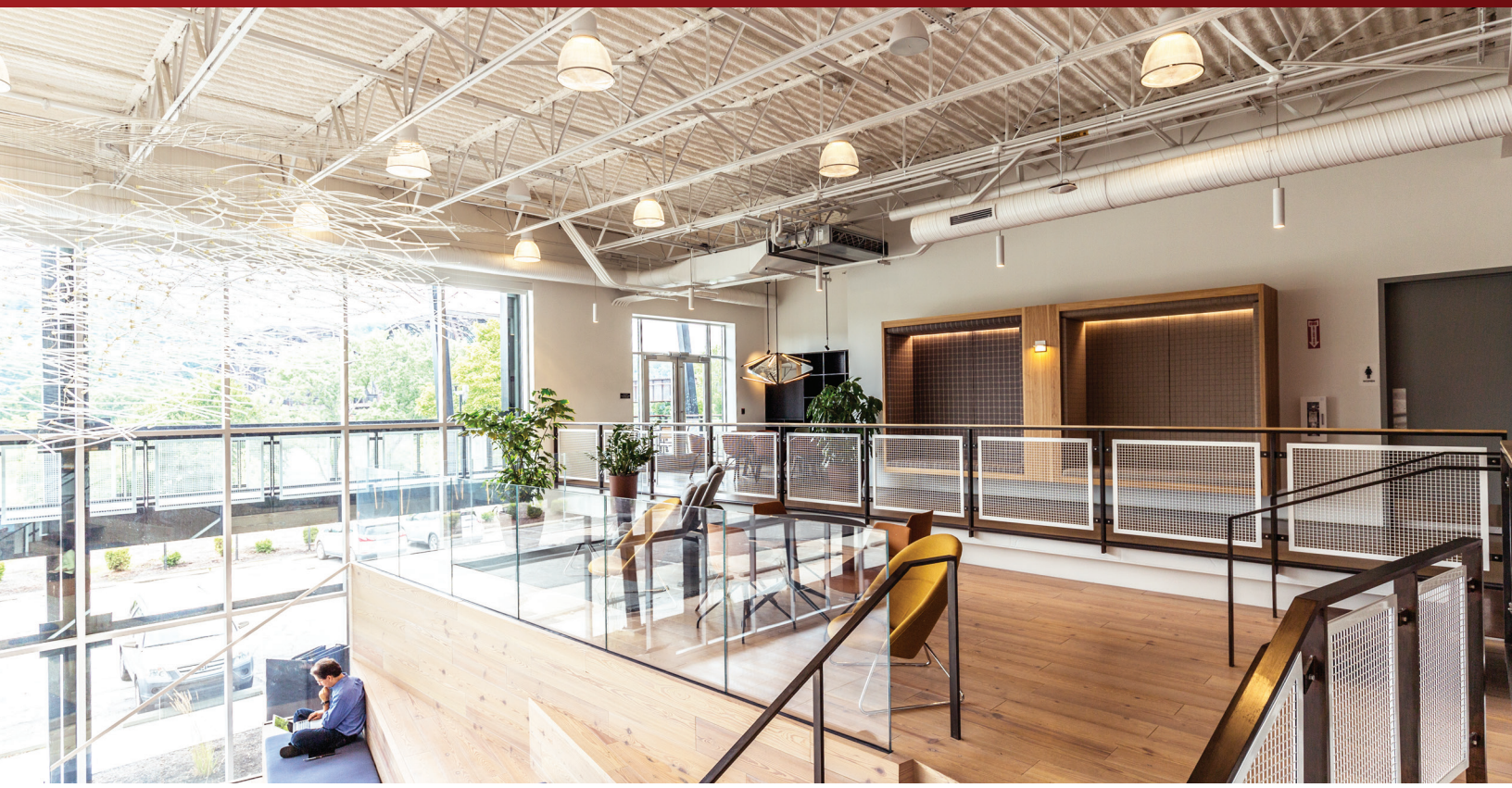
Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.


REFRIGERANT
REFRIGERANT

PEFY-P-NMH

High Static Indoor Unit



Ceiling-concealed Unit

The PEFY-NMH(S)U High Static Ceiling-concealed Ducted Indoor Unit provides over 1" external static pressure (adjustable). The integrated condensate lift mechanism (27-9/16" lift) allows for long piping and application versatility. Optional filter boxes with 4"-thick pleated MERV 13 filters are available. These indoor units are an excellent choice for office buildings, schools, hotels, assisted-living facilities, and other applications where ceiling space is obtainable.

Capacities

R2-Series Capacities: 15,000 - 96,000 BTU/H

Y-Series Capacities: 15,000 - 96,000 BTU/H

S-Series Capacities: 15,000 - 54,000 BTU/H

Sound: as low as 39 dB(A)

One-sided Maintenance

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

Optional Drain Pump Lift

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.

Flexible External Static Pressure

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

PEFY-P-NMH Specifications

Specifications			System				
Unit Type			PEFY-P15NMHU-E2	PEFY-P18NMHU-E2	PEFY-P24NMHU-E2	PEFY-P27NMHU-E2	PEFY-P30NMHU-E2
Cooling capacity (Nominal)[1]		BTU/H	15,000	18,000	24,000	27,000	30,000
Heating capacity (Nominal)[1]		BTU/H	17,000	20,000	27,000	30,000	34,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60				
Power Consumption	Cooling	kW	0.188/0.207		0.245/0.270	0.270/0.297	0.326/0.360
	Heating	kW	0.188/0.207		0.245/0.270	0.270/0.297	0.326/0.360
Current	Cooling	A	1.3/1.3		1.6/1.4	1.9/1.7	2.2/2.0
	Heating	A	0.2/1.14		0.5/1.32	0.8/1.62	0.1/1.89
MCA		A	1.63/1.5		2.11/1.83	2.35/2.13	2.7/2.45
Maximum Overcurrent Protection (MOCP)		A	15				
External finish			Galvanized steel plate				
External Dimensions		In. [mm]	29-3/8 x 35-7/16 x 15 [745 x 900 x 380]			40-9/6 x 35-7/16 x 15 [1,030 x 900 x 380]	40-9/16 x 35-7/16 x 15 [1,030 x 900 x 380]
Net weight		Lbs [kg]	98 [44]		100 [45]	124 [56]	
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x quantity		Sirocco fan x 1				
	External Static pressure	in.WG	0.40/0.60, 1.0, factory set to factory set to 0.60 In. WG				
	Airflow rate	CFM	353–494		477–671	547–777	636–883
	Motor type		1-phase induction motor				
	Motor Output	kW	.17		.25	.26	.31
Sound pressure level (Measured in anechoic room)		dB(A)	39–45		40–46	38–44	
Refrigerant	Type		R410A				
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Brazed		3/8 [9.52] Brazed		
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Brazed		5/8 [] Brazed	[] Brazed	
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]				

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PEFY-P-NMH Specifications

Specifications			System				
Unit Type			PEFY-P36NMHU-E2	PEFY-P48NMHU-E2	PEFY-P54NMHU-E2	PEFY-P72NMHSU-E	PEFY-P96NMHSU-E
Cooling capacity (Nominal)[1]		BTU/H	36,000	48,000	54,000	72,000	96,000
Heating capacity (Nominal)[1]		BTU/H	40,000	54,000	60,000	80,000	108,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60				
Power Consumption	Cooling	kW	0.683/0.754		0.695/0.767	0.63	0.82
	Heating	kW	0.683/0.754		0.695/0.767	0.63	0.82
Current	Cooling	A	3.1/2.7		3.1/2.8	3.7/3.3	4.9/4.4
	Heating	A	1.0/2.63		0.0/2.67	0.7/3.32	0.9/4.43
MCA		A	4.16/3.67		4.18/3.69	1.7	8.2
Maximum Overcurrent Protection (MOCP)		A	15				
External finish			Galvanized steel plate				
External Dimensions		In. [mm]	47-1/16 x 35-7/16 x 15 [1,195 x 900 x 380]			49-1/4 x 44-1/8 x 18-9/16 [1,250 x 1,120 x 470]	
Net weight		Lbs [kg]	153 [69]		157 [71]	214 [97]	221 [100]
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x quantity		Sirocco fan x 1				
	External Static pressure	in.WG	0.40/0.60, 1.0, factory set to factory set to 0.60 In. WG			0.20, 0.4, 0.6, 0.8, 1.0 factory set to factory set to 0.60 In. WG	
	Airflow rate	CFM	936–1,342		989–1,412	1,766–2,154–2,542	2,048–2,507–2,966
	Motor type		1-phase induction motor			DC brushless motor	
	Motor Output	kW	.49		.55	.87	
Sound pressure level (Measured in anechoic room)		dB(A)	40–46		41–47	36–39–43	39–42–46
Refrigerant	Type		R410A				
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	3/8 [9.52] Brazed				
	Gas (Low Pressure)	In. [mm]	[] Brazed			3/4 [19.05] Brazed	7/8 [22.22] Brazed
Diameter of drain pipe		In. [mm]	O.D. 1-1/4 [32]				

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PEFY-P-NMH Specifications

Specifications			System			
Unit Type			PEFY-P36NMHU-E-OA	PEFY-P48NMHU-E-OA	PEFY-P72NMHU-E-OA	PEFY-P96NMHU-E-OA
Cooling capacity (Nominal)[1]		BTU/H	36,000	48,000	72,000	96,000
Heating capacity (Nominal)[1]		BTU/H	21,000	28,000	43,000	57,000
Power source			208/230, 1, 60			
Power Consumption	Cooling (208/230V)	kW	0.13	0.18	0.22	0.32
	Heating (208/230V)	kW	0.14	0.2	0.24	0.33
MCA		A	3.3/0.0		4.8/0.3	
Maximum Overcurrent Protection (MOCP)		A	15			
Fan	Air Volume	CFM [m³/h]	- - - [- - -			
	Type x quantity		Sirocco fan x 1		Sirocco fan x 2	
	Airflow rate[4]	CFM	350–400–450	500–550–600	700–800–900	1,000–1,100–1,200
	External Static pressure	in.WG	0.60–0.8–1.0			
	Motor type		DC motor			
Air filter			Field supply			
Exchange Efficiency	Temperature	%	---			
	Enthalpy Cooling	%	-- -			
	Enthalpy Heating	%	---			
External finish			Galvanized steel sheet			
External Dimensions		In. [mm]	47-1/16 x 35-7/16 x 15 [1,195 x 900 x 380]		49-1/4 x 44-1/8 x 18-9/16 [1,250 x 1,120 x 470]	
Net weight		Lbs [kg]	109 [49]		177 [80]	183 [83]
Heat Exchange Material			Cross fin (Aluminum fin and copper tube)			
Blower Type			Sirocco fan			
Refrigerant Piping Dimensions	Liquid (R410A)	In. [mm]	3/8 [9.52]			
	Gas (R410A)	In. [mm]	5/8 [15.88]		3/4 [19.05]	7/8 [22.22]
Drainpipe Dimension (Two)		(H x W x L) In.	1-1/4 [32]			
Entering Air Temperature Operation Range		°F [°C]	to [to]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PVFY

Air Handler Indoor Unit

Multi-position Air Handler

The PVFY Multi-position Air Handler boasts best-in-class construction built from heavy-gauge, high-gloss powder-coated steel cabinets with 1" R4.2 foam insulation. The PVFY has an external static pressure up to 0.80" (adjustable). Optional electric heat kits are available. The multi-position design is suitable for any application, making it ideal for installation in a closet, attic, or equipment room.

Four Installation Positions

The unit can be installed in one of four different positions to suit the space. For example, install the unit vertically to minimize its footprint, or install it horizontally in a ceiling space. Suitable for various applications, requiring no additional kits, even for a down-flow configuration, making it ideal for installation in a closet, attic, or equipment room.

Capacities

R2-Series Capacities: 12,000 - 54,000 BTU/H

Y-Series Capacities: 12,000 - 54,000 BTU/H

S-Series Capacities: 12,000 - 54,000 BTU/H

Sound: as low as 27 dB(A)

Easy Maintenance

The control box, heat exchanger, and fan are in separate sections for easy maintenance. Cabinet sections are embossed with fan, coil, and other components.

Quiet Operation

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.

PVFY-P Specifications

Specifications			System			
Unit Type			PVFY-P12NAMU-E1	PVFY-P08NAMU-E1	PVFY-P18NAMU-E1	PVFY-P24NAMU-E1
Cooling capacity (Nominal)[1]		BTU/H	12,000	8,000	18,000	24,000
Heating capacity (Nominal)[1]		BTU/H	13,500	9,000	20,000	27,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60			
MCA		A	3.0			
Maximum Overcurrent Protection (MOCP)		A	15			
External finish			High-gloss polyester powder coated			
External Dimensions		In. [mm]	17 x 21-5/8 x 50-1/4 [432 x 548 x 1,275]			
Net weight		Lbs [kg]	113 [51]			
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x quantity		Sirocco fan x 1			
	External Static pressure	in.WG	0.30, 0.5, 0.8,			
	Airflow rate	CFM	280–340–400		410–497–585	515–625–735
	Motor type		DC motor			
Sound pressure level (Measured in anechoic room)		dB(A)	27–31–35		28–32–36	30–34–38
Air filter			Polypropylene Honeycomb			
Refrigerant	Type		R410A			
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Brazed			3/8 [9.52] Brazed
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Brazed			5/8 [15.88] Brazed
Diameter of drain pipe		In. [mm]	FPT 3/4 [19.05]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PVFY-P Specifications

Specifications			System			
Unit Type			PVFY-P30NAMU-E1	PVFY-P36NAMU-E1	PVFY-P48NAMU-E1	PVFY-P54NAMU-E1
Cooling capacity (Nominal)[1]		BTU/H	30,000	36,000	48,000	54,000
Heating capacity (Nominal)[1]		BTU/H	34,000	40,000	54,000	60,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60			
MCA		A	4.13		5.63	
Maximum Overcurrent Protection (MOCP)		A	15			
External finish			High-gloss polyester powder coated			
External Dimensions		In. [mm]	21 x 21-5/8 x 54-1/4 [534 x 548 x 1,378]		25 x 21-5/8 x 59-1/2 [635 x 548 x 1,511]	
Net weight		Lbs [kg]	141 [64]		172 [78]	
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x quantity		Sirocco fan x 1			
	External Static pressure	in.WG	0.30, 0.5, 0.8,			
	Airflow rate	CFM	613–744–875	767–931–1,095	980–1,190–1,400	1,040–1,262–1,485
	Motor type		DC motor			
Sound pressure level (Measured in anechoic room)		dB(A)	32–36–40	35–39–43		36–40–44
Air filter			Polypropylene Honeycomb			
Refrigerant	Type		R410A			
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	3/8 [9.52] Brazed			
	Gas (Low Pressure)	In. [mm]	5/8 [15.88] Brazed			
Diameter of drain pipe		In. [mm]	FPT 3/4 [19.05]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.


ELECTRICAL
MITSUBISHI ELECTRIC
COIL
BLOWER
FILTER
ELECTRICAL
MITSUBISHI ELECTRIC
COIL
BLOWER
FILTER

PCFY

Ceiling-suspended Indoor Unit

Suspended Indoor Unit

The PCFY Ceiling-suspended Indoor Unit is ideal for larger retail stores, commercial kitchens, classrooms, and office spaces. The auto vane and wide range outlet provide uniform air delivery to all corners of the area. An optional i-see Sensor™ scans the room temperature and occupant locations to deliver additional airflow control.

Automatic Air-speed Mode

An automatic air-speed mode automatically adjusts airflow speed to maintain comfortable room conditions at all times, changing the air speed to conditions that match the room environment. At the start of the 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.

Capacities

R2-Series Capacities: 15,000 - 54,000 BTU/H

Y-Series Capacities: 15,000 - 54,000 BTU/H

S-Series Capacities: 15,000 - 54,000 BTU/H

Sound: as low as 29 dB(A)

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.

Easy Installation

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

PCFY Specifications

Specifications			System			
Unit Type			PCFY-P15NKMU-ER2.TH	PCFY-P24NKMU-ER2.TH	PCFY-P30NKMU-ER2.TH	PCFY-P36NKMU-ER2.TH
Cooling capacity (Nominal)[1]		BTU/H	15,000	24,000	30,000	36,000
Heating capacity (Nominal)[1]		BTU/H	17,000	27,000	34,000	40,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60			
Power Consumption	Cooling	kW	0.03	0.04	0.09	0.11
	Heating	kW	0.03	0.04	0.09	0.11
Current	Cooling	A	0.35	0.41	0.83	0.97
	Heating	A	0.35	0.41	0.83	0.97
MCA		A	0.44	0.52	1.22	
Maximum Overcurrent Protection (MOCP)		A	15			
External finish			MUNSELL (6.4Y 8.9/0.4)			
External Dimensions		In. [mm]	37-13/16 x 26-3/4 x 9-1/16 [960 x 680 x 230]	50-3/8 x 26-3/4 x 9-1/16 [1,280 x 680 x 230]	63 x 26-3/4 x 9-1/16 [1,600 x 680 x 230]	
Net weight		Lbs [kg]	53 [24]	71 [32]	79 [36]	84 [38]
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x quantity		Sirocco fan x 4			
	Airflow rate	CFM	353–388–424–459	494–530–565–636	703–777–883–989	742–847–953–1,095
	Motor type		DC motor			
	Motor Output	kW	.09	.095	.16	
	Motor FLA	A	0.35	0.41	0.83	0.97
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
Air filter			PP honeycomb (long life)			
Refrigerant	Type		R410A			
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/2 [6.35] Flare	3/8 [9.52] Flare		
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare	5/8 [15.88] Flare		
Diameter of drain pipe		In. [mm]	O.D. 1 [26]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PCFY Specifications

Specifications			System			
Unit Type			PCFY-P15NKMU-ER2.TH	PCFY-P24NKMU-ER2.TH	PCFY-P30NKMU-ER2.TH	PCFY-P36NKMU-ER2.TH
Cooling capacity (Nominal)[1]		BTU/H	15,000	24,000	30,000	36,000
Heating capacity (Nominal)[1]		BTU/H	17,000	27,000	34,000	40,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60			
Power Consumption	Cooling	kW	0.03	0.04	0.09	0.11
	Heating	kW	0.03	0.04	0.09	0.11
Current	Cooling	A	0.35	0.41	0.83	0.97
	Heating	A	0.35	0.41	0.83	0.97
MCA		A	0.44	0.52	1.22	
Maximum Overcurrent Protection (MOCP)		A	15			
External finish			MUNSELL (6.4Y 8.9/0.4)			
External Dimensions		In. [mm]	37-13/16 x 26-3/4 x 9-1/16 [960 x 680 x 230]	50-3/8 x 26-3/4 x 9-1/16 [1,280 x 680 x 230]	63 x 26-3/4 x 9-1/16 [1,600 x 680 x 230]	
Net weight		Lbs [kg]	53 [24]	71 [32]	79 [36]	84 [38]
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x quantity		Sirocco fan x 4			
	Airflow rate	CFM	353–388–424–459	494–530–565–636	703–777–883–989	742–847–953–1,095
	Motor type		DC motor			
	Motor Output	kW	.09	.095	.16	
	Motor FLA	A	0.35	0.41	0.83	0.97
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
Air filter			PP honeycomb (long life)			
Refrigerant	Type		R410A			
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/2 [6.35] Flare	3/8 [9.52] Flare		
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare	5/8 [15.88] Flare		
Diameter of drain pipe		In. [mm]	O.D. 1 [26]			

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PKFY

Wall-mounted Indoor Unit

Wall-mounted Indoor Unit

The PKA Wall-mounted indoor unit features a sleek, compact design ideal for spaces such as daycare centers, classrooms, churches, small offices, and more. Offers selectable High Sensible vs High Latent mode for the 12,000 and 18,000 capacity units.

Capacities

R2-Series Capacities: 4,000 - 30,000 BTU/H

Y-Series Capacities: 4,000 - 30,000 BTU/H

Sound: as low as 22 dB(A)

Sleek Design

The PKA Wall-mounted indoor unit is a versatile unit with a design that makes it a good fit for a variety of applications. A flat panel design and pure white color pairs with any interior.

Improved Energy Efficiency

Energy-saving efficiency has been improved, reducing electricity consumption and contributing to a further reduction in operating cost. When contrasted with the previous model's performance, SEER and HSPF efficiencies improved, realizing industry-leading energy-saving features.

PKFY-P Specifications

Specifications			System					
Unit Type			PKFY-P04NLMU-ER1.TH	PKFY-P06NLMU-ER1.TH	PKFY-P08NLMU-ER1.TH	PKFY-P12NLMU-ER1.TH	PKFY-P15NLMU-ER1.TH	PKFY-P18NLMU-ER1.TH
Cooling capacity (Nominal)[1]		BTU/H	4,000	6,000	8,000	12,000	15,000	18,000
Heating capacity (Nominal)[1]		BTU/H	4,500	6,700	9,000	13,500	17,000	20,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60					
Power Consumption	Cooling	kW	0.02		0.03	0.04		0.05
	Heating	kW	0.01		0.02	0.03		0.04
Current	Cooling	A	0.2		0.3	0.4		0.5
	Heating	A	0.2			0.3		0.4
MCA		A	0.24					
Maximum Overcurrent Protection (MOCP)		A	15					
Recommended Fuse Size		A	15					
External finish			Plastic, MUNSELL (0.7PB 9.2/0.4)					
External Dimensions		In. [mm]	30-7/16 x 9-11/32 x 11-25/32 [733 x 237 x 299]				35-3/8 x 9-11/32 x 11-25/32 [898 x 237 x 299]	
Net weight		Lbs [kg]	23.6 [10.7]	24.5 [11.1]			28.4 [12.9]	
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x quantity		Line flow fan x 1					
	Airflow rate	CFM	117–124–134–148	141–155–173–191	141–162–191–237	152–191–244–297	222–261–304–353	240–293–360–438
	Motor type		DC Motor					
	Motor Output	kW	.03					
	Motor FLA	A	0.19					
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	29–34–37–40	31–36–41–46
Air filter			PP honeycomb					
Refrigerant	Type		R410A					
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Flare					
	Gas (Low Pressure)	In. [mm]	1/2 [12.70] Flare					
Diameter of drain pipe		In. [mm]	I.D. 5/8 [16]					

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.

- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PKFY-P Specifications

Specifications			System	
Unit Type			PKFY-P24NKMU-E2R1.TH	PKFY-P30NKMU-E2R1.TH
Cooling capacity (Nominal)[1]		BTU/H	24,000	30,000
Heating capacity (Nominal)[1]		BTU/H	27,000	34,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60	
Power Consumption	Cooling	kW	0.07	
	Heating	kW	0.07	
Current	Cooling	A	0.5	
	Heating	A	0.5	
MCA		A	0.63	
Maximum Overcurrent Protection (MOCP)		A	15	
External finish			Plastic, MUNSELL (1.0Y 9.2/0.2)	
External Dimensions		In. [mm]	46-1/16 x 11-5/8 x 14-3/8 [1,170 x 295 x 365]	
Net weight		Lbs [kg]	46 [21]	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	
Fan	Type x quantity		Line flow fan x 1	
	Airflow rate	CFM	570–710	710–850
	Motor type		DC motor	
	Motor Output	kW	.056	
Sound pressure level (Measured in anechoic room)		dB(A)	39–45	43–49
Air filter			PP honeycomb	
Refrigerant	Type		R410A	
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	3/8 [9.52] Flare	
	Gas (Low Pressure)	In. [mm]	5/8 [15.88] Flare	
Diameter of drain pipe		In. [mm]	I.D. 5/8 [16]	

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.


THE NEW YORK TRILOGY
BOOMTOWN
SARAJEVO
BIGGER THAN JESUS
CHUTE

PFFY-NEMU

Floor-mounted Indoor Unit

Exposed Unit

The PFFY-NEMU Floor-mounted Indoor Unit features a narrow body and an attractive cabinet. These units are easy to install in peripheral spaces, yet offer highly efficient cooling and heating performance. Their low operating sound and compact size make them ideal for hotel rooms, schools, and office buildings.

Capacities

R2-Series Capacities: 6,000 - 24,000 BTU/H

Y-Series Capacities: 6,000 - 24,000 BTU/H

S-Series Capacities: 6,000 - 24,000 BTU/H

Sound: as low as 36 dB(A)

Perimeter Air Conditioning

This Floor-mounted type allows efficient air conditioning around the perimeter of a room. It adopts a low-height design that does not block the daylight from the windows.

Compact Design

The compact body is only 8-11/16 in. (220 mm) deep for easy installation and effective air conditioning around the perimeter of a room.

Electronic Dry Function Dehumidifies Refreshingly

Rooms are kept optimally dehumidified according to the indoor temperature to prevent over-cooling.

PFFY-P Specifications

Specifications			System					
Unit Type			PFFY-P06NEMU-E	PFFY-P08NEMU-E	PFFY-P12NEMU-E	PFFY-P15NEMU-E	PFFY-P18NEMU-E	PFFY-P24NEMU-E
Cooling capacity (Nominal)[1]		BTU/H	6,000	8,000	12,000	15,000	18,000	24,000
Heating capacity (Nominal)[1]		BTU/H	6,700	9,000	13,500	17,000	20,000	27,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60					
Power Consumption	Cooling	kW	0.051/0.061		0.055/0.067	0.065/0.078	0.078/0.093	0.096/0.114
	Heating	kW	0.051/0.061		0.055/0.067	0.065/0.078	0.078/0.093	0.096/1.114
Current	Cooling	A	0.25/0.27		0.27/0.30	0.32/0.35	0.38/0.42	0.47/0.51
	Heating	A	0.25/0.27		0.27/0.30	0.32/0.35	0.38/0.42	0.47/0.51
MCA		A	0.32/0.34		0.34/0.38	0.4/0.44	0.48/0.53	0.59/0.64
External finish			Acrylic painted, MUNSELL(5Y 8/1)					
External Dimensions		In. [mm]	41-11/32 x 8-11/16 x 24-13/16 [1,050 x 220 x 630]		46-3/32 x 8-11/16 x 24-13/16 [1,170 x 220 x 630]		55-17/32 x 8-11/16 x 24-13/16 [1,410 x 220 x 630]	
Net weight		Lbs [kg]	67 [30]		71 [32]	73 [63]	84 [38]	89 [40]
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x quantity		Sirocco fan x 1					
	Airflow rate	CFM	194–229		247–317	300–388	353–459	353–494
	Motor type		1-phase induction motor					
	Motor Output	kW	.015		.018	.03	.035	.063
Sound pressure level (Measured in anechoic room)		dB(A)	36–41		37–41	38–43		40–46
Air filter			Standard filter					
Refrigerant	Type		R410A					
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Flare					3/8 [9.52] Flare
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare					5/8 [15.88] Flare
Diameter of drain pipe		In. [mm]	I.D. 1 [26]					

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PFFY-NRMU

Floor-mounted Indoor Unit

Concealed Unit

The PFFY-NRMU Floor-mounted Indoor Unit features a narrow body at less than nine inches deep for concealed applications. These units are easy to install in peripheral spaces, yet offer highly efficient cooling and heating performance. Their low operating sound and compact size make them ideal for hotel rooms, schools, and office buildings.

Capacities

R2-Series Capacities: 6,000 - 24,000 BTU/H

Y-Series Capacities: 6,000 - 24,000 BTU/H

S-Series Capacities: 6,000 - 24,000 BTU/H

Sound: as low as 36 dB(A)

Concealed Design Ensures Harmony with Interior

The embedded type design makes it possible to install the unit while keeping its beautiful appearance and architectural design. It adopts a low-height design that does not block the daylight from the windows.

Compact Design

The compact body is only 8-11/16 in. (220 mm) deep for easy installation and effective air conditioning around the perimeter of a room. Designed for applications requiring a built-in, concealed, Floor-mounted units.

Electronic Dry Function Dehumidifies Refreshingly

Rooms are kept optimally dehumidified according to the indoor temperature to prevent over-cooling.

PFFY-NRMU Specifications

Specifications			System					
Unit Type			PFFY-P06NRMU-E	PFFY-P08NRMU-E	PFFY-P12NRMU-E	PFFY-P15NRMU-E	PFFY-P18NRMU-E	PFFY-P24NRMU-E
Cooling capacity (Nominal)[1]		BTU/H	6,000	8,000	12,000	15,000	18,000	24,000
Heating capacity (Nominal)[1]		BTU/H	6,700	9,000	13,500	17,000	20,000	27,000
Power Source	Voltage, Phase, Hertz		208/230, 1, 60					
Power Consumption	Cooling	kW	0.051/0.061		0.055/0.067	0.065/0.078	0.078/0.093	0.096/0.114
	Heating	kW	0.051/0.061		0.055/0.067	0.065/0.078	0.078/0.093	0.096/0.114
Current	Cooling	A	0.25/0.27		0.27/0.30	0.32/0.35	0.38/0.42	0.47/0.51
	Heating	A	0.25/0.27		0.27/0.30	0.32/0.35	0.38/0.42	0.47/0.51
MCA		A	0.32/0.34		0.34/0.38	0.4/0.44	0.48/0.53	0.59/0.64
External finish			Galvanized sheet metal					
External Dimensions		In. [mm]	34-29/32 x 8-11/16 x 25-3/16 [886 x 220 x 639]		39-5/8 x 8-11/16 x 25-3/16 [1,006 x 220 x 639]		49-1/16 x 8-11/16 x 25-3/16 [1,246 x 220 x 639]	
Net weight		Lbs [kg]	51 [23]		58 [26]	60 [27]	69 [31]	71 [32]
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x quantity		Sirocco fan x 1					
	Airflow rate	CFM	194–229		247–317	300–388	353–459	353–494
	Motor type		1-phase induction motor					
	Motor Output	kW	.015		.018	.03	.035	.063
Sound pressure level (Measured in anechoic room)		dB(A)	36–41		37–41	38–43		40–46
Air filter			Standard filter					
Refrigerant	Type		R410A					
Diameter of refrigerant pipe (O.D.)	Liquid (High Pressure)	In. [mm]	1/4 [6.35] Flare					3/8 [9.52] Flare
	Gas (Low Pressure)	In. [mm]	1/2 [12.7] Flare					5/8 [15.88] Flare
Diameter of drain pipe		In. [mm]	I.D. 1 [26]					

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

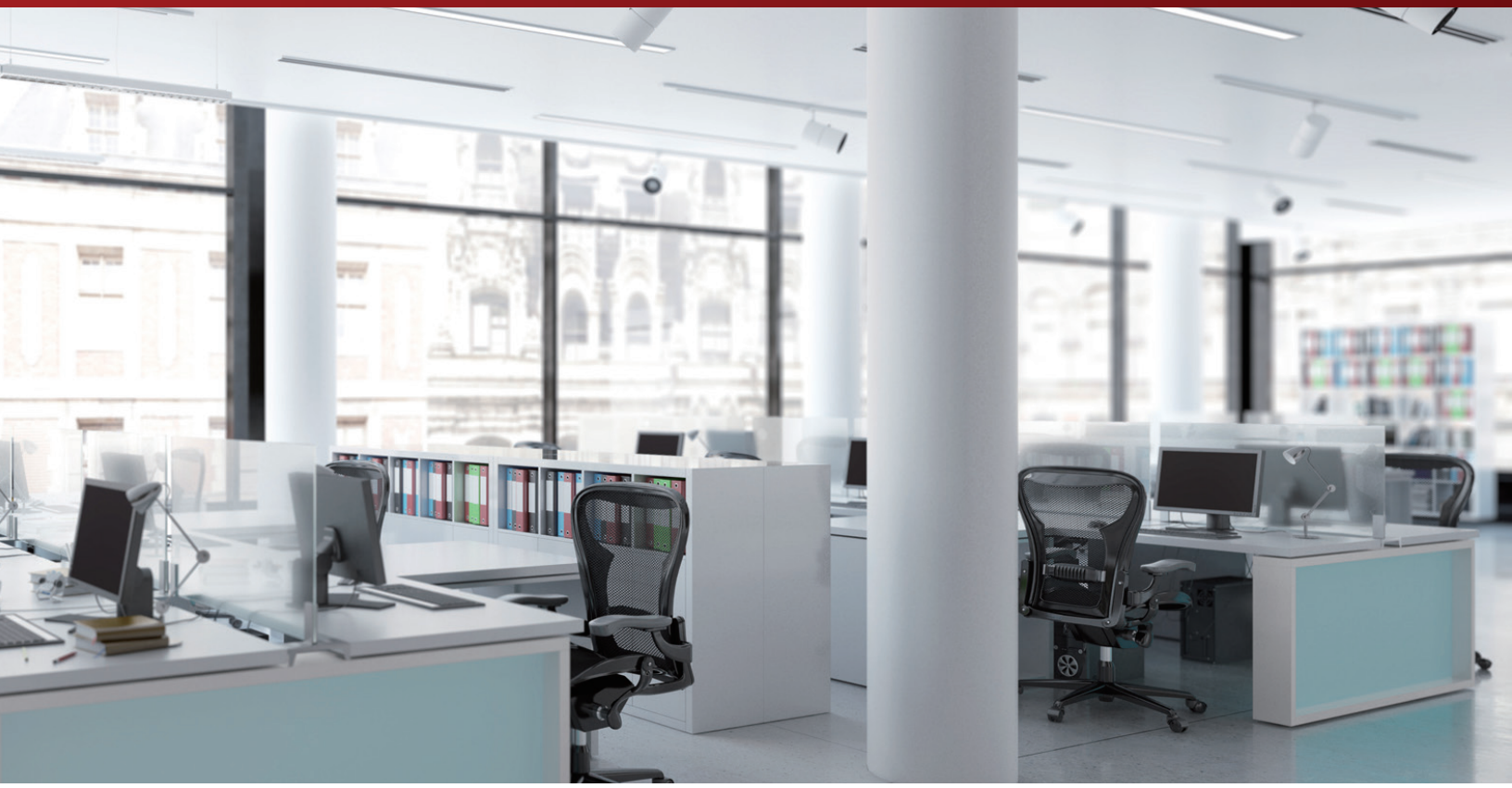
NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

PEFY-AF

Dedicated Outdoor Air System



Outdoor Air System

The PEFY-AF features a high capacity coil that will condition incoming air, making it suitable for distribution to downstream fan coil units.

Humidity and Outlet Temperature Control

Double heat exchangers create and supply optimized air into the room. The first HEX dehumidifies and cools the air, which is then reheated by the second HEX.

Intake of Outside Air

This model provides an airflow volume of 1,200 cfm and is capable of taking in outside air. Outdoor units, BC controllers, and indoor units are all connectible to the M-NET and can be collectively controlled with other Mitsubishi Electric air-conditioning systems.

Refer to the specifications for information on connectible outdoor units.

PEFY-AF Specifications

Specifications			System
Unit Type			PEFY-AF1200CFMR-E
Cooling capacity (Nominal)[1]		BTU/H	112,000
Heating capacity (Nominal)[1]		BTU/H	61,400
Reheat (Nominal)		BTU/H	24,200
Power source			208/230, 1, 60
Power Consumption	Cooling (208/230V)	kW	0.66
	Heating (208/230V)	kW	0.66
Current	Cooling (208/230V)	A	0.8
	Heating (208/230V)	A	0.78
MCA		A	4.0/0.3
Maximum Overcurrent Protection (MOCP)		A	15
Operating Temperature Range	Cooling[2]	°F [°C]	[43.0~35.0]
	Heating[3]	°F [°C]	-4 ~60 [-20.0 ~15.5]
Connectable Outdoor Units			PURY-P120T(Y)NU-A(-BS), PURY-EP120T(Y)NU-A(-BS) or PURY-EP120T(Y)NU-A1
Fan	Air Volume	CFM [m³/h]	- - - [- - -
	Type x quantity		Sirocco Fan x 2
	External Static pressure	in.WG	0.28–0.48–0.8
	Motor type		Single-phase Induction Motor
Air filter			Field Supplied
Exchange Efficiency	Temperature	%	---
	Enthalpy Cooling	%	-- -
	Enthalpy Heating	%	---
External finish			Galvanized
External Dimensions		In. [mm]	49-1/4 x 55-1/8 x 18-9/16 [470 x 1,250 x 1,400]
Net weight		Lbs [kg]	309 [140]
Blower Type			Sirocco Fan
Refrigerant Piping Dimensions	Liquid (R410A)	In. [mm]	7/8 [22.2]
Drainpipe Dimension (Two)		(H x W x L) In.	1-1/4 [32]
Entering Air Temperature Operation Range		°F [°C]	to [to]

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.
- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

Specifications

CITY MULTI® Outdoor Unit Range

Hyper-heating INVERTER® Units

Air-Cooled Systems

Y-Series

- Cooling and Heating
- Heat Pump
- 6-20 Ton | 208–230 V/460 V

R2-Series

- Simultaneous Cooling and Heating
- Heat Recovery
- 6-20 Ton | 208–230 V/460 V

High Efficiency Units

Air-Cooled Systems

Y-Series

- Cooling and Heating
- Heat Pump
- 6-36 Ton | 208–230 V/460 V

R2-Series

- Simultaneous Cooling and Heating
- Heat Recovery
- 6-36 Ton | 208–230 V/460 V

Compact Units

Air-Cooled Systems

SMART MULTI™

- H2i Hyper-Heating
- Cooling or Heating
- Heat Pump
- 3/4 Ton | 208-230 V

SMART MULTI™

- Standard
- Cooling or Heating
- Heat Pump
- 3-5 Ton | 208-230 V

Compact Units

Water-Cooled Systems

WY-Series

- Cooling and Heating
- Heat Pump
- 6-30 Ton | 208–230 V/ 460 V/575 V

WR2-Series

- Simultaneous Cooling and Heating
- Heat Recovery
- 6-28 Ton | 208–230 V/460 V/575 V

PURY-EP Specifications

Specifications				System				
VOLTAGES			208/230V 460V	PURY-EP72TNU-A1 PURY-EP72YNU-A1	PURY-EP96TNU-A1 PURY-EP96YNU-A1	PURY-EP120TNU-A1 PURY-EP120YNU-A1	PURY-EP144TNU-A1 PURY-EP144YNU-A1	PURY-EP168TNU-A1 PURY-EP168YNU-A1
Cooling Capacity (Nominal)		BTU/H		72,000	96,000	120,000	144,000	168,000
Heating Capacity (Nominal)		BTU/H		80,000	108,000	135,000	160,000	188,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]				
	Heating	°F [°C]		-13~60 [-25.0~15.5]				
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]				
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 36-1/4 x 29-3/16 [1,818 x 920 x 740]	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]			71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]
Net Weight		Lbs. [kg]	208/230V 460V	519 [235] 552 [250]	613 [278] 649 [294]	622 [282] 657 [298]	680 [308] 715 [324]	777 [352] 807 [366]
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type)				
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%				
Minimum Circuit Ampacity		A	208/230V 460V	33.0/30.0 14.0	44.0/40.0 20.0	56.0/55.0 26.0	60.0/60.0 34.0	70.0/70.0 35.0
Maximum Overcurrent Protection		A	208/230V 460V	50/50 20	70/60 30	90/90 40	100/100 50	110/110 50
Recommended Fuse Size		A	208/230V 460V	35/30 15	45/45 20	60/60 30	60/60 35	70/70 40
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	8/10 [8.4/5.3] 14 [2.1]	6/6 [13.3/13.3] 12 [3.3]	4/4 [21.2/21.2] 10 [5.3]	4/4 [21.2/21.2] 8 [8.4]	
SCCR		kA		5				
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed	3/4 [19.05] Brazed		7/8 [22.2] Brazed	
	Gas (Low Pressure)	In. [mm]		3/4 [19.05] Brazed	7/8 [22.2] Brazed	1-1/8 [28.58] Brazed		
Max. Total Refrigerant Line Length		Ft.		1,804		1,968		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541				
Max. Control Wiring Length		Ft.		1,640				
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity				
	Model/Quantity			P04~P96/1.0~18.0	P04~P96/1.0~24.0	P04~P96/1.0~30.0	P04~P96/1.0~36.0	P04~P96/1.0~42.0
Sound Pressure Levels		dB(A)		75.5/77.0	58.5/60.0	60.0/62.0	65.0/65.5	62.5/66.5
Sound Power Levels		dB(A)		75.5/77.0	77.5/79.0	80.0/80.5	85.5/85.5	81.0/85.5
FAN[4]	Type x Quantity			Propeller fan x 1	Propeller fan x 2			
	Fan Motor Output	kW		0.92	0.46+0.46			0.92+0.92
		CFM		6,000	7,400	8,300	9,550	14,850
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG				
Compressor Operating Range				15.0% to 100.0%				
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1				
Refrigerant	Type x Original Charge			R410A x 11.0 lbs + 7.0 oz [5.2 kg]	R410A x 17.0 lbs + 10.0 oz [8.0 kg]		R410A x 23.0 lbs + 12.0 oz [10.8 kg]	
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				
	Inverter Circuit (Comp./Fan)			Over-current protection				
AHRI Ratings (Ducted/ Non-ducted)	EER			11.8/12.2	11.7/12.0	10.4/10.6	10.0/10.1	
	IEER			22.2/23.5	22.5/24.2	21.7/23.0	21.2/22.7	20.2/22.6
	COP			3.81/4.37	3.94/4.26	3.71/4.04	3.49/3.86	3.3/3.8
	SCHE			25.9/25.5	23.5/28.3	25.3/29.1	24.8/27.7	24.7/28.3

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.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PURY-EP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PURY-EP192TNU-A1 PURY-EP192YNU-A1	PURY-EP216TNU-A1 PURY-EP216YNU-A1	PURY-EP240TNU-A1 PURY-EP240YNU-A1
Cooling Capacity (Nominal)		BTU/H		192,000	216,000	224,000
Heating Capacity (Nominal)		BTU/H		215,000	243,000	250,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]		
	Heating	°F [°C]		-13~60 [-25.0~15.5]		
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]		
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]		
Net Weight		Lbs. [kg]	208/230V 460V	887 [402] 918 [416]		
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type)		
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%		
Minimum Circuit Ampacity		A	208/230V 460V	80.0/75.0 38.0	88.0/85.0 41.0	88.0/88.0 41.0
Maximum Overcurrent Protection		A	208/230V 460V	125/125 60	150/150 70	
Recommended Fuse Size		A	208/230V 460V	80/80 40	90/90 50	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	2/2 [33.6/33.6] 8 [8.4]	2/2 [33.6/33.6] 6 [13.3]	
SCCR		kA		5		
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed	7/8 [22.2] Brazed (Pipe Size Dependent on Piping Length)	
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed	1-3/8 [34.93] Brazed	
Max. Total Refrigerant Line Length		Ft.		2,460		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/1.0~48.0	P04~P96/2.0~50.0	
Sound Pressure Levels		dB(A)		64.5/66.0	66.5/67.5	67.5/68.0
Sound Power Levels		dB(A)		83.5/85.0	85.5/86.5	86.5/87.0
FAN[4]	Type x Quantity			Propeller fan x 2		
	Fan Motor Output	kW		0.92+0.92		
		CFM		13,050	14,100	14,500
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG		
Compressor Operating Range				15.0% to 100.0%		
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1		
Refrigerant	Type x Original Charge			R410A x 26.0 lbs + 1.0 oz [11.8 kg]		
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter Circuit (Comp./Fan)			Over-current protection		
AHRI Ratings (Ducted/ Non-ducted)	EER			10.2/10.2	9.7/9.8	9.7/9.7
	IEER			19.8/22.2	19.4/21.6	18.8/20.8
	COP			3.34/3.76	3.23/3.62	3.2/3.42
	SCHE			24.7/28.3	23.8/27.8	23.6/26.3

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.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PURY-EP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PURY-EP192TSNU-A1 PURY-EP192YSNU-A1	PURY-EP216TSNU-A1 PURY-EP216YSNU-A1	PURY-EP240TSNU-A1 PURY-EP240YSNU-A1
Cooling Capacity (Nominal)		BTU/H		192,000	216,000	240,000
Heating Capacity (Nominal)		BTU/H		215,000	243,000	270,000
Net Weight		Lbs. [kg]	208/230V 460V	1,226 [556] 1,298 [588]	1,235 [560] 1,306 [592]	1,244 [564] 1,314 [596]
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed	7/8 [22.2] Brazed (Pipe Size Dependent on Piping Length)	
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		1-3/8 [34.93] Brazed
Max. Total Refrigerant Line Length		Ft.		2,460		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/1.0~48.0	P04~P96/2.0~50.0	
Sound Pressure Levels		dB(A)		61.5/63.0	62.5/64.5	63.0/65.0
Sound Power Levels		dB(A)		80.5/82.0	82.0/83.0	83.0/83.5
Compressor Operating Range				7.5% to 100.0%		
AHRI Ratings (Ducted/ Non-ducted)	EER			11.0/11.3	10.3/10.6	9.7/10.0
	IEER			20.5/22.4	20.0/21.8	19.0/21.0
	COP			3.66/3.99	3.56/3.89	3.46/3.58
	SCHE			23.0/28.0	22.7/26.9	22.9/26.8

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PURY-EP96TNU-A1 PURY-EP96YNU-A1		PURY-EP120TNU-A1 PURY-EP120YNU-A1	PURY-EP96TNU-A1 PURY-EP96YNU-A1	PURY-EP120TNU-A1 PURY-EP120YNU-A1	
Cooling Capacity (Nominal)		BTU/H		96,000		120,000	96,000	120,000	
Heating Capacity (Nominal)		BTU/H		108,000		135,000	108,000	135,000	
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]					
Net Weight		Lbs. [kg]	208/230V 460V	613 [278] 649 [294]		622 [282] 657 [298]	613 [278] 649 [294]	622 [282] 657 [298]	
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 5Y 8/1]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	44.0/40.0 20.0		56.0/55.0 26.0	44.0/40.0 20.0	56.0/55.0 26.0	
Maximum Overcurrent Protection		A	208/230V 460V	70/60 30		90/90 40	70/60 30	90/90 40	
Recommended Fuse Size		A	208/230V 460V	45/45 20		60/60 30	45/45 20	60/60 30	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	6/6 [13.3/13.3] 12 [3.3]		4/4 [21.2/21.2] 10 [5.3]	6/6 [13.3/13.3] 12 [3.3]	4/4 [21.2/21.2] 10 [5.3]	
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		7,400		8,300	7,400	8,300	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 17.0 lbs + 10.0 oz [8.0 kg]					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PURY-EP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PURY-EP264TSNU-A1 PURY-EP264YSNU-A1	PURY-EP288TSNU-A1 PURY-EP288YSNU-A1	PURY-EP312TSNU-A1 PURY-EP312YSNU-A1
Cooling Capacity (Nominal)		BTU/H		264,000	288,000	312,000
Heating Capacity (Nominal)		BTU/H		295,000	323,000	350,000
Net Weight		Lbs. [kg]	208/230V 460V	1,302 [590] 1,372 [622]	1,360 [616] 1,430 [648]	1,457 [660] 1,522 [690]
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		1-1/8 [28.58] Brazed		
	Gas (Low Pressure)	In. [mm]		1-3/8 [34.93] Brazed		1-5/8 [41.28] Brazed
Max. Total Refrigerant Line Length		Ft.		3,116		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/2.0~50.0		
Sound Pressure Levels		dB(A)		66.5/67.5	68.0/68.5	67.0/69.0
Sound Power Levels		dB(A)		87.0/87.0	88.5/88.5	87.0/88.5
Compressor Operating Range				7.5% to 100.0%		
AHRI Ratings (Ducted/ Non-ducted)	EER			9.5/9.7	9.3/9.4	
	IEER			19.4/21.1	19.4/20.8	19.3/20.3
	COP			3.36/3.53	3.26/3.46	3.24/3.37
	SCHE			22.3/25.7	21.7/24.5	20.6/23.8

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PURY-EP144TNU-A1 PURY-EP144YNU-A1	PURY-EP120TNU-A1 PURY-EP120YNU-A1	PURY-EP144TNU-A1 PURY-EP144YNU-A1		PURY-EP168TNU-A1 PURY-EP168YNU-A1	PURY-EP144TNU-A1 PURY-EP144YNU-A1
Cooling Capacity (Nominal)		BTU/H		144,000	120,000	144,000		168,000	144,000
Heating Capacity (Nominal)		BTU/H		160,000	135,000	160,000		188,000	160,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]				71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]
Net Weight		Lbs. [kg]	208/230V 460V	680 [308] 715 [324]	622 [282] 657 [298]	680 [308] 715 [324]		777 [352] 807 [366]	680 [308] 715 [324]
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 5Y 8/1]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	60.0/60.0 34.0	56.0/55.0 26.0	60.0/60.0 34.0		70.0/70.0 35.0	60.0/60.0 34.0
Maximum Overcurrent Protection		A	208/230V 460V	100/100 50	90/90 40	100/100 50		110/110 50	100/100 50
Recommended Fuse Size		A	208/230V 460V	60/60 35	60/60 30	60/60 35		70/70 40	60/60 35
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/4 [21.2/21.2] 8 [8.4]	4/4 [21.2/21.2] 10 [5.3]	4/4 [21.2/21.2] 8 [8.4]			
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		9,550	8,300	9,550		14,850	9,550
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 23.0 lbs + 12.0 oz [10.8 kg]	R410A x 17.0 lbs + 10.0 oz [8.0 kg]	R410A x 23.0 lbs + 12.0 oz [10.8 kg]			
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PURY-EP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PURY-EP336TSNU-A1 PURY-EP336YSNU-A1	PURY-EP384TSNU-A1 PURY-EP384YSNU-A1	PURY-EP432TSNU-A1 PURY-EP432YSNU-A1
Cooling Capacity (Nominal)		BTU/H		336,000	384,000	432,000
Heating Capacity (Nominal)		BTU/H		378,000	430,000	480,000
Net Weight		Lbs. [kg]	208/230V 460V	1,554 [704] 1,614 [732]	1,774 [804] 1,836 [832]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		1-1/8 [28.58] Brazed		
	Gas (Low Pressure)	In. [mm]		1-5/8 [41.28] Brazed		
Max. Total Refrigerant Line Length		Ft.		3,116	3,280	4,920
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/2.0~50.0		
Sound Pressure Levels		dB(A)		65.5/69.5	67.5/69.0	69.5/70.0
Sound Power Levels		dB(A)		84.0/88.5	86.5/89.0	88.5/89.0
Compressor Operating Range				7.5% to 100.0%		
AHRI Ratings (Ducted/ Non-ducted)	EER			9.2/9.3	9.1/9.1	8.9/8.9
	IEER			18.7/19.2	17.7/18.4	17.1/17.6
	COP			3.22/3.29	3.2/3.22	3.2/3.2
	SCHE			20.4/23.4		19.6/22.4

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PURY-EP168TNU-A1 PURY-EP168YNU-A1		PURY-EP192TNU-A1 PURY-EP192YNU-A1		PURY-EP216TNU-A1 PURY-EP216YNU-A1	
Cooling Capacity (Nominal)		BTU/H		168,000		192,000		216,000	
Heating Capacity (Nominal)		BTU/H		188,000		215,000		243,000	
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]					
Net Weight		Lbs. [kg]	208/230V 460V	777 [352] 807 [366]		887 [402] 918 [416]			
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 5Y 8/1]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	70.0/70.0 35.0		80.0/75.0 38.0		88.0/85.0 41.0	
Maximum Overcurrent Protection		A	208/230V 460V	110/110 50		125/125 60		150/150 70	
Recommended Fuse Size		A	208/230V 460V	70/70 40		80/80 40		90/90 50	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/4 [21.2/21.2] 8 [8.4]		2/2 [33.6/33.6] 8 [8.4]		2/2 [33.6/33.6] 6 [13.3]	
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		14,850		13,050		14,100	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 23.0 lbs + 12.0 oz [10.8 kg]		R410A x 26.0 lbs + 1.0 oz [11.8 kg]			
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PURY-HP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PURY-HP72TNU-A1 PURY-HP72YNU-A1	PURY-HP96TNU-A1 PURY-HP96YNU-A1	PURY-HP120TNU-A1 PURY-HP120YNU-A1
Cooling Capacity (Nominal)		BTU/H		72,000	96,000	120,000
Heating Capacity (Nominal)		BTU/H		80,000	108,000	135,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]		
	Heating	°F [°C]		-22~60 [-30.0~15.5]		
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]		
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 49-1/4 x 29-3/8 [1,818 x 1,250 x 745]		
Net Weight		Lbs. [kg]	208/230V 460V	609 [276] 644 [292]	662 [300] 697 [316]	
External Finish				Pre-coated galvanized steel sheet		
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%		
Minimum Circuit Ampacity		A	208/230V 460V	54.0/49.0 25.0	66.0/60.0 30.0	66.0/60.0 35.0
Maximum Overcurrent Protection		A	208/230V 460V	90/80 40	110/100 50	
Recommended Fuse Size		A	208/230V 460V	60/50 25	70/60 30	70/60 35
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/6 [21.2/13.3] 10 [5.3]	4/4 [21.2/21.2] 10 [5.3]	4/4 [21.2/21.2] 8 [8.4]
SCCR		kA		5		
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed	3/4 [19.05] Brazed	
	Gas (Low Pressure)	In. [mm]		3/4 [19.05] Brazed	7/8 [22.2] Brazed	1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length		Ft.		1,804		1,968
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/1.0~18.0	P04~P96/1.0~24.0	P04~P96/1.0~30.0
Sound Pressure Levels		dB(A)		56.5/58.0	58.5/60.0	64.0/65.0
Sound Power Levels		dB(A)		75.5/77.0	77.5/79.0	84.0/85.0
FAN[4]	Type x Quantity			Propeller fan x 2		
	Fan Motor Output	kW		0.46+0.46		
		CFM		6,700	7,400	7,750
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG		
Compressor Operating Range				15.0% to 100.0%		
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1		
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]	R410A x 23.0 lbs + 12.0 oz [10.8 kg]	
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter Circuit (Comp./Fan)			Over-heat protection, Over-current protection		
AHRI Ratings (Ducted/ Non-ducted)	EER			11.6/12.1	11.6/12.0	10.4/10.7
	IEER			21.7/22.8	20.3/23.2	19.9/22.0
	COP			3.76/4.09	3.88/4.14	3.61/4.01
	SCHE			25.9/25.5	23.5/28.3	25.3/29.1

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.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PURY-HP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PURY-HP144TSNU-A1 PURY-HP144YSNU-A1	PURY-HP192TSNU-A1 PURY-HP192YSNU-A1	PURY-HP240TSNU-A1 PURY-HP240YSNU-A1
Cooling Capacity (Nominal)		BTU/H		144,000	192,000	240,000
Heating Capacity (Nominal)		BTU/H		160,000	215,000	270,000
Net Weight		Lbs. [kg]	208/230V 460V	1,218 [552] 1,288 [584]	1,324 [600] 1,394 [632]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed		7/8 [22.2] Brazed (Pipe Size Dependent on Piping Length)
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		1-3/8 [34.93] Brazed
Max. Total Refrigerant Line Length		Ft.		1,968	2,460	2,624
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/1.0~36.0	P04~P96/1.0~48.0	P04~P96/2.0~50.0
Sound Pressure Levels		dB(A)		59.5/61.0	61.5/63.0	67.0/68.0
Sound Power Levels		dB(A)		78.5/80.0	80.5/82.0	87.0/88.0
Compressor Operating Range				7.5% to 100.0%		
AHRI Ratings (Ducted/ Non-ducted)	EER			10.8/11.5	10.8/11.2	9.7/10.0
	IEER			19.7/21.6	19.4/21.4	18.9/20.3
	COP			3.45/3.82	3.6/3.88	3.36/3.56
	SCHE			24.8/27.7	23.0/28.0	22.9/26.8

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PURY-HP72TNU-A1 PURY-HP72YNU-A1		PURY-HP96TNU-A1 PURY-HP96YNU-A1		PURY-HP120TNU-A1 PURY-HP120YNU-A1	
Cooling Capacity (Nominal)		BTU/H		72,000		96,000		120,000	
Heating Capacity (Nominal)		BTU/H		80,000		108,000		135,000	
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-22~60 [-30.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 49-1/4 x 29-3/8 [1,818 x 1,250 x 745]					
Net Weight		Lbs. [kg]	208/230V 460V	609 [276] 644 [292]		662 [300] 697 [316]			
External Finish				Pre-coated galvanized steel sheet [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	54.0/49.0 25.0		66.0/60.0 30.0		66.0/60.0 35.0	
Maximum Overcurrent Protection		A	208/230V 460V	90/80 40		110/100 50			
Recommended Fuse Size		A	208/230V 460V	60/50 25		70/60 30		70/60 35	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/6 [21.2/13.3] 10 [5.3]		4/4 [21.2/21.2] 10 [5.3]		4/4 [21.2/21.2] 8 [8.4]	
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		6,700		7,400		7,750	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]		R410A x 23.0 lbs + 12.0 oz [10.8 kg]			
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-heat protection, Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PQRY-P Specifications

Specifications				System	
VOLTAGES			208/230V 460V	PQRY-P216TLMU-A1 PQRY-P216YLMU-A1	PQRY-P240TLMU-A1 PQRY-P240YLMU-A1
Cooling Capacity (Nominal)		BTU/H		216,000	240,000
Heating Capacity (Nominal)		BTU/H		243,000	270,000
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~24.0]	
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]	
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]	
External Dimensions (H x W x D)		In. [mm]		57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]	
Net Weight		Lbs. [kg]	208/230V 460V	558 [253] 574 [260]	
External Finish				Galvanized steel sheets	
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10% 460, 3, 60, ±10%	
Minimum Circuit Ampacity		A	208/230V 460V	69.0/63.0 31.0	79.0/71.0 36.0
Maximum Overcurrent Protection		A	208/230V 460V	110/110 50	125/125 60
SCCR		kA		5	
Flow Rate		G/min (gpm)		50.7	
		L/min		192	
Pressure Drop		psi		6.53	
		Ft.		15.1	
Operation Volume Range		G/min (gpm)		26.4~63.4	
		m^3/h		6.0~14.4	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed (Pipe Size Dependent on Piping Length)	
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed	1-3/8 [34.93] Brazed
Max. Total Refrigerant Line Length		Ft.		2,460	
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541	
Max. Control Wiring Length		Ft.		1,640	
Indoor Unit Connectable	Total Capacity			50.0~150.0% of heatsource unit capacity	
	Model/Quantity			P06~P96/2.0~50.0	
Sound Pressure Level		dB(A)		58.0/58.0	
Compressor Operating Range				13.0% to 100.0%	12.0% to 100.0%
Compressor	Type x Quantity			Inverter scroll hermetic x 1	
Compressor Motor Output		kW		14.5	16.1
Refrigerant	Type x Original Charge			R410A x 25.0 lbs. + 13.0oz. [11.7 kg]	
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 Mpa (601 psi)	
	Inverter Circuit			Over-heat protection, Over-current protection	
	Compressor			Over-heat protection	
Lubricant				MEL32	
AHRI Ratings (Ducted/ Non-ducted)	EER			11.2/10.9	10.8/11.0
	IEER			19.0/21.2	18.8/21.2
	COP			4.75/5.23	4.52/5.05
	SCHE			19.7/19.7	

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.

PQRY-P Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PQRY-P144TSLMU-A1 PQRY-P144YSLMU-A1	PQRY-P168TSLMU-A1 PQRY-P168YSLMU-A1	PQRY-P192TSLMU-A1 PQRY-P192YSLMU-A1
Cooling Capacity (Nominal)		BTU/H		144,000	168,000	192,000
Heating Capacity (Nominal)		BTU/H		160,000	188,000	215,000
Net Weight		Lbs. [kg]	208/230V 460V	764 [346] 812 [368]		
Refrigerant Piping Diameter From Twinning Kit to First Joint or Header	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed		
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		
Max. Total Refrigerant Line Length		Ft.		2,460		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of heatsource unit capacity		
	Model/Quantity			P06~P96/1.0~36.0	P06~P96/1.0~42.0	P06~P96/1.0~48.0
Sound Pressure Level		dB(A)		49.0/49.0	50.0/50.0	51.0/51.0
Compressor Operating Range				12.0% to 100.0%	10.0% to 100.0%	9.0% to 100.0%
AHRI Ratings (Ducted/ Non-ducted)	EER			15.1/18.6	14.8/17.1	14.4/16.2
	IEER			22.5/26.1	23.6/25.8	24.4/26.4
	COP			5.29/5.94	5.57/5.67	5.77/5.53
	SCHE			21.7/20.2	21.0/22.6	19.7/21.8

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PQRY-P72TLMU-A1 PQRY-P72YLMU-A1		PQRY-P96TLMU-A1 PQRY-P96YLMU-A1	PQRY-P72TLMU-A1 PQRY-P72YLMU-A1	PQRY-P96TLMU-A1 PQRY-P96YLMU-A1	
Cooling Capacity (Nominal)		BTU/H		72,000		96,000	72,000	96,000	
Heating Capacity (Nominal)		BTU/H		80,000		108,000	80,000	108,000	
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~ 24.0]					
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]					
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]					
External Dimensions (H x W x D)		In. [mm]		43-5/16 x 34-11/16 x 21-11/16 [1,100 x 880 x 550]					
Net Weight		Lbs. [kg]	208/230V 460V	382 [173] 406 [184]					
External Finish				Galvanized steel sheets					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10 460, 3, 60, ±10					
Minimum Circuit Ampacity		A	208/230V 460V	13.0/12.0 6.0		19.0/17.0 9.0	13.0/12.0 6.0	19.0/17.0 9.0	
Maximum Overcurrent Protection		A	208/230V 460V	20/20 15		30/25 15	20/20 15	30/25 15	
SCCR		kA		5					
Flow Rate		G/min [gpm]		25.4					
		L/min		96					
Pressure Drop		psi		3.48					
		Ft.		8.0					
Operation Volume Range		G/min [gpm]		13.2~31.7					
		m3/h		3.0~7.2					
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed		3/4 [19.05] Brazed	5/8 [15.88] Brazed	3/4 [19.05] Brazed	
	Gas (Low Pressure)	In. [mm]		3/4 [19.05] Brazed		7/8 [22.2] Brazed	3/4 [19.05] Brazed	7/8 [22.2] Brazed	
Compressor	Type x Quantity			Inverter scroll hermetic x 1					
Compressor Motor Output		kW		4.3		6.0	4.3	6.0	
Refrigerant	Type x Original Charge			R410A x 11.0 lbs. + 1.0oz. [5.0 kg]					
Lubricant				MEL32					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 Mpa (601 psi)					
	Inverter Circuit			Over-heat protection, Over-current protection					
	Compressor			Over-heat protection					

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

PQRY-P Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PQRY-P216TSLMU-A1 PQRY-P216YSLMU-A1	PQRY-P240TSLMU-A1 PQRY-P240YSLMU-A1	PQRY-P288TSLMU-A1 PQRY-P288YSLMU-A1
Cooling Capacity (Nominal)		BTU/H		216,000	240,000	288,000
Heating Capacity (Nominal)		BTU/H		243,000	270,000	323,000
Net Weight		Lbs. [kg]	208/230V 460V	764 [346] 812 [368]		962 [436] 1,016 [460]
Refrigerant Piping Diameter From Twinning Kit to First Joint or Header	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed (Pipe Size Dependent on Piping Length)		1-1/8 [28.58] Brazed
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed	1-3/8 [34.93] Brazed	
Max. Total Refrigerant Line Length		Ft.		2,460		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~150.0% of heatsource unit capacity		
	Model/Quantity			P06~P96/2.0~50.0		
Sound Pressure Level		dB(A)		55.0/55.0	57.0/57.0	
Compressor Operating Range				8.0% to 100.0%	7.0% to 100.0%	9.0% to 100.0%
AHRI Ratings (Ducted/ Non-ducted)	EER			13.5/14.9	12.5/13.8	11.4/13.7
	IEER			23.5/25.9	22.4/25.7	18.5/20.6
	COP			5.64/5.4	5.46/5.32	4.9/5.25
	SCHE			19.7/20.1	19.3/20.0	20.1/19.0

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PQRY-P120TLMU-A1 PQRY-P120YLMU-A1	PQRY-P96TLMU-A1 PQRY-P96YLMU-A1	PQRY-P120TLMU-A1 PQRY-P120YLMU-A1		PQRY-P144TLMU-A1 PQRY-P144YLMU-A1	
Cooling Capacity (Nominal)		BTU/H		120,000	96,000	120,000		144,000	
Heating Capacity (Nominal)		BTU/H		135,000	108,000	135,000		160,000	
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~ 24.0]					
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]					
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]					
External Dimensions (H x W x D)		In. [mm]		43-5/16 x 34-11/16 x 21-11/16 [1,100 x 880 x 550]				57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]	
Net Weight		Lbs. [kg]	208/230V 460V	382 [173] 406 [184]				481 [218] 508 [230]	
External Finish				Galvanized steel sheets					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10 460, 3, 60, ±10					
Minimum Circuit Ampacity		A	208/230V 460V	29.0/26.0 13.0	19.0/17.0 9.0	29.0/26.0 13.0		35.0/32.0 16.0	
Maximum Overcurrent Protection		A	208/230V 460V	50/45 20	30/25 15	50/45 20		60/50 25	
SCCR		kA		5					
Flow Rate		G/min [gpm]		25.4				31.7	
		L/min		96				120	
Pressure Drop		psi		3.48				6.38	
		Ft.		8.0				14.7	
Operation Volume Range		G/min [gpm]		13.2~31.7				19.8~50.9	
		m3/h		3.0~7.2				4.5~11.6	
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]		3/4 [19.05] Brazed				7/8 [22.2] Brazed	
	Gas (Low Pressure)	In. [mm]		7/8 [22.2] Brazed				1-1/8 [28.58] Brazed	
Compressor	Type x Quantity			Inverter scroll hermetic x 1					
Compressor Motor Output		kW		7.7	6.0	7.7		9.5	
Refrigerant	Type x Original Charge			R410A x 11.0 lbs. + 1.0oz. [5.0 kg]				R410A x 13.0 lbs. + 4.0oz. [6.0 kg]	
Lubricant				MEL32					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 Mpa (601 psi)					
	Inverter Circuit			Over-heat protection, Over-current protection					
	Compressor			Over-heat protection					

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

PQRY-P Specifications

Specifications				System	
VOLTAGES			208/230V 460V	PQRY-P312TSLMU-A1 PQRY-P312YSLMU-A1	PQRY-P336TSLMU-A1 PQRY-P336YSLMU-A1
Cooling Capacity (Nominal)		BTU/H		312,000	336,000
Heating Capacity (Nominal)		BTU/H		350,000	378,000
Net Weight		Lbs. [kg]	208/230V 460V	962 [436] 1,016 [460]	
Refrigerant Piping Diameter From Twinning Kit to First Joint or Header	Liquid (High Pressure)	In. [mm]		1-1/8 [28.58] Brazed	
	Gas (Low Pressure)	In. [mm]		1-3/8 [34.93] Brazed	1-5/8 [41.28] Brazed
Max. Total Refrigerant Line Length		Ft.		2,460	
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541	
Max. Control Wiring Length		Ft.		1,640	
Indoor Unit Connectable	Total Capacity			50.0~150.0% of heatsource unit capacity	
	Model/Quantity			P06~P96/2.0~50.0	
Sound Pressure Level		dB(A)		58.0/58.0	59.0/59.0
Compressor Operating Range				9.0% to 100.0%	8.0% to 100.0%
AHRI Ratings (Ducted/ Non-ducted)	EER			11.2/13.0	11.1/12.3
	IEER			17.6/20.4	16.8/20.1
	COP			4.78/5.24	4.66/5.23
	SCHE			19.7/19.0	

Specifications				Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PQRY-P168TLMU-A1 PQRY-P168YLMU-A1	PQRY-P144TLMU-A1 PQRY-P144YLMU-A1	PQRY-P168TLMU-A1 PQRY-P168YLMU-A1	
Cooling Capacity (Nominal)		BTU/H		168,000	144,000	168,000	
Heating Capacity (Nominal)		BTU/H		188,000	160,000	188,000	
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~ 24.0]			
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]			
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]			
External Dimensions (H x W x D)		In. [mm]		57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]			
Net Weight		Lbs. [kg]	208/230V 460V	481 [218] 508 [230]			
External Finish				Galvanized steel sheets			
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10 460, 3, 60, ±10			
Minimum Circuit Ampacity		A	208/230V 460V	44.0/39.0 20.0	35.0/32.0 16.0	44.0/39.0 20.0	
Maximum Overcurrent Protection		A	208/230V 460V	70/70 35	60/50 25	70/70 35	
SCCR		kA		5			
Flow Rate		G/min [gpm]		31.7			
		L/min		120			
Pressure Drop		psi		6.38			
		Ft.		14.7			
Operation Volume Range		G/min [gpm]		19.8~50.9			
		m3/h		4.5~11.6			
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]		7/8 [22.2] Brazed			
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed			
Compressor	Type x Quantity			Inverter scroll hermetic x 1			
Compressor Motor Output		kW		11.0	9.5	11.0	
Refrigerant	Type x Original Charge			R410A x 13.0 lbs. + 4.0oz. [6.0 kg]			
Lubricant				MEL32			
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 Mpa (601 psi)			
	Inverter Circuit			Over-heat protection, Over-current protection			
	Compressor			Over-heat protection			

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

CMB-P NU-J1, CMB-P NU-JA1, CMB-P NU-KA1, CMB-P NU-KB1

Model Name			CMB-P104NU-J1	CMB-P106NU-J1	CMB-P108NU-J1	CMB-P1012NU-J1	CMB-P1016NU-J1
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000				
Number Of Branches			4	6	8	12	16
Electrical Power Requirements			208/230V, 1-phase, 60 Hz				
Minimum Circuit Ampacity (MCA)		A	0.4/0.4	0.6/0.7	0.7/0.9	1.1/1.3	1.5/1.7
Maximum Overcurrent Protection (MOCP)		A	20				
Power Input (208 / 230V)	Cooling	kW	0.30 / 0.35	0.44 / 0.52	0.59 / 0.69	0.88 / 1.03	1.17 / 1.37
Power Input (208/230V)	Heating	kW	0.30 / 0.35/	0.22 / 0.26/	0.30 / 0.35/	0.44 / 0.52/	0.59 / 0.69/
Current Input (208/230V)	Cooling	A	0.061 / 0.078/	0.091 / 0.118/	0.122 / 0.157/	0.182 / 0.235/	0.243 / 0.314/
	Heating	A	0.030 / 0.039	0.046 / 0.059	0.061 / 0.078	0.091 / 0.118	0.122 / 0.157
External Dimensions		In. [mm]	9-7/8 x 23-1/2 x 15-11/16 [250 x 596 x 398]			9-7/8 x 35-7/8 x 21-1/2 [250 x 911 x 545]	9-7/8 x 44-11/16 x 21-1/2 [250 x 1,135 x 545]
Net Weight		Lbs. [kg]	58 [26]	64 [29]		109 [49]	131 [59]
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) ()				
Connectable Outdoor / Heat Source Unit Capacity			72,000 to 120,000				
Field drain pipe size		In. [mm]	3/4 NPT				
Refrigerant			R410A				
Sound power level (measured in anechoic room)	Defrost	dB(A)	40				
Sound pressure level (measured in anechoic room)	Rated operation	dB(A)	59.0				
	Defrost	dB(A)	71				

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

CMB-P NU-JA1

Model Name			CMB-P1016NU-JA1	CMB-P1016NU-KA1	CMB-P108NU-JA1	CMB-P1012NU-JA1
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000			
Number Of Branches			16		8	12
Electrical Power Requirements			208/230V, 1-phase, 60 Hz			
Minimum Circuit Ampacity (MCA)		A	1.6/1.8		0.8/1.0	1.2/1.4
Maximum Overcurrent Protection (MOCP)		A	20			
Power Input (208 / 230V)	Cooling	kW	1.25 / 1.45		0.66 / 0.77	0.95 / 0.11
Power Input (208/230V)	Heating	kW	0.66 / 0.77/		0.37 / 0.43/	0.52 / 0.60/
Current Input (208/230V)	Cooling	A	0.258 / 0.333/		0.137 / 0.176/	0.198 / 0.255/
	Heating	A	0.137 / 0.176		0.076 / 0.098	0.106 / 0.137
External Dimensions		In. [mm]	9-7/8 x 44-11/16 x 21-1/2 [250 x 1,135 x 545]		9-7/8 x 35-7/8 x 21-1/2 [250 x 911 x 545]	9-7/8 x 44-11/16 x 21-1/2 [250 x 1,135 x 545]
Net Weight		Lbs. [kg]	150 [68]	153 [69]	106 [48]	133 [60]
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) ()			
Connectable Outdoor / Heat Source Unit Capacity			72,000 to 336,000	72,000 to 432,000	72,000 to 336,000	
Field drain pipe size		In. [mm]	3/4 NPT			
Refrigerant			R410A			
Sound power level (measured in anechoic room)	Defrost	dB(A)	50	48	50	
Sound pressure level (measured in anechoic room)	Rated operation	dB(A)	68.0	66.0	68.0	
	Defrost	dB(A)	74	73	74	

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

CMB-P NU-KB1

Model Name			CMB-P104NU-KB1	CMB-P108NU-KB1
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000	
Number Of Branches			4	8
Electrical Power Requirements			208/230V, 1-phase, 60 Hz	
Minimum Circuit Ampacity (MCA)		A	0.4/0.4	0.7/0.9
Maximum Overcurrent Protection (MOCP)		A	20	
Power Input (208 / 230V)	Cooling	kW	0.30 / 0.35	0.59 / 0.69
Power Input (208/230V)	Heating	kW	0.15 / 0.18/	0.30 / 0.35/
Current Input (208/230V)	Cooling	A	0.061 / 0.078/	0.122 / 0.157/
	Heating	A	0.030 / 0.039	0.061 / 0.078
External Dimensions		In. [mm]	9-7/8 x 23-1/2 x 15-11/16 [250 x 596 x 398]	
Net Weight		Lbs. [kg]	51 [23]	69 [31]
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) ()	
Connectable Outdoor / Heat Source Unit Capacity			126,000 to	
Field drain pipe size		In. [mm]	3/4 NPT	
Refrigerant			R410A	
Sound power level (measured in anechoic room)	Defrost	dB(A)	40	
Sound pressure level (measured in anechoic room)	Rated operation	dB(A)	59.0	
	Defrost	dB(A)	71	

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

CMB-P NU-JA1

Model Name			CMB-P104NU-J1-BV	CMB-P106NU-J1-BV	CMB-P108NU-J1-BV	CMB-P1012NU-J1-BV	CMB-P1016NU-J1-BV
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000				
Number Of Branches			4	6	8	12	16
Electrical Power Requirements			208/230V, 1-phase, 60 Hz				
Minimum Circuit Ampacity (MCA)		A	0.4/0.4	0.6/0.7	0.7/0.9	1.1/0.3	1.5/0.7
Maximum Overcurrent Protection (MOCP)		A	20				
Power Input (208 / 230V)	Cooling	kW	0.30 / 0.35	0.44 / 0.52	0.59 / 0.69	0.88 / 1.03	1.17 / 1.37
Power Input (208/230V)	Heating	kW	0.30 / 0.35/	0.22 / 0.26/	0.30 / 0.35/	0.44 / 0.52/	0.59 / 0.69/
Current Input (208/230V)	Cooling	A	0.061 / 0.078/	0.091 / 0.118/	0.122 / 0.157/	0.182 / 0.235/	0.243 / 0.314/
	Heating	A	0.030 / 0.039	0.046 / 0.059	0.061 / 0.078	0.091 / 0.118	0.122 / 0.157
External Dimensions		In. [mm]	9-7/8 x 23-1/2 x 15-11/16 [250 x 596 x 398]			9-7/8 x 35-7/8 x 21-1/2 [250 x 911 x 545]	9-7/8 x 44-11/16 x 21-1/2 [250 x 1,135 x 545]
Net Weight		Lbs. [kg]	58 [26]	64 [29]		109 [49]	131 [59]
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) ()				
Connectable Outdoor / Heat Source Unit Capacity			72,000 to 120,000				
Field drain pipe size		In. [mm]	3/4 NPT				
Refrigerant			R410A				
Sound power level (measured in anechoic room)	Defrost	dB(A)	40				
Sound pressure level (measured in anechoic room)	Rated operation	dB(A)	59.0				
	Defrost	dB(A)	71				

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

CMB-P NU-J1, CMB-P NU-JA1, CMB-P NU-KA1, CMB-P NU-KB1

Model Name			CMB-P104NU-KB1-BV	CMB-P108NU-KB1-BV
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000	
Number Of Branches			4	8
Electrical Power Requirements			208/230V, 1-phase, 60 Hz	
Minimum Circuit Ampacity (MCA)		A	0.3/0.4	0.7/0.9
Maximum Overcurrent Protection (MOCP)		A	20	
Power Input (208 / 230V)	Cooling	kW	0.30 / 0.35	0.59 / 0.69
Power Input (208/230V)	Heating	kW	0.15 / 0.18/	0.30 / 0.35/
Current Input (208/230V)	Cooling	A	0.061 / 0.078/	0.122 / 0.157/
	Heating	A	0.030 / 0.039	0.061 / 0.078
External Dimensions		In. [mm]	9-7/8 x 23-1/2 x 15-11/16 [250 x 596 x 398]	
Net Weight		Lbs. [kg]	51 [23]	69 [31]
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) ()	
Connectable Outdoor / Heat Source Unit Capacity			126,000 to	
Field drain pipe size		In. [mm]	3/4 NPT	
Refrigerant			R410A	
Sound power level (measured in anechoic room)	Defrost	dB(A)	40	
Sound pressure level (measured in anechoic room)	Rated operation	dB(A)	59.0	
	Defrost	dB(A)	71	

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

CMB-P NU-JA1

Model Name			CMB-P108NU-JA1-BV	CMB-P1012NU-JA1-BV	CMB-P1016NU-JA1-BV	CMB-P1016NU-KA1-BV
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000			
Number Of Branches			8	12	16	
Electrical Power Requirements			208/230V, 1-phase, 60 Hz			
Minimum Circuit Ampacity (MCA)		A	0.8/1.0	1.6/0.8		
Maximum Overcurrent Protection (MOCP)		A	20			
Power Input (208 / 230V)	Cooling	kW	0.66 / 0.77	0.95 / 0.11	1.25 / 1.45	
Power Input (208/230V)	Heating	kW	0.37 / 0.43/	0.52 / 0.60/	0.66 / 0.77/	
Current Input (208/230V)	Cooling	A	0.137 / 0.176/	0.198 / 0.255/	0.258 / 0.333/	
	Heating	A	0.076 / 0.098	0.106 / 0.137	0.137 / 0.176	
External Dimensions		In. [mm]	9-7/8 x 35-7/8 x 21-1/2 [250 x 911 x 545]	9-7/8 x 44-11/16 x 21-1/2 [250 x 1,135 x 545]		
Net Weight		Lbs. [kg]	106 [48]	133 [60]	150 [68]	153 [69]
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) ()			
Connectable Outdoor / Heat Source Unit Capacity			72,000 to 336,000			72,000 to 432,000
Field drain pipe size		In. [mm]	3/4 NPT			
Refrigerant			R410A			
Sound power level (measured in anechoic room)	Defrost	dB(A)	50			48
Sound pressure level (measured in anechoic room)	Rated operation	dB(A)	68.0			66.0
	Defrost	dB(A)	74			73

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

PUHY-EP Specifications

Specifications				System					
VOLTAGES			208/230V 460V	PUHY-EP72TNU-A1 PUHY-EP72YNU-A1	PUHY-EP96TNU-A1 PUHY-EP96YNU-A1	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1	PUHY-EP144TNU-A1 PUHY-EP144YNU-A1	PUHY-EP168TNU-A1 PUHY-EP168YNU-A1	PUHY-EP192TNU-A1 PUHY-EP192YNU-A1
Cooling Capacity (Nominal)		BTU/H		72,000	96,000	120,000	144,000	168,000	192,000
Heating Capacity (Nominal)		BTU/H		80,000	108,000	135,000	160,000	188,000	215,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 36-1/4 x 29-3/16 [1,818 x 920 x 740]	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]			71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]	
Net Weight		Lbs. [kg]	208/230V 460V	512 [232] 545 [247]	622 [282] 657 [298]	633 [287] 668 [303]	680 [308] 715 [324]	757 [343] 788 [357]	
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type)					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	32.0/29.0 14.0	44.0/40.0 20.0	55.0/49.0 25.0	60.0/60.0 33.0	70.0/67.0 34.0	80.0/74.0 37.0
Maximum Overcurrent Protection		A	208/230V 460V	50/45 20	70/60 30	90/80 40	100/100 50	110/110 50	125/125 60
Recommended Fuse Size		A	208/230V 460V	35/30 15	45/40 20	60/50 25	60/60 35	70/70 40	80/80 40
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	8/10 [8.4/5.3] 14 [2.1]	6/8 [13.3/8.4] 12 [3.3]	4/6 [21.2/13.3] 10 [5.3]	4/4 [21.2/21.2] 8 [8.4]		2/2 [33.6/33.6] 8 [8.4]
SCCR		kA		5					
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/8 [9.52] Brazed	3/8 [9.52] Brazed (Pipe Size Dependent on Piping Length)		1/2 [12.7] Brazed	5/8 [15.88] Brazed	
	Gas (Low Pressure)	In. [mm]		7/8 [22.2] Brazed		1-1/8 [28.58] Brazed			
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]					
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]					
Max. Control Wiring Length		Ft.		1,640 [500]					
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity					
	Model/Quantity			P04~P72/1.0~18.0	P04~P96/1.0~24.0	P04~P96/1.0~30.0	P04~P96/1.0~36.0	P04~P96/1.0~42.0	P04~P96/1.0~48.0
Sound Pressure Levels		dB(A)		55.0/57.0	56.0/58.5	59.5/61.5	62.0/64.5	60.0/61.5	61.5/63.5
Sound Power Levels		dB(A)		74.5/76.0	75.0/77.5	79.5/81.0	84.0/83.5	81.0/80.5	
FAN[4]	Type x Quantity			Propeller fan x 1	Propeller fan x 2				
	Fan Motor Output	kW		0.92	0.46+0.46			0.92+0.92	
		CFM		6,000	6,700	7,750	9,200	10,600	12,700
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor Operating Range				15.0% to 100.0%					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 14.0 lbs + 5.0 oz [6.5 kg]	R410A x 21.0 lbs + 9.0 oz [9.8 kg]		R410A x 23.0 lbs + 12.0 oz [10.8 kg]		
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					
AHRI Ratings (Ducted/ Non-ducted)	EER			12.2/13.7	11.9/12.3	10.7/10.9	10.5/10.7	10.1/10.1	10.2/10.3
	IEER			22.2/27.1	23.5/26.5	21.9/24.8	21.2/23.2	20.4/23.2	21.0/22.4
	COP			4.05/4.57	4.04/4.39	3.8/4.21	3.68/4.01	3.61/4.11	3.51/4.04

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.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-EP Specifications

Specifications				System	
VOLTAGES			208/230V 460V	PUHY-EP216TNU-A1 PUHY-EP216YNU-A1	PUHY-EP240TNU-A1 PUHY-EP240YNU-A1
Cooling Capacity (Nominal)		BTU/H		216,000	224,000
Heating Capacity (Nominal)		BTU/H		243,000	250,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]	
	Heating	°F [°C]		-13~60 [-25.0~15.5]	
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]	
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]	
Net Weight		Lbs. [kg]	208/230V 460V	874 [396] 904 [410]	
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type)	
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%	
Minimum Circuit Ampacity		A	208/230V 460V	88.0/80.0 40.0	88.0/85.0 41.0
Maximum Overcurrent Protection		A	208/230V 460V	150/125 60	150/125 70
Recommended Fuse Size		A	208/230V 460V	90/80 40	90/90 50
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	2/2 [33.6/33.6] 8 [8.4]	2/2 [33.6/33.6] 6 [13.3]
SCCR		kA		5	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed	
	Gas (Low Pressure)	In. [mm]		1-3/8 [34.93] Brazed	
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]	
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]	
Max. Control Wiring Length		Ft.		1,640 [500]	
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity	
	Model/Quantity			P04~P96/2.0~50.0	
Sound Pressure Levels		dB(A)		66.5/67.5	67.5/68.0
Sound Power Levels		dB(A)		88.0/86.5	91.5/87.0
FAN[4]	Type x Quantity			Propeller fan x 2	
	Fan Motor Output	kW		0.92+0.92	
		CFM		14,100	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG	
Compressor Operating Range				15.0% to 100.0%	
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1	
Refrigerant	Type x Original Charge			R410A x 26.0 lbs + 1.0 oz [11.8 kg]	
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter Circuit (Comp./Fan)			Over-current protection	
AHRI Ratings (Ducted/ Non-ducted)	EER			9.9/9.9	
	IEER			20.2/21.7	18.9/20.9
	COP			3.3/3.72	3.25/3.5

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.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-EP Specifications

Specifications				System					
VOLTAGES			208/230V 460V	PUHY-EP192TSNU-A1 PUHY-EP192YSNU-A1		PUHY-EP216TSNU-A1 PUHY-EP216YSNU-A1		PUHY-EP240TSNU-A1 PUHY-EP240YSNU-A1	
Cooling Capacity (Nominal)		BTU/H		192,000		216,000		240,000	
Heating Capacity (Nominal)		BTU/H		216,000		243,000		270,000	
Net Weight		Lbs. [kg]	208/230V 460V	1,244 [564] 1,314 [596]		1,255 [569] 1,325 [601]		1,266 [574] 1,336 [606]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed					
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		1-3/8 [34.93] Brazed			
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]	3,280	3,280 [1,000]	3,280	3,280 [1,000]	3,280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]	541	541 [165]	541	541 [165]	541
Max. Control Wiring Length		Ft.		1,640 [500]	1,640	1,640 [500]	1,640	1,640 [500]	1,640
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity					
	Model/Quantity			P04~P96/1.0~48.0		P04~P96/2.0~50.0			
Sound Pressure Levels		dB(A)		59.5/62.0		61.5/63.5		63.0/65.0	
Sound Power Levels		dB(A)		78.5/81.0		81.0/83.0		83.0/84.5	
Compressor Operating Range				7.5% to 100.0%					
AHRI Ratings (Ducted/ Non-ducted)	EER			11.2/11.4		10.5/11.1		10.2/10.0	
	IEER			22.4/24.5		21.2/24.8		21.0/22.5	
	COP			3.75/4.11		3.65/4.03		3.54/3.73	
Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PUHY-EP96TNU-A1 PUHY-EP96YNU-A1		PUHY-EP120TNU-A1 PUHY-EP120YNU-A1	PUHY-EP96TNU-A1 PUHY-EP96YNU-A1	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1	
Cooling Capacity (Nominal)		BTU/H		96,000		120,000	96,000	120,000	
Heating Capacity (Nominal)		BTU/H		108,000		135,000	108,000	135,000	
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]					
Net Weight		Lbs. [kg]	208/230V 460V	622 [282] 657 [298]		633 [287] 668 [303]	622 [282] 657 [298]	633 [287] 668 [303]	
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	44.0/40.0 20.0		55.0/49.0 25.0	44.0/40.0 20.0	55.0/49.0 25.0	
Maximum Overcurrent Protection		A	208/230V 460V	70/60 30		90/80 40	70/60 30	90/80 40	
Recommended Fuse Size		A	208/230V 460V	45/40 20		60/50 25	45/40 20	60/50 25	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	6/8 [13.3/8.4] 12 [3.3]		4/6 [21.2/13.3] 10 [5.3]	6/8 [13.3/8.4] 12 [3.3]	4/6 [21.2/13.3] 10 [5.3]	
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		6,700		7,750	6,700	7,750	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-EP Specifications

Specifications				System			
VOLTAGES			208/230V 460V	PUHY-EP264TSNU-A1 PUHY-EP264YSNU-A1		PUHY-EP288TSNU-A1 PUHY-EP288YSNU-A1	
Cooling Capacity (Nominal)		BTU/H		264,000		288,000	
Heating Capacity (Nominal)		BTU/H		296,000		323,000	
Net Weight		Lbs. [kg]	208/230V 460V	1,756 [796] 1,859 [843]		1,767 [801] 1,870 [848]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/4 [19.05] Brazed			
	Gas (Low Pressure)	In. [mm]		1-3/8 [34.93] Brazed			
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]	3,280	3,280 [1,000]	3,280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]	541	541 [165]	541
Max. Control Wiring Length		Ft.		1,640 [500]	1,640	1,640 [500]	1,640
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity			
	Model/Quantity			P04~P96/2.0~50.0			
Sound Pressure Levels		dB(A)		60.5/63.0		62.5/64.5	
Sound Power Levels		dB(A)		80.0/82.0		82.0/83.5	
Compressor Operating Range				5.0% to 100.0%			
AHRI Ratings (Ducted/ Non-ducted)	EER			11.4/11.4		10.8/10.7	
	IEER			21.7/23.7		21.2/22.9	
	COP			3.72/3.94		3.65/3.91	

Specifications				Module 1	Module 2	Module 3	Module 1	Module 2	Module 3
VOLTAGES			208/230V 460V	PUHY-EP96TNU-A1 PUHY-EP96YNU-A1		PUHY-EP72TNU-A1 PUHY-EP72YNU-A1	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1	PUHY-EP96TNU-A1 PUHY-EP96YNU-A1	PUHY-EP72TNU-A1 PUHY-EP72YNU-A1
Cooling Capacity (Nominal)		BTU/H		96,000		72,000	120,000	96,000	72,000
Heating Capacity (Nominal)		BTU/H		108,000		80,000	135,000	108,000	80,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]		71-5/8 x 36-1/4 x 29-3/16 [1,818 x 920 x 740]	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]		71-5/8 x 36-1/4 x 29-3/16 [1,818 x 920 x 740]
Net Weight		Lbs. [kg]	208/230V 460V	622 [282] 657 [298]		512 [232] 545 [247]	633 [287] 668 [303]	622 [282] 657 [298]	512 [232] 545 [247]
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	44.0/40.0 20.0		32.0/29.0 14.0	55.0/49.0 25.0	44.0/40.0 20.0	32.0/29.0 14.0
Maximum Overcurrent Protection		A	208/230V 460V	70/60 30		50/45 20	90/80 40	70/60 30	50/45 20
Recommended Fuse Size		A	208/230V 460V	45/40 20		35/30 15	60/50 25	45/40 20	35/30 15
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	6/8 [13.3/8.4] 12 [3.3]		8/10 [8.4/5.3] 14 [2.1]	4/6 [21.2/13.3] 10 [5.3]	6/8 [13.3/8.4] 12 [3.3]	8/10 [8.4/5.3] 14 [2.1]
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2		Propeller fan x 1	Propeller fan x 2		Propeller fan x 1
	Airflow Rate	CFM		6,700		6,000	7,750	6,700	6,000
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]		R410A x 14.0 lbs + 5.0 oz [6.5 kg]	R410A x 21.0 lbs + 9.0 oz [9.8 kg]		R410A x 14.0 lbs + 5.0 oz [6.5 kg]
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-EP Specifications

Specifications				System			
VOLTAGES			208/230V 460V	PUHY-EP312TSNU-A1 PUHY-EP312YSNU-A1		PUHY-EP336TSNU-A1 PUHY-EP336YSNU-A1	
Cooling Capacity (Nominal)		BTU/H		312,000		336,000	
Heating Capacity (Nominal)		BTU/H		350,000		378,000	
Net Weight		Lbs. [kg]	208/230V 460V	1,778 [806] 1,881 [853]		1,888 [856] 1,993 [904]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/4 [19.05] Brazed			
	Gas (Low Pressure)	In. [mm]		1-3/8 [34.93] Brazed		1-5/8 [41.28] Brazed	
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]	3,280	3,280 [1,000]	3,280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]	541	541 [165]	541
Max. Control Wiring Length		Ft.		1,640 [500]	1,640	1,640 [500]	1,640
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity			
	Model/Quantity			P04~P96/2.0~50.0			
Sound Pressure Levels		dB(A)		63.5/65.5			
Sound Power Levels		dB(A)		83.5/85.0			
Compressor Operating Range				5.0% to 100.0%			
AHRI Ratings (Ducted/ Non-ducted)	EER			10.4/9.9		10.5/10.0	
	IEER			20.5/21.6		21.0/22.4	
	COP			3.58/3.78		3.58/3.68	

Specifications				Module 1	Module 2	Module 3	Module 1	Module 2	Module 3
VOLTAGES			208/230V 460V	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1		PUHY-EP72TNU-A1 PUHY-EP72YNU-A1	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1		PUHY-EP96TNU-A1 PUHY-EP96YNU-A1
Cooling Capacity (Nominal)		BTU/H		120,000		72,000	120,000		96,000
Heating Capacity (Nominal)		BTU/H		135,000		80,000	135,000		108,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]		71-5/8 x 36-1/4 x 29-3/16 [1,818 x 920 x 740]	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]		
Net Weight		Lbs. [kg]	208/230V 460V	633 [287] 668 [303]		512 [232] 545 [247]	633 [287] 668 [303]		622 [282] 657 [298]
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	55.0/49.0 25.0		32.0/29.0 14.0	55.0/49.0 25.0		44.0/40.0 20.0
Maximum Overcurrent Protection		A	208/230V 460V	90/80 40		50/45 20	90/80 40		70/60 30
Recommended Fuse Size		A	208/230V 460V	60/50 25		35/30 15	60/50 25		45/40 20
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/6 [21.2/13.3] 10 [5.3]		8/10 [8.4/5.3] 14 [2.1]	4/6 [21.2/13.3] 10 [5.3]		6/8 [13.3/8.4] 12 [3.3]
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2		Propeller fan x 1	Propeller fan x 2		
	Airflow Rate	CFM		7,750		6,000	7,750		6,700
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]		R410A x 14.0 lbs + 5.0 oz [6.5 kg]	R410A x 21.0 lbs + 9.0 oz [9.8 kg]		
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-EP Specifications

Specifications				System			
VOLTAGES			208/230V 460V	PUHY-EP360TSNU-A1 PUHY-EP360YSNU-A1		PUHY-EP384TSNU-A1 PUHY-EP384YSNU-A1	
Cooling Capacity (Nominal)		BTU/H		360,000		384,000	
Heating Capacity (Nominal)		BTU/H		405,000		430,000	
Net Weight		Lbs. [kg]	208/230V 460V	1,899 [861] 2,004 [909]		1,946 [882] 2,051 [930]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/4 [19.05] Brazed			
	Gas (Low Pressure)	In. [mm]		1-5/8 [41.28] Brazed			
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]	3,280	3,280 [1,000]	3,280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]	541	541 [165]	541
Max. Control Wiring Length		Ft.		1,640 [500]	1,640	1,640 [500]	1,640
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity			
	Model/Quantity			P04~P96/2.0~50.0			
Sound Pressure Levels		dB(A)		64.5/66.5		65.5/68.0	
Sound Power Levels		dB(A)		84.5/86.0		86.5/87.0	
Compressor Operating Range				5.0% to 100.0%			
AHRI Ratings (Ducted/ Non-ducted)	EER			10.1/9.7		9.9/9.2	
	IEER			20.5/22.0		19.7/19.5	
	COP			3.51/3.65		3.48/3.57	

Specifications				Module 1	Module 2	Module 3	Module 1	Module 2	Module 3
VOLTAGES			208/230V 460V	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1			PUHY-EP144TNU-A1 PUHY-EP144YNU-A1	PUHY-EP120TNU-A1 PUHY-EP120YNU-A1	
Cooling Capacity (Nominal)		BTU/H		120,000			144,000	120,000	
Heating Capacity (Nominal)		BTU/H		135,000			160,000	135,000	
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]					
Net Weight		Lbs. [kg]	208/230V 460V	633 [287] 668 [303]			680 [308] 715 [324]	633 [287] 668 [303]	
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	55.0/49.0 25.0			60.0/60.0 33.0	55.0/49.0 25.0	
Maximum Overcurrent Protection		A	208/230V 460V	90/80 40			100/100 50	90/80 40	
Recommended Fuse Size		A	208/230V 460V	60/50 25			60/60 35	60/50 25	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/6 [21.2/13.3] 10 [5.3]			4/4 [21.2/21.2] 8 [8.4]	4/6 [21.2/13.3] 10 [5.3]	
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		7,750			9,200	7,750	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]			R410A x 23.0 lbs + 12.0 oz [10.8 kg]	R410A x 21.0 lbs + 9.0 oz [9.8 kg]	
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-EP Specifications

Specifications				System					
VOLTAGES			208/230V 460V	PUHY-EP408TSNU-A1 PUHY-EP408YSNU-A1			PUHY-EP432TSNU-A1 PUHY-EP432YSNU-A1		
Cooling Capacity (Nominal)		BTU/H		408,000			432,000		
Heating Capacity (Nominal)		BTU/H		455,000			480,000		
Net Weight		Lbs. [kg]	208/230V 460V	1,993 [903] 2,098 [951]			2,040 [924] 2,145 [972]		
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/4 [19.05] Brazed					
	Gas (Low Pressure)	In. [mm]		1-5/8 [41.28] Brazed					
Max. Total Refrigerant Line Length		Ft.		3,280 [1,000]		3,280	3,280 [1,000]		3,280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541 [165]		541	541 [165]		541
Max. Control Wiring Length		Ft.		1,640 [500]		1,640	1,640 [500]		1,640
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity					
	Model/Quantity			P04~P96/3.0~50.0					
Sound Pressure Levels		dB(A)		66.5/68.5			67.0/69.5		
Sound Power Levels		dB(A)		88.0/88.0			89.0/88.5		
Compressor Operating Range				5.0% to 100.0%					
AHRI Ratings (Ducted/ Non-ducted)	EER			9.8/9.1					
	IEER			19.1/18.7			18.8/18.2		
	COP			3.45/3.49			3.41/3.41		
Specifications				Module 1	Module 2	Module 3	Module 1	Module 2	Module 3
VOLTAGES			208/230V 460V	PUHY-EP144TNU-A1 PUHY-EP144YNU-A1		PUHY-EP120TNU-A1 PUHY-EP120YNU-A1	PUHY-EP144TNU-A1 PUHY-EP144YNU-A1		
Cooling Capacity (Nominal)		BTU/H		144,000		120,000	144,000		
Heating Capacity (Nominal)		BTU/H		160,000		135,000	160,000		
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-13~60 [-25.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]					
Net Weight		Lbs. [kg]	208/230V 460V	680 [308] 715 [324]		633 [287] 668 [303]	680 [308] 715 [324]		
External Finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	60.0/60.0 33.0		55.0/49.0 25.0	60.0/60.0 33.0		
Maximum Overcurrent Protection		A	208/230V 460V	100/100 50		90/80 40	100/100 50		
Recommended Fuse Size		A	208/230V 460V	60/60 35		60/50 25	60/60 35		
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/4 [21.2/21.2] 8 [8.4]		4/6 [21.2/13.3] 10 [5.3]	4/4 [21.2/21.2] 8 [8.4]		
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		9,200		7,750	9,200		
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 23.0 lbs + 12.0 oz [10.8 kg]		R410A x 21.0 lbs + 9.0 oz [9.8 kg]	R410A x 23.0 lbs + 12.0 oz [10.8 kg]		
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-current protection					

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-HP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PUHY-HP72TNU-A1 PUHY-HP72YNU-A1	PUHY-HP96TNU-A1 PUHY-HP96YNU-A1	PUHY-HP120TNU-A1 PUHY-HP120YNU-A1
Cooling Capacity (Nominal)		BTU/H		72,000	96,000	120,000
Heating Capacity (Nominal)		BTU/H		80,000	108,000	135,000
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]		
	Heating	°F [°C]		-22~60 [-30.0~15.5]		
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]		
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 49-1/4 x 29-3/8 [1,818 x 1,250 x 745]		
Net Weight		Lbs. [kg]	208/230V 460V	609 [276] 644 [292]	653 [296] 688 [312]	655 [297] 691 [313]
External Finish				Pre-coated galvanized steel sheet		
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%		
Minimum Circuit Ampacity		A	208/230V 460V	55.0/49.0 25.0	63.0/57.0 29.0	66.0/60.0 35.0
Maximum Overcurrent Protection		A	208/230V 460V	90/80 40	100/90 45	110/100 50
Recommended Fuse Size		A	208/230V 460V	60/50 25	70/60 30	70/60 35
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/6 [21.2/13.3] 10 [5.3]	4/4 [21.2/21.2] 10 [5.3]	4/4 [21.2/21.2] 8 [8.4]
SCCR		kA		5		
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/8 [9.52] Brazed	3/8 [9.52] Brazed (Pipe Size Dependent on Piping Length)	
	Gas (Low Pressure)	In. [mm]		7/8 [22.2] Brazed		1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length		Ft.		3,280		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity		
	Model/Quantity			P04~P72/1.0~18.0	P04~P96/1.0~24.0	P04~P96/1.0~30.0
Sound Pressure Levels		dB(A)		55.0/57.0	56.0/58.5	59.5/61.5
Sound Power Levels		dB(A)		74.0/76.0	75.0/77.5	79.5/80.5
FAN[4]	Type x Quantity			Propeller fan x 2		
	Fan Motor Output	kW		0.46+0.46		
		CFM		6,700	7,400	7,750
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG		
Compressor Operating Range				15.0% to 100.0%		
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1		
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]	R410A x 23.0 lbs + 12.0 oz [10.8 kg]	
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter Circuit (Comp./Fan)			Over-heat protection, Over-current protection	Over-current protection	Over-heat protection, Over-current protection
AHRI Ratings (Ducted/ Non-ducted)	EER			11.9/12.5	12.3/12.5	11.4/11.2
	IEER			21.8/24.7	21.0/23.3	20.3/22.4
	COP			4.03/4.39	4.0/4.35	3.76/4.26

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.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PUHY-HP Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PUHY-HP144TSNU-A1 PUHY-HP144YSNU-A1	PUHY-HP192TSNU-A1 PUHY-HP192YSNU-A1	PUHY-HP240TSNU-A1 PUHY-HP240YSNU-A1
Cooling Capacity (Nominal)		BTU/H		144,000	192,000	240,000
Heating Capacity (Nominal)		BTU/H		160,000	215,000	270,000
Net Weight		Lbs. [kg]	208/230V 460V	1,218 [552] 1,288 [584]	1,306 [592] 1,376 [624]	1,310 [594] 691 [313]
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		1/2 [12.7] Brazed	5/8 [15.88] Brazed	
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		
Max. Total Refrigerant Line Length		Ft.		3,280		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~130.0% of outdoor unit capacity		
	Model/Quantity			P04~P96/1.0~36.0	P04~P96/1.0~48.0	P04~P96/2.0~50.0
Sound Pressure Levels		dB(A)		58.5/60.5	59.5/62.0	63.0/65.0
Sound Power Levels		dB(A)		77.5/79.5	78.5/81.0	83.0/84.0
Compressor Operating Range				7.5% to 100.0%		
AHRI Ratings (Ducted/ Non-ducted)	EER			10.8/11.6	11.6/11.5	10.9/10.1
	IEER			19.4/23.1	19.8/21.6	19.1/20.2
	COP			3.69/4.1	3.71/4.07	3.5/3.78

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PUHY-HP72TNU-A1 PUHY-HP72YNU-A1		PUHY-HP96TNU-A1 PUHY-HP96YNU-A1		PUHY-HP120TNU-A1 PUHY-HP120YNU-A1	
Cooling Capacity (Nominal)		BTU/H		72,000		96,000		120,000	
Heating Capacity (Nominal)		BTU/H		80,000		108,000		135,000	
Guaranteed Operating Range	Cooling	°F [°C]		23~126 [-5.0~52.0]					
	Heating	°F [°C]		-22~60 [-30.0~15.5]					
Extended Operating Range	Heating	°F [°C]		-27.4~60 [-33.0~15.5]					
External Dimensions (H x W x D)		In. [mm]	208/230V 460V	71-5/8 x 49-1/4 x 29-3/8 [1,818 x 1,250 x 745]					
Net Weight		Lbs. [kg]	208/230V 460V	609 [276] 644 [292]		653 [296] 688 [312]		655 [297] 691 [313]	
External Finish				Pre-coated galvanized steel sheet [MUNSELL 3Y 7.8/1.1 or similar]					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230V, 3-phase, 60 Hz, ±10% 460V, 3-phase, 60 Hz, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	55.0/49.0 25.0		63.0/57.0 29.0		66.0/60.0 35.0	
Maximum Overcurrent Protection		A	208/230V 460V	90/80 40		100/90 45		110/100 50	
Recommended Fuse Size		A	208/230V 460V	60/50 25		70/60 30		70/60 35	
Recommended Minimum Wire Size		AWG [mm]	208/230V 460V	4/6 [21.2/13.3] 10 [5.3]		4/4 [21.2/21.2] 10 [5.3]		4/4 [21.2/21.2] 8 [8.4]	
SCCR		kA		5					
FAN[4]	Type x Quantity			Propeller fan x 2					
	Airflow Rate	CFM		6,700		7,400		7,750	
	External Static Pressure	In. WG		Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG					
Compressor	Type x Quantity			Inverter scroll hermetic compressor x 1					
Refrigerant	Type x Original Charge			R410A x 21.0 lbs + 9.0 oz [9.8 kg]		R410A x 23.0 lbs + 12.0 oz [10.8 kg]			
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit (Comp./Fan)			Over-heat protection, Over-current protection		Over-current protection	Over-heat protection, Over-current protection	Over-current protection	Over-heat protection, Over-current protection

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.)
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed
[5]Efficiency ratings are based on AHRI 1230 test method

PQHY-P Specifications

Specifications				System					
VOLTAGES			208/230V 460V	PQHY-P72TLMU-A1 PQHY-P72YLMU-A1	PQHY-P96TLMU-A1 PQHY-P96YLMU-A1	PQHY-P120TLMU-A1 PQHY-P120YLMU-A1	PQHY-P144TLMU-A1 PQHY-P144YLMU-A1	PQHY-P168TLMU-A1 PQHY-P168YLMU-A1	PQHY-P192TLMU-A1 PQHY-P192YLMU-A1
Cooling Capacity (Nominal)		BTU/H		72,000	96,000	120,000	144,000	168,000	192,000
Heating Capacity (Nominal)		BTU/H		80,000	108,000	135,000	160,000	188,000	215,000
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~24.0]					
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]					
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]					
External Dimensions (H x W x D)		In. [mm]		43-5/16 x 34-11/16 x 21-11/16 [1,100 x 880 x 550]			57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]		
Net Weight		Lbs. [kg]	208/230V 460V	375 [170] 400 [181]			474 [215] 501 [227]		
External Finish				Galvanized steel sheets					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10% 460, 3, 60, ±10%					
Minimum Circuit Ampacity		A	208/230V 460V	13.0/12.0 6.0	19.0/17.0 9.0	29.0/26.0 13.0	35.0/32.0 16.0	44.0/39.0 20.0	54.0/49.0 25.0
Maximum Overcurrent Protection		A	208/230V 460V	20/20 15	30/25 15	50/45 20	60/50 25	70/70 35	90/80 40
SCCR		kA		5					
Flow Rate		G/min (gpm)		25.4			31.7		
		L/min		96			120		
Pressure Drop		psi		3.48			6.38		
		Ft.		8.0			14.7		
Operation Volume Range		G/min (gpm)		13.2~31.7			19.8~50.9		
		m^3/h		3.0~7.2			4.5~11.6		
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		3/8 [9.52] Brazed			1/2 [12.7] Brazed	5/8 [15.88] Brazed	
	Gas (Low Pressure)	In. [mm]		3/4 [19.05] Brazed	7/8 [22.2] Brazed		1-1/8 [28.58] Brazed		
Max. Total Refrigerant Line Length		Ft.		984					
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541					
Max. Control Wiring Length		Ft.		1,640					
Indoor Unit Connectable	Total Capacity			50.0~130.0% of heatsource unit capacity					
	Model/Quantity			P06~P96/1.0~15.0	P06~P96/1.0~20.0	P06~P96/1.0~26.0	P06~P96/1.0~31.0	P06~P96/1.0~36.0	P06~P96/1.0~41.0
Sound Pressure Level		dB(A)		46.0/46.0	48.0/48.0	54.0/54.0		56.0/56.0	58.0/58.0
Compressor Operating Range				24.0% to 100.0%	18.0% to 100.0%	14.0% to 100.0%	19.0% to 100.0%	16.0% to 100.0%	14.0% to 100.0%
Compressor	Type x Quantity			Inverter scroll hermetic x 1					
Compressor Motor Output		kW		4.3	6.0	7.7	9.5	11.0	12.4
Refrigerant	Type x Original Charge			R410A x 11.0 lbs. + 1.0oz. [5.0 kg]			R410A x 13.0 lbs. + 4.0oz. [6.0 kg]		
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit			Over-heat protection, Over-current protection					
	Compressor			Over-heat protection					
Lubricant				MEL32					
AHRI Ratings (Ducted/ Non-ducted)	EER			17.4/20.7	15.3/19.4	13.5/15.9	12.1/15.6	12.0/13.6	11.5/12.5
	IEER			24.2/28.1	25.0/30.4	23.2/29.0	19.5/23.1	18.0/21.8	18.4/21.7
	COP			5.62/6.15	5.8/6.02	5.55/5.66	4.92/5.56	4.76/5.43	4.62/5.19

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.

PQHY-P Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PQHY-P216TLMU-A1 PQHY-P216YLMU-A1	PQHY-P240TLMU-A1 PQHY-P240YLMU-A1	
Cooling Capacity (Nominal)		BTU/H		216,000	240,000	
Heating Capacity (Nominal)		BTU/H		243,000	270,000	
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~24.0]		
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]		
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]		
External Dimensions (H x W x D)		In. [mm]		57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]		
Net Weight		Lbs. [kg]	208/230V 460V	552 [250] 567 [257]		
External Finish				Galvanized steel sheets		
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10% 460, 3, 60, ±10%		
Minimum Circuit Ampacity		A	208/230V 460V	69.0/63.0 31.0	79.0/71.0 36.0	
Maximum Overcurrent Protection		A	208/230V 460V	110/110 50	125/125 60	
SCCR		kA		5		
Flow Rate		G/min (gpm)		50.7		
		L/min		192		
Pressure Drop		psi		6.53		
		Ft.		15.1		
Operation Volume Range		G/min (gpm)		26.4~63.4		
		m^3/h		6.0~14.4		
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed		
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		
Max. Total Refrigerant Line Length		Ft.		984		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~130.0% of heatsource unit capacity		
	Model/Quantity			P06~P96/2.0~46.0	P05~P96/2.0~50.0	P06~P96/2.0~50.0
Sound Pressure Level		dB(A)		58.0/58.0		
Compressor Operating Range				13.0% to 100.0%	12.0% to 100.0%	
Compressor	Type x Quantity			Inverter scroll hermetic x 1		
Compressor Motor Output		kW		14.5	16.1	
Refrigerant	Type x Original Charge			R410A x 25.0 lbs. + 13.0oz. [11.7 kg]		
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter Circuit			Over-heat protection, Over-current protection		
	Compressor			Over-heat protection		
Lubricant				MEL32		
AHRI Ratings (Ducted/ Non-ducted)	EER			11.3/10.9	10.8/11.0	
	IEER			19.0/21.2	18.8/21.2	
	COP			4.77/5.26	4.54/5.08	

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.

PQHY-P Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PQHY-P144TSLMU-A1 PQHY-P144YSLMU-A1	PQHY-P168TSLMU-A1 PQHY-P168YSLMU-A1	PQHY-P192TSLMU-A1 PQHY-P192YSLMU-A1
Cooling Capacity (Nominal)		BTU/H		144,000	168,000	192,000
Heating Capacity (Nominal)		BTU/H		160,000	188,000	215,000
Net Weight		Lbs. [kg]	208/230V 460V	764 [346] 812 [368]	750 [340] 800 [362]	472 [215] 800 [362]
Refrigerant Piping Diameter From Twinning Kit to First Joint or Header	Liquid (High Pressure)	In. [mm]		1/2 [12.7] Brazed	5/8 [15.88] Brazed	
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		
Max. Total Refrigerant Line Length		Ft.		1,640		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~130.0% of heatsource unit capacity		
	Model/Quantity			P06~P96/1.0~31.0	P06~P96/1.0~36.0	P06~P96/1.0~41.0
Sound Pressure Level		dB(A)		49.0/49.0	50.0/50.0	51.0/51.0
Compressor Operating Range				12.0% to 100.0%	10.0% to 100.0%	9.0% to 100.0%
AHRI Ratings (Ducted/ Non-ducted)	EER			15.2/19.0	15.0/17.3	14.5/16.4
	IEER			22.5/26.1	23.6/25.8	24.4/26.4
	COP			5.32/6.01	5.61/5.72	5.8/5.57

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PQHY-P72TLMU-A1 PQHY-P72YLMU-A1		PQHY-P96TLMU-A1 PQHY-P96YLMU-A1	PQHY-P72TLMU-A1 PQHY-P72YLMU-A1	PQHY-P96TLMU-A1 PQHY-P96YLMU-A1	
Cooling Capacity (Nominal)		BTU/H		72,000		96,000	72,000	96,000	
Heating Capacity (Nominal)		BTU/H		80,000		108,000	80,000	108,000	
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~ 24.0]					
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]					
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]					
External Dimensions (H x W x D)		In. [mm]		43-5/16 x 34-11/16 x 21-11/16 [1,100 x 880 x 550]					
Net Weight		Lbs. [kg]	208/230V 460V	375 [170] 400 [181]					
External Finish				Galvanized steel sheets					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10 460, 3, 60, ±10					
Minimum Circuit Ampacity		A	208/230V 460V	13.0/12.0 6.0		19.0/17.0 9.0	13.0/12.0 6.0	19.0/17.0 9.0	
Maximum Overcurrent Protection		A	208/230V 460V	20/20 15		30/25 15	20/20 15	30/25 15	
SCCR		kA		5					
Flow Rate		G/min [gpm]		25.4					
		L/min		96					
Pressure Drop		psi		3.48					
		Ft.		8.0					
Operation Volume Range		G/min [gpm]		13.2~31.7					
		m3/h		3.0~7.2					
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]		3/8 [9.52] Brazed					
	Gas (Low Pressure)	In. [mm]		3/4 [19.05] Brazed		7/8 [22.2] Brazed	3/4 [19.05] Brazed	7/8 [22.2] Brazed	
Compressor	Type x Quantity			Inverter scroll hermetic x 1					
Compressor Motor Output		kW		4.3		6.0	4.3	6.0	
Refrigerant	Type x Original Charge			R410A x 11.0 lbs. + 1.0oz. [5.0 kg]					
Lubricant				MEL32					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit			Over-heat protection, Over-current protection					
	Compressor			Over-heat protection					

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

PQHY-P Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PQHY-P216TSLMU-A1 PQHY-P216YSLMU-A1	PQHY-P240TSLMU-A1 PQHY-P240YSLMU-A1	PQHY-P288TSLMU-A1 PQHY-P288YSLMU-A1
Cooling Capacity (Nominal)		BTU/H		216,000	240,000	288,000
Heating Capacity (Nominal)		BTU/H		243,000	270,000	323,000
Net Weight		Lbs. [kg]	208/230V 460V	750 [340] 800 [362]		948 [430] 1,002 [454]
Refrigerant Piping Diameter From Twinning Kit to First Joint or Header	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed		3/4 [19.05] Brazed
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed		1-3/8 [34.93] Brazed
Max. Total Refrigerant Line Length		Ft.		1,640		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~130.0% of heatsource unit capacity		
	Model/Quantity			P06~P96/2.0~46.0	P06~P96/2.0~50.0	
Sound Pressure Level		dB(A)		55.0/55.0	57.0/57.0	
Compressor Operating Range				8.0% to 100.0%	7.0% to 100.0%	9.0% to 100.0%
AHRI Ratings (Ducted/ Non-ducted)	EER			13.6/15.0	12.5/13.9	11.4/13.8
	IEER			23.5/25.9	22.4/25.7	18.5/20.6
	COP			5.68/5.43	5.49/5.35	4.92/5.27

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PQHY-P120TLMU-A1 PQHY-P120YLMU-A1	PQHY-P96TLMU-A1 PQHY-P96YLMU-A1	PQHY-P120TLMU-A1 PQHY-P120YLMU-A1		PQHY-P144TLMU-A1 PQHY-P144YLMU-A1	
Cooling Capacity (Nominal)		BTU/H		120,000	96,000	120,000		144,000	
Heating Capacity (Nominal)		BTU/H		135,000	108,000	135,000		160,000	
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~ 24.0]					
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]					
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]					
External Dimensions (H x W x D)		In. [mm]		43-5/16 x 34-11/16 x 21-11/16 [1,100 x 880 x 550]				57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]	
Net Weight		Lbs. [kg]	208/230V 460V	375 [170] 400 [181]				474 [215] 501 [227]	
External Finish				Galvanized steel sheets					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10 460, 3, 60, ±10					
Minimum Circuit Ampacity		A	208/230V 460V	29.0/26.0 13.0	19.0/17.0 9.0	29.0/26.0 13.0		35.0/32.0 16.0	
Maximum Overcurrent Protection		A	208/230V 460V	50/45 20	30/25 15	50/45 20		60/50 25	
SCCR		kA		5					
Flow Rate		G/min [gpm]		25.4				31.7	
		L/min		96				120	
Pressure Drop		psi		3.48				6.38	
		Ft.		8.0				14.7	
Operation Volume Range		G/min [gpm]		13.2~31.7				19.8~50.9	
		m3/h		3.0~7.2				4.5~11.6	
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]		3/8 [9.52] Brazed				1/2 [12.7] Brazed	
	Gas (Low Pressure)	In. [mm]		7/8 [22.2] Brazed				1-1/8 [28.58] Brazed	
Compressor	Type x Quantity			Inverter scroll hermetic x 1					
Compressor Motor Output		kW		7.7	6.0	7.7		9.5	
Refrigerant	Type x Original Charge			R410A x 11.0 lbs. + 1.0oz. [5.0 kg]				R410A x 13.0 lbs. + 4.0oz. [6.0 kg]	
Lubricant				MEL32					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit			Over-heat protection, Over-current protection					
	Compressor			Over-heat protection					

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

PQHY-P Specifications

Specifications				System		
VOLTAGES			208/230V 460V	PQHY-P312TSLMU-A1 PQHY-P312YSLMU-A1	PQHY-P336TSLMU-A1 PQHY-P336YSLMU-A1	PQHY-P360TSLMU-A1 PQHY-P360YSLMU-A1
Cooling Capacity (Nominal)		BTU/H		312,000	336,000	360,000
Heating Capacity (Nominal)		BTU/H		350,000	378,000	405,000
Net Weight		Lbs. [kg]	208/230V 460V	948 [430] 1,002 [454]		
Refrigerant Piping Diameter From Twinning Kit to First Joint or Header	Liquid (High Pressure)	In. [mm]		3/4 [19.05] Brazed		
	Gas (Low Pressure)	In. [mm]		1-3/8 [34.93] Brazed	1-5/8 [41.28] Brazed	
Max. Total Refrigerant Line Length		Ft.		1,640		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.		541		
Max. Control Wiring Length		Ft.		1,640		
Indoor Unit Connectable	Total Capacity			50.0~130.0% of heatsource unit capacity		
	Model/Quantity			P06~P96/2.0~50.0		
Sound Pressure Level		dB(A)		58.0/58.0	59.0/59.0	60.0/60.0
Compressor Operating Range				9.0% to 100.0%	8.0% to 100.0%	
AHRI Ratings (Ducted/ Non-ducted)	EER			11.2/13.0	11.1/12.3	11.2/12.1
	IEER			17.6/20.4	16.8/20.1	17.5/20.3
	COP			4.8/5.26	4.67/5.25	4.64/5.14

Specifications				Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
VOLTAGES			208/230V 460V	PQHY-P168TLMU-A1 PQHY-P168YLMU-A1	PQHY-P144TLMU-A1 PQHY-P144YLMU-A1	PQHY-P168TLMU-A1 PQHY-P168YLMU-A1		PQHY-P192TLMU-A1 PQHY-P192YLMU-A1	PQHY-P168TLMU-A1 PQHY-P168YLMU-A1
Cooling Capacity (Nominal)		BTU/H		168,000	144,000	168,000		192,000	168,000
Heating Capacity (Nominal)		BTU/H		188,000	160,000	188,000		215,000	188,000
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]		59~75 [15.0~ 24.0]					
	Heating (Indoor)	°F DB [°C DB]		59~81 [15.0~27.0]					
Operating Water Temperature Range[1]	Cooling/Heating	°F [°C]		50~113.0 [10~45.0]					
External Dimensions (H x W x D)		In. [mm]		57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]					
Net Weight		Lbs. [kg]	208/230V 460V	474 [215] 501 [227]					
External Finish				Galvanized steel sheets					
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V 460V	208/230, 3, 60, ±10 460, 3, 60, ±10					
Minimum Circuit Ampacity		A	208/230V 460V	44.0/39.0 20.0	35.0/32.0 16.0	44.0/39.0 20.0		54.0/49.0 25.0	44.0/39.0 20.0
Maximum Overcurrent Protection		A	208/230V 460V	70/70 35	60/50 25	70/70 35		90/80 40	70/70 35
SCCR		kA		5					
Flow Rate		G/min [gpm]		31.7					
		L/min		120					
Pressure Drop		psi		6.38					
		Ft.		14.7					
Operation Volume Range		G/min [gpm]		19.8~50.9					
		m3/h		4.5~11.6					
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]		5/8 [15.88] Brazed	1/2 [12.7] Brazed	5/8 [15.88] Brazed			
	Gas (Low Pressure)	In. [mm]		1-1/8 [28.58] Brazed					
Compressor	Type x Quantity			Inverter scroll hermetic x 1					
Compressor Motor Output		kW		11.0	9.5	11.0		12.4	11.0
Refrigerant	Type x Original Charge			R410A x 13.0 lbs. + 4.0oz. [6.0 kg]					
Lubricant				MEL32					
Protection Devices	High Pressure Protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)					
	Inverter Circuit			Over-heat protection, Over-current protection					
	Compressor			Over-heat protection					

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.
Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

Ventilation

CITY MULTI® products feature a variety of systems so you can design one that best meets your needs.

PremiSys® Dedicated Outdoor System (DOAS)

The PremiSys series of rooftop ventilation products is a premier solution for outdoor air conditioning for commercial buildings. Designed to handle 100% outdoor air with optional energy recovery, PremiSys products offer premium features ideal for handling ventilation air in variable refrigerant flow (VRF) applications. The PremiSys models MP and MPE (with energy recovery) are pre-engineered to provide semi-custom flexibility while maintaining the quality, consistency, and value of a standardized product.

- Inverter Compressor option available: MP-1 and MPE-1: 5-15 tons; MP-2 and MPE-2: 15-30 tons
  - Available at 208, 230 and 460V
  - Improves partial load efficiency
  - Specifiable feature for precise temperature and humidity control
- Controls platform and web user interface for all MP, MPE and MPF models
- Carel Controller Platform Upgrades
  - Expanded points list
  - Web interface

Unit Size	Nominal Tonnage (tons)	Height	Width	Length	Intake	Condensing Section	Nominal Weight (lbs.)	Outdoor Intake	Supply Discharge	Exhaust Discharge
MP-1	5-15	59	53	99	22	30	2,700	End	Bottom or Side	N/A
MP-2	15-30	73	68	109	27	30	4,500			
MP-4	20-43	90	68	156	22.27	30	6,400			
MP-5	30-70	99.5	96	185	52.5	NA[1]	7,950			Side
MPE-1	5-15	59	53	150	22	30	3,400			
MPE-2	15-30	73	68	163	27	30	5,100			
MPE-4	20-43	90	68	224	22/27	30	8,300			
MPE-5	30-70	99.5	96	263[2] 307[3]	47	NA[1]	10,450			

Notes: 1. Condensing section mounted on top of unit 2. Length with bottom return 3. Length with side return

PremiSys® Fusion

The PremiSys Fusion MPF-1 Model and MPF-2 Model (split system with energy recovery) are pre-engineered to provide semi-custom flexibility while maintaining the quality, consistency, and value of a standardized product.

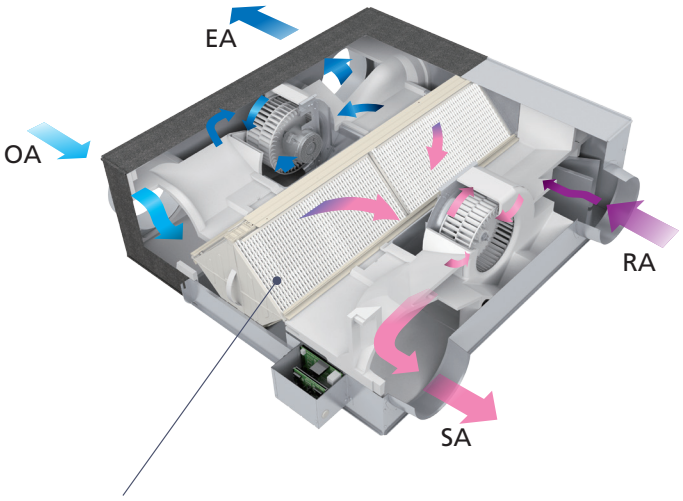
Unit Size	Nominal Tonnage (tons)	Height	Width	Length	Intake	Condensing Section	Nominal Weight (lbs.)	Outdoor Intake	Supply Discharge	Exhaust Discharge
MPF-1	5-12	59	53	150	22	Remote	3,400	End	Bottom or Side	Side
MPF-2	10-20	73	68	163	27	Remote	5,100			

Lossnay® Systems

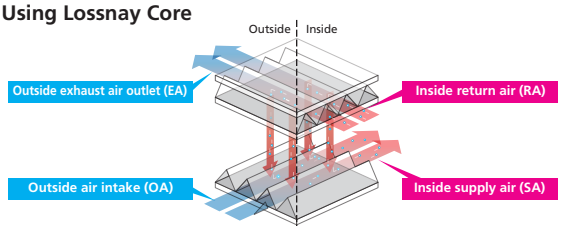
Energy Recovery Ventilators (ERVs)

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

- Lossnay core
- Over 50% enthalpy exchange efficiency
- Four fan speeds offering a wide range of airflow variations, from small to large volume
- Independent control of supply and exhaust fans
- M-NET connectivity for use with CITY MULTI® central controllers and BMS interfaces
- Sound pressure level: maximum sound level 40.5 dB(A)
- Three ventilation modes: Auto, Bypass, Heat Recovery
- DC motor requiring less than 1W/CFM for all fan speeds



The Concept Of Sensible Heat and Latent Heat Exchange Using Lossnay Core



Improvements Made by Introducing Lossnay

Ventilation with Maximized Comfort

Summer

	LOSSNAY	Conventional Ventilator
Dry Bulb Temperature (° F)	83.0	91.4
Absolute Humidity (lb/lb'(DA))	0.0158	0.0201
Relative Humidity (%)	65	63
Enthalpy (Btu/lb(DA))	29.6	36.4
Total Energy Recovery (kW)	5.4	0
Outdoor Air Load (kW)	5.4	10.8
Outdoor Air Load Ratio (%)	50	100

Dry Bulb Temperature (° F)	32° F
Absolute Humidity (lb/lb'(DA))	0.0019
Relative Humidity (%)	50%
Enthalpy (Btu/lb(DA))	2.0

Dry Bulb Temperature (° F)	68.0° F
Absolute Humidity (lb/lb'(DA))	0.0073
Relative Humidity (%)	50%
Enthalpy (Btu/lb(DA))	16.6

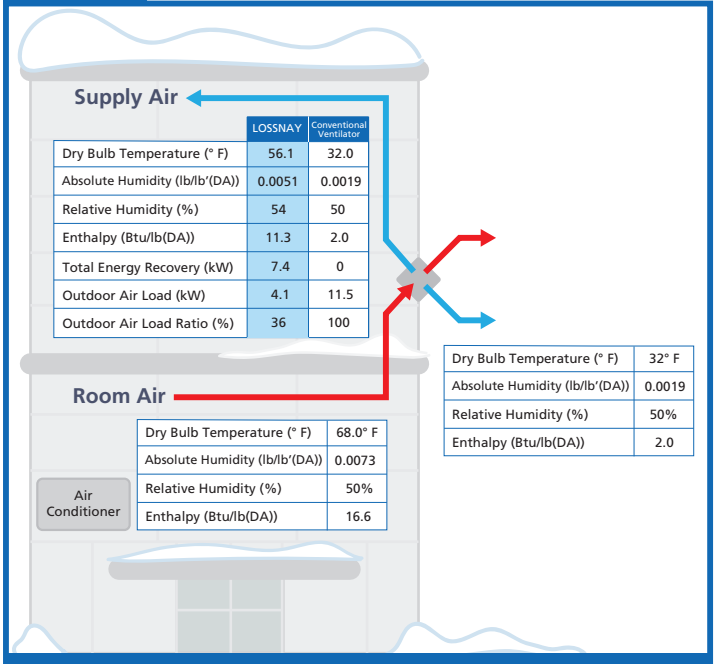
Heat Recovery Calculation

Outdoor Temperature (° F) − { Outdoor Temperature (° F) − Indoor Temperature (° F) } x Temp Recovery Efficienct (%) = Indoor Supply-air Temperature (° F)

Calculation Example: 91.4° F - (91.4° F-78.8° F) x 67% = 83° F

*Supplies air similar to the conditions of cooled (dehumidified) indoor air
*The above applies to the case of LGH-F600RVX-E (fan speed 4).

Winter



	LOSSNAY	Conventional Ventilator
Dry Bulb Temperature (° F)	56.1	32.0
Absolute Humidity (lb/lb'(DA))	0.0051	0.0019
Relative Humidity (%)	54	50
Enthalpy (Btu/lb(DA))	11.3	2.0
Total Energy Recovery (kW)	7.4	0
Outdoor Air Load (kW)	4.1	11.5
Outdoor Air Load Ratio (%)	36	100

Dry Bulb Temperature (° F)	32° F
Absolute Humidity (lb/lb'(DA))	0.0019
Relative Humidity (%)	50%
Enthalpy (Btu/lb(DA))	2.0

Dry Bulb Temperature (° F)	68.0° F
Absolute Humidity (lb/lb'(DA))	0.0073
Relative Humidity (%)	50%
Enthalpy (Btu/lb(DA))	16.6

Heat Recovery Calculation

{ Indoor Temperature (° F) − Outdoor Temperature (° F) } x Temp Recovery Efficienct (%) + Outdoor Temperature (° F) = Indoor Supply-air Temperature (° F)

Calculation Example: (68° F - 32° F)x67° F + 32° F = 56° F

*Supplies air similar to the conditions of cooled (dehumidified) indoor air

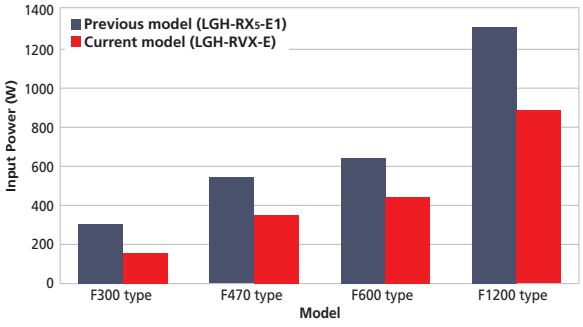

PremiSys

Improved Energy Saving Features

Power Consumption Reduced Further with the Introduction of a DC Motor

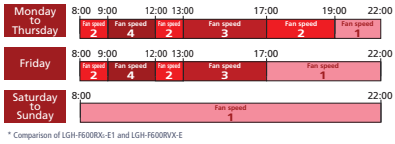
A high-efficiency DC motor has been adopted. Compared to models with an AC motor, power consumption is reduced. The graph*1 on the right shows a comparison of power consumption between the current and previous models.

*1 Current model: Fan speed 4, Previous model: Extra high, compared at 230V

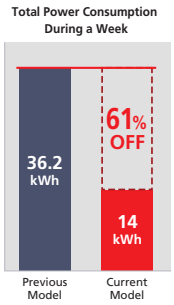


Previous Model

Current Model



* Comparison of LGH-F600RXs-E1 and LGH-F600RVX-E



Weekly Timer

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

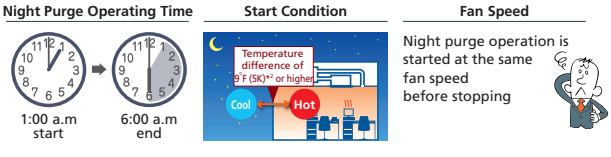
Night Purge Function

During the summer, the Night Purge function draws cooler outside air into the room at night. This energy conservation mode reduces the load when the air conditioning starts the next morning. With previous models, the Night Purge function was operated under initially fixed conditions. With the current models, the start condition, airflow, and operation time for the Night Purge operation can be set* as desired to flexibly answer to the operating environment requests that vary with each customer.

*1 Settings can only be made using the PZ-61DR

*2 Difference 1K (Kelvin) = 1° C = 1.8° F

Previous Model



Current Model

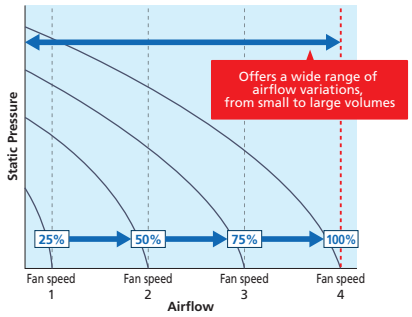
Operating Time	Start Condition (inside-outside temperature difference)	Fan speed
Can be set to any desired time	Can be set between 0°F (0K (Kelvin)) and 12.6°F (7K)*2 (1.8°F (1K) increments)	4 fan speeds to select from (1 to 4)

*1 Settings can only be made using the PZ-61DR *2 Difference 1K (Kelvin) = 1°C = 1.8°F

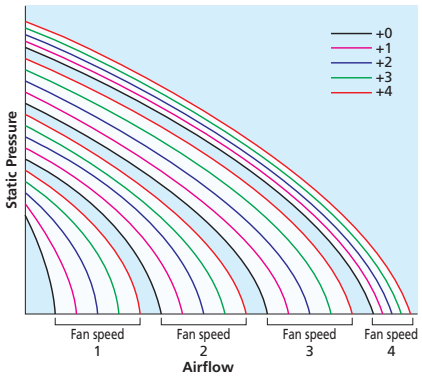
Enhanced Control

Lossnay models are equipped with a treated paper core to recover total energy (sensible and latent heat) from the outgoing stale air to pre-warm (or pre-cool) incoming fresh air. This total energy recovery allows buildings to maximize efficiencies while maintaining CO_2 and humidity levels in the indoor air.

Characteristic Curves



P-Q Curve Image



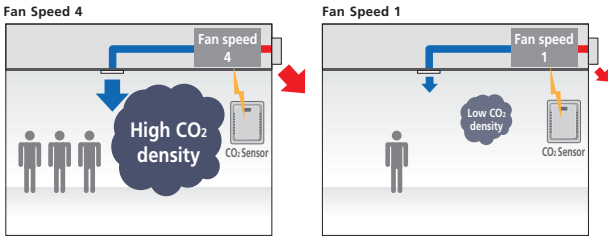
Fan Speed Adjustment

The default fan speed values can be adjusted slightly. Use the PZ-62DR remote controller to set the speed as desired.

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

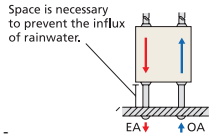
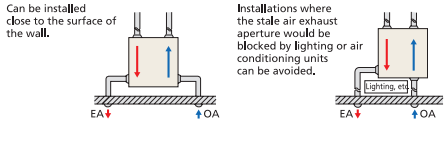
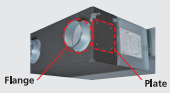
Airflow Control by CO_2 Sensor

With previous models, airflow was only able to be controlled according to the three settings of “High,” “Low,” and “Extra-low,” but the current models offer four fan speeds, with each speed having a range setting of 25, 50, 75 and 100%, to allow much finer airflow control. When used in combination with an external CO2 sensor or timer function, airflow can be controlled even more precisely to realize better performance and reduce power consumption.



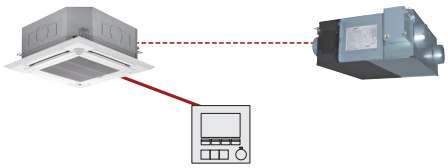
Duct Connection in Two Different Directions (OA & EA sides)

Ducts can be connected to the outdoor vent in two different directions, thanks to collars and aperture plates that can be interchangeably placed in two different positions. This flexibility allows for installations close to the surface of a wall and helps avoid blockage of the stale air exhaust vent. This makes both planning and installation much simpler.

Standard Installation	Installation with Duct Direction Changed
	
	 Remove the flange (factory-standard direction) and the side panel plate and switch their places. They are both equipped with screw stoppers to make the switch extremely simple. The direction of the ducts can only be changed on the outside (OA and EA). It cannot be changed on the inside (SA and RA).

Greater Airflow Range Settings

Lossnay units can be operated by using Mr. Slim's or CITY MULTI®'s remote controllers. When the low speed is selected on the remote controller, the previous Lossnay unit could operate at one fan speed only, but the current model allows you to select from two fan speeds; fan speed 1 or 2.

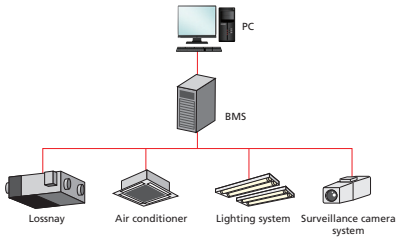


		Previous Model	Current Model
Mr. Slim City Multi	Low	Low	Fan Speed 1 or 2*
	High	High or Extra High	Fan Speed 3 or 4*

*Factory Setting

Improved 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)

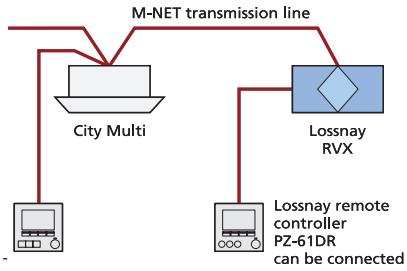


Input Voltage (VDC)	Fan Speed	Fan Speed Change from Remote Controller
0 - 1.0	-	Available
1.5 - 2.5	1	Not Available
3.5 - 4.5	2	Not Available
5.5 - 7.0	3	Not Available
8.5 - 10	4	Not Available

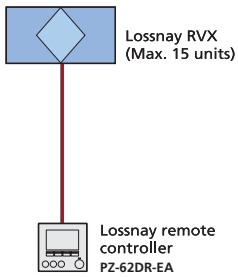
Simple Control Setting with PZ-62DR-EA Remote Controller

Interlocked with Air Conditioners

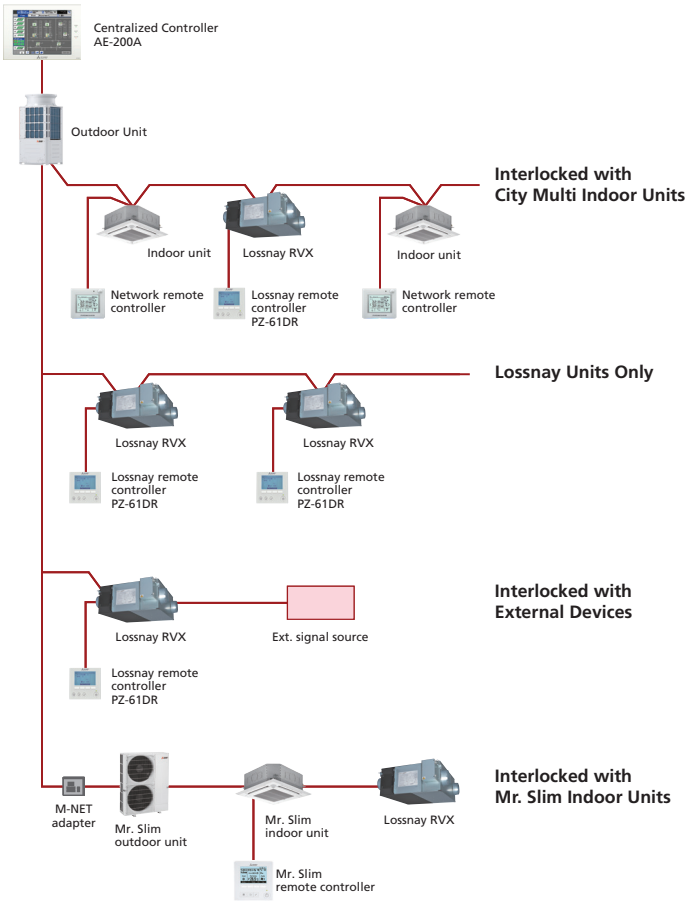
Interlocked with City Multi



Lossnay Units Only



Centralized Controller System



LGH-F Specifications

Specifications			System					
Unit Type			LGH-F300RVX2-E	LGH-F380RVX2-E	LGH-F470RVX2-E	LGH-F600RVX2-E	LGH-F940RVX2-E	LGH-F1200RVX2-E
Capacity		CFM [m³/h]	300 [510]	380 [646]	470 [799]	600 [1,019]	940 [1,597]	1,200 [2,039]
Power source			208/230, 1, 60					
Power Consumption		kW	0.111 - 0.235	0.165 - 0.34	0.22 - 0.425	0.27 - 0.515	0.44 - 0.85	0.54 - 1.03
Current		A	0.017/0.048	0.02/0.065	0.047/0.11	0.047/0.12	0.094/0.22	0.094/0.24
Starting Current		A	6.1				12.2	
MCA		A	4.3	3.9	5.1	5.2	10.1	10.4
Maximum Overcurrent Protection (MOCP)		A	15					
Fan	Air Volume	CFM [m³/h]	300- 225- 150- 127 [510- 382- 225- 75	380- 285- 190- 161 [646- 484- 323- 95	470- 353- 235- 200 [799- 599- 399- 118	600- 450- 300- 255 [1,019- 765- 510- 150	940- 705- 470- 399 [1,597- 1,198- 799- 235	1,200- 900- 600- 510 [2,039- 1,529- 1,019- 300
	Type x quantity		8-3/4 In. diameter centrifugal fan		9-5/8 In. diameter centrifugal fan		8-3/4 In. diameter centrifugal fan	9-5/8 In. diameter centrifugal fan
	External Static pressure	in.WG	0.06–0.25–0.56–1.0	0.06–0.22–0.48–0.86	0.06–0.25–0.56–1.0	0.05–0.22–0.48–0.86	0.06–0.25–0.56–1.0	0.05–0.22–0.48–0.86
	Motor type		EC Motor					
Exchange Efficiency	Temperature	%	65.5-70-76-83	65-69.5-75-82	69-73-77.5-84.5	67-73-76.5-81	69-73-77.5-84.5	67-73-76.5-81
	Enthalpy 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	50.0-56.5- 64.5- 71.0	51.0-57.0- 64.0- 72.0	50.0-56.5- 64.5- 71.0
	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	64.0-68.5-74.5-80.0	64.0-69.0-75.0-83.0	64.0-68.5-74.5-80.0
External finish			Galvanized steel sheet					
External Dimensions		In. [mm]	41-7/8 x 41-3/16 x 13-1/32 [1,063 x 1,046 x 331]	39-13/32 x 42 x 15-29/32 [1,001 x 1,066 x 404]	41-3/8 x 51-5/16 x 15-29/32 [1,051 x 1,302 x 404]	50-5/16 x 51-5/16 x 15-29/32 [1,278 x 1,302 x 404]	41-9/64 x 49-15/16 x 31-13/16 [1,045 x 1,267 x 808]	50-1/8 x 49-15/16 x 31-13/16 [1,272 x 1,267 x 808]
Net weight		Lbs [kg]	75 [34]	90 [41]	110 [50]	123 [56]	225 [102]	251 [114]
Energy Transfer Mechanism			Lossnay® Core					
Heat Exchange Material			Partition, spacing plate-cellulose fiber membrane					
Heat Exchange System			Air-to-air total heat (sensible heat + latent heat) exchange, no moving parts					
Blower Type			8-3/4 In. diameter centrifugal fan		9-5/8 In. diameter centrifugal fan		8-3/4 In. diameter centrifugal fan	9-5/8 In. diameter centrifugal fan
Drainpipe Dimension (Two)		(H x W x L) In.	[]					
Entering Air Temperature Operation Range		°F [°C]	14 to 104 [-10 to 40]					
Sound pressure level		dB(A)	37.0–31.0–22.0–18.0	38.0–31.0–24.0–19.0	40.0–34.0–26.0–20.0	41.0–35.0–27.0–20.0	43.0–63.0–28.0–20.0	43.0–37.0–28.0–20.0

NOTES:
[1]Capacity indicates the maximum value at operation under the following condition.
Cooling: Indoor 91°F (32.7°C)DB/82°F (27.8°C)WB, Outdoor 91°F (32.7°C)DB. The set temperature of the remote controller is 63°F (17.2°C).
Heating: Indoor 32°F (0°C)DB/27°F (-2.9°C)WB, Outdoor 32°F (0°C)DB/27°F (-2.9°C)WB. The set temperature of the remote controller is 77°F (25°C).
[2]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 63°F (17.2°C)D.B. The fan speed automatically runs at a very low speed if the outdoor temperature is greater than 109°F (42.8°C)D.B.
[3]Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 59°F (15.0°C)D.B.
[4]If the airflow rate is over the usable range, dew drops can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface may occur.

- The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below 23°F (-5°C)).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake TYPE indoor units needs to be 30% or less of the connected outdoor unit capacity.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation. Please be careful when positioning indoor unit air OUTLET GRILLES, IE take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- See data book and technical service manual for more details and system restrictions.

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended

[1]Requires one filter set (two filters included per set)

NOTES:
Cooling / Heating capacities indicated at the maximum when operating under the following conditions:

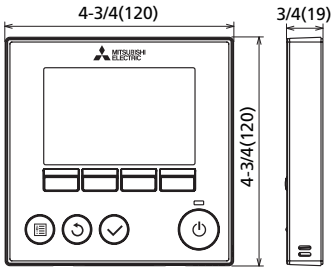
Cooling | Entering Indoor Unit:	87°F (31°C) DB / 80°F (27°C) WB
Cooling | Outdoor Unit:	87°F (31°C) DB
Heating | Entering Indoor Unit:	32°F (0°C) DB
Heating | Outdoor Unit:	32°F (0°C) DB / 28°F (-2°C) WB

**If equipment is being used in a seacoast application, a coil coating to protect against saltwater corrosion is recommended.

Lossnay® Controllers

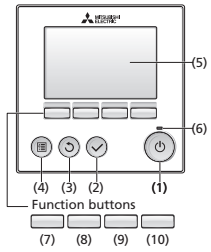
The remote controller provides a wide range of functions and features in addition to the main functions described below, such as sophisticated energy-saving control and an easy user interface.

LOSSNAY Remote Controller (PZ-62DR-EA)



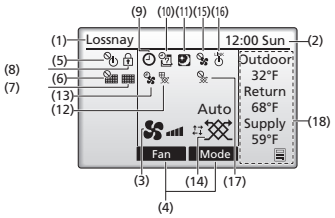
Unit: inch (mm)

Operation Section



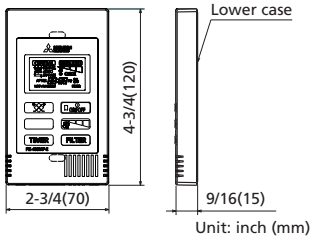
(1) Press to turn ON/OFF the Lossnay unit.
(2) Press to save the setting.
(3) Press to return to the previous screen.
(4) Press to bring up the Main menu.
(5) Operation settings will appear.
When the backlight is off, pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen.
(6) This lamp lights up in green while the unit is in operation. It blinks while the remote controller is starting up or when there is an error.
(7) Main menu: Press to move the cursor down.
(8) Main display: Press to change the fan speed.
Main menu: Press to move the cursor up.
(9) Main display: Press to change the ventilation mode.
Main menu: Press to go to the previous page.
(10) Main menu: Press to go to the next page.

Display Section

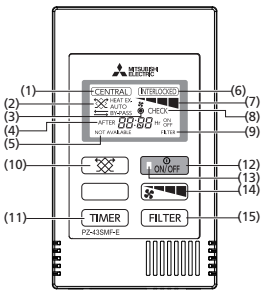


(1) Lossnay is always displayed.
(2) Current time appears here.
(3) Fan speed setting appears here.
(4) Functions of the corresponding buttons appear here.
(5) Appears when the ON/OFF operation is centrally controlled.
(6) Appears when the filter reset function is centrally controlled.
(7) Indicates when the filter and/or Lossnay core needs maintenance.
(8) Appears when the buttons are locked and/or a fan speed is skipped.
(9) Appears when the On/Off timer or Auto-off timer function is enabled.
(10) Appears when the Weekly timer is enabled.
(11) Appears when the night-purge function is available.
(12) Appears when performing operation to protect the equipment.
(13) Appears when performing the power supply/exhaust function or the delay operation at the start of operation.
(14) Indicates the ventilation mode setting.
(15) Appears when external fan speed operation.
(16) Appears when operation is interlocked with the external unit.
(17) Appears when external ventilation mode operation.
(18) Displays the outdoor temperature, return temperature, and supply temperature (calculated value).

LOSSNAY Remote Controller (PZ-43SMF-E)



Unit: inch (mm)



(1) Displayed during remote operation is prohibited by the centralized control unit, etc.
(2) Displays the ventilation mode status.

Heat exchange	HEAT EX.
By-pass	BY-PASS
Automatic (HEAT EX./BY-PASS)	HEAT EX. AUTO or AUTO BY-PASS

(3) Displayed while the Lossnay remote controller is powered on.
(4) Displays on-timer or off-timer duration.
(5) When a button is pressed for a function which the Lossnay unit cannot perform, this display flashes concurrently with the display of the function.
(6) Displayed when the Lossnay starts off by interlocked indoor unit or external signal.
(7) Displays the selected fan speed.
(8) Displayed together with the malfunctioning unit (3 digits) and an error code (4 digits).
(9) Displayed when the accumulated operating time reaches the time set for filter maintenance.
(10) Used to select the ventilation mode among heat exchange, by-pass or automatic.
(11) Increasing 0:30 by pressing it once. Keep pressing the button for fast-forwarding.
(12) Switch for start and stop.
(13) On during operation. Flashes when a malfunction occurs.
(14) Used to select the fan speed either “Low” or “High”.

Low → High

(15) Press twice to reset the filter sign display.

Remote Controller Settings and Functions

The remote controller provides a wide range of functions and features in addition to the main functions described below, such as sophisticated energy-saving control and easy user interface.

Function (Communicating Mode)	PZ-62DR-EA	PZ-43SMF-E
Fan Speed Selection	4 fan speeds	2 of 4 fan speeds
Ventilation Mode Selection	Energy recovery / Bypass / Auto	Energy recovery / Bypass / Auto
Night-purge Setting (Time and Fan Speed)	Yes	No
Function Setting from RC	Yes	No
Bypass Temperature Free Setting	Yes	No
Heater-ON Temperature Free Setting	Yes	No
Fan Power Up after Installation	Yes	No
0 - 10 VDC External Input	Yes	Yes
ON/OFF Timer	Yes	Yes
Auto-off Timer	Yes	No
Weekly Timer	Yes	No
Operation Restrictions (ON/OFF, Ventilation Mode, Fan Speed)	Yes	No
Operation Restrictions (Fan Speed Skip Setting)	Yes	No
Screen Contrast Adjustment	Yes	No
Language Section	Yes (8 Languages*)	No (English Only)
Initializing	Yes	No
Filter Cleaning Sign	Yes	Yes
Lossnay® Core Cleaning Sign	Yes	No
Error Indication	Yes	Yes
Error History	Yes	No
OA/RA/SA Temperature Display	Yes	No

*The 8 languages are English, German, French, Spanish, Italian, Portuguese, Russian and Swedish.

Lossnay® Filters

Standard Filters

PZ-50RF$_8$-E, PZ-80RF$_8$-E, and PZ-100RF$_8$-E

Filter					Lossnay	
Filter Material	Classification		Model Name	Included Piece/Set	Applicapable Model	Required Filter Pieces
	ISO 16890	EN779 (2021)				
Non-woven Fabrics	Coarse 35%	G3	PZ-50RF$_8$-E	4	LGH-F300RVX-E	4
			PZ-80RF$_8$-E	4	LGH-F470RVX-E	4
			PZ-100RF$_8$-E	4	LGH-F600RVX-E	4
					LGH-F1200RVX-E	8

High-Efficiency Filters (Optional)

PZ-50RFM-E, PZ-80RFM-E, and PZ-100RFM-E

Filter					Lossnay	
Filter Material	Classification		Model Name	Included Piece/Set	Applicapable Model	Required Filter Pieces
	ISO 16890	EN779 (2021)				
Synthetic Fiber	ePM10 75%	M6	PZ-50RFM-E	2	LGH-F300RVX-E	2
			PZ-80RFM-E	2	LGH-F470RVX-E	2
			PZ-100RFM-E	2	LGH-F600RVX-E	2
					LGH-F1200RVX-E	4

Advanced High-Efficiency Filters (Optional)

PZ-50RFP$_2$-E, PZ-80RFP$_2$-E, and PZ-100RFP$_2$-E

Filter					Lossnay	
Filter Material	Classification		Model Name	Included Piece/Set	Applicapable Model	Required Filter Pieces
	ISO 16890	ASHRAE52.2 (2017)				
Synthetic Fiber	ePM1 75% ePM$_{2.5}$ 80% ePM$_{10}$ 95%	MERV 16	PZ-50RFM-E	2	LGH-F300RVX-E	2
			PZ-80RFM-E	2	LGH-F470RVX-E	2
			PZ-100RFM-E	2	LGH-F600RVX-E	2
					LGH-F1200RVX-E	4

Controllers

Control the comfort of your building and easily monitor energy usage and system status.

CITY MULTI® Controllers

Zoned Controller

Simple Ductless Wired Controller
PAC-SDW01RC-1

Touch MA Controller
PAR-CT01MAU-SB

Deluxe MA Controller
PAR-41MAAU

Simple MA Controller
PAR-YT53CRAU-J

Smart ME Controller
PAR-U01MEDU-K

Wireless Controller

kumo touch™ Wirless Controller
MHK2

Handheld Controller
PAR-FL32MA-E

Centralized Controller

Touch Screen Centralized Controller
AE-200A

Touch Screen Expansion Controller
AE-50A

Browser-Capable Centralized Controller
EW-50A

Touch Screen Centralized Controller
TC-24B-J

Lossnay® Controller

Lossnay® Remote Controller
PZ-62DR-EA

Custom Solution

PI Control Board
PAC-YG60MCA-J

AI Control Board
PAC-YG63MCA-J

DIDO Control Board
PAC-YG66DCA-J

Diamond Controls™ Building Management System
DC-8000

Function Table

Model	Local Remote Controller *5					
	PAR-CT01MAU	PAR-41MAAU	PAR-U01MEDU	PAC-YT53CRAU	PAR-FL32MA	PAR-FL32MA
Controllable Groups/Indoors *4	1/16	1/16	1/16	1/16	1/16	1/1
Operation						
ON/OFF	○	○	○	○	○	○
Mode (Cool/Heat/Dry/Fan/Auto)	○	○	○	○	○	○
Mode (Setback) *7	○	○	○	○	×	○
Temperature Setting	○	○	○	○	○	○
Dual Set Point *8	○	○	○	○	×	
Local Permit/Prohibit	×	×	×	×	×	×
Fan Speed	○	○	○	○	○	○
Air Flow Direction	○	○	○	○	○	○
Status Monitoring						
ON/OFF	○	○	○	○	○	○
Mode (Cool/Heat/Dry/Fan/Auto)	○	○	○	○	○	○
Local Permit/Prohibit	○	○	○	○	○	×
Fan Speed	○	○	○	○	○	○
Air Flow Direction	○	○	○	○	○	○
Indoor Temperature	○	○	○	○	×	×
Filter Sign	○	○	○	×	×	×
Error Flashing	○	○	○	○	○	×
Error Code	○	○	○	○	×	×
Operation Hour	×	×	×	×	×	×
Scheduling						
One Day	○	○	○	×	×	×
ON/OFF Timers Per Day	1	1	1	×	1/1	1
Weekly	○	○	○	×	×	×
ON/OFF Timers Per Week	8 x 7	8 x 7	8 x 7	×	×	×
Annual	×	×	×	×	×	×
Optimized Start-up	×	×/×	×	×	×	×
Auto-OFF Timer	○	○	○	×	×	×
Minute Timer Setting Unit	5	5	5	×	10	10
Recording						
Error Log	○	○	○	×	×	×
Daily/Monthly Report	×	×	×	×	×	×
Electricity Charge	×	×	×	×	×	×
Energy Management Data	×	×	×	×	×	×
Other						
Temp-set Limitation by Local R/C	○	○	○	○	×	×
Temp-set Limitation by System Controller*6	○*2	○*2	○	○*2	×	×
Operation Lock	○	○	○	○	×	×
Night Setback	×	×	×	×	×	×
Sliding Temperature Control	×	×	×	×	×	×
Management (Group/Interlocked)						
Ventilation Interlock	×/○	×/○	×/○	×/○	×	×
Group Setting	○*1	○*1	○	○*1	×	×
Block Setting	×	×	×	×	×	×
Review of Electricity Charge	×	×	×	×	×	×
Operating on Lossnay Interlocked (Group/Interlocked)						
ON/OFF	×/○	×/○	×/○	×/○	×/○*3	×/○*3
Fan Speed	×/○	×/○	×/○	×	×	×
Ventilation Mode	×/×	×/×	×	×	×	×
Status Monitoring on Lossnay Interlocked (Group/Interlocked)						
ON/OFF	×/○	×/○	×/○	×/○	×	×
Fan Speed	×/○	×/○	×/○	×	×	×
Ventilation Mode	×	×	×	×	×	×

○ = Each Group × = Not Available (Not Used)

1. Group setting via wiring between Indoor units with cross-over cable; 2. This function can only be set on the ME remote controller. This function cannot be used with the MA/Simple MA remote controller. (However, the validity of this function with the MA/Simple MA remote controller *3. Interlock is set from system controllers (Except PAC-YT40ANRA) or local remote controllers.

*4. The maximum number of controllable units decreases depending on the indoor unit model. *5. For indoor use only.
*6. No license is required for the TC-24B.*7. This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group feature said function.

Model	System Controller *5							
	PAC-YT40ANRA	TC-24B	AE-200A/AE-50A		AE-200A + AE-50A/EW-50A		EW-50A	
Controllable Groups/Indoors *4	16/50	24/24	50/50		200/200		50/50	
			AE-200A	Browser	AE-200A	Browser	EW-50A	Browser
Operation								
ON/OFF	◎	◎	◎■	◎■	◎■	◎■	▲	◎■
Mode (Cool/Heat/Dry/Fan/Auto)	×	◎	◎■	◎■	◎■	◎■	×	◎■
Mode (Setback) *7	×	◎	◎■	◎■	◎■	◎■	×	◎■
Temperature Setting	×	◎	◎■	◎■	◎■	◎■	×	◎■
Dual Set Point *8	○*9	◎	◎■	◎■	◎■	◎■	×	◎■
Local Permit/Prohibit	×	◎	◎■	◎■	◎■	◎■	×	◎■
Fan Speed	×	◎	◎■	◎■	◎■	◎■	×	◎■
Air Flow Direction	×	◎	◎■	◎■	◎■	◎■	×	◎■
Status Monitoring								
ON/OFF	◎	◎	◎	○	◎	○	▲	○
Mode (Cool/Heat/Dry/Fan/Auto)	×	○	○	○	○	○	×	○
Temperature Setting	×	○	○	○	○	○	×	○
Local Permit/Prohibit	○	○	○	○	○	○	×	○
Fan Speed	×	○	○	○	○	○	×	○
Air Flow Direction	×	○	○	○	○	○	×	○
Indoor Temperature	×	○	○	○	○	○	×	○
Filter Sign	×	○	○	○	○	○	×	○
Error Flashing	○	◎	○	○	○	○	▲	○
Error Code	○	○	○	○	○	○	×	○
Operation Hour	×	×	×	×	×	×	×	×
Scheduling								
One Day	×	○	◎■	◎■	◎■	◎■	×	◎■
ON/OFF Timers Per Day	×	16	24	24	24	24	×	24
Weekly	×	○	◎■	◎■	◎■	◎■	×	◎■
ON/OFF Timers Per Week	×	16 x 7	24 x 7	24 x 7	24 x 7	24 x 7	×	24 x 7
Annual	×	×	◎■	◎■	◎■	◎■	×	◎■
Optimized Start-up	×	×	○	○	○	○	×	○
Auto-OFF Timer	×	×	×	×	×	×	×	×
Minute Timer Setting Unit	×	5	1	1	1	1	×	1
Recording								
Error Log	×	○	○	○	○	○	N/A	○
Daily/Monthly Report	×	×	×	×	×	×	×	×
Electricity Charge	×	×	×	×	×	×	×	×
Energy Management Data	×	×	×	●	×	●	×	●
Other								
Temp-set Limitation by Local R/C	×	×	×	×	×	×	×	×
Temp-set Limitation by System Controller*6	×	○	×	○*1*3	×	○*1*3	×	○*1*3
Operation Lock	×	◎	×	×	×	×	×	×
Night Setback	×	×	○	○*1	○	○*1	×	○*1
Sliding Temperature Control	×	×	○	○*1	○	○*1	×	○*1
Management (Group/Interlocked)								
Ventilation Interlock	○	○	○	○/○*1	○	○/○*1	×	○/○*1
Group Setting	○	○	○	○*1	○	○*1	×	○*1
Block Setting	×	×	○	○*1	○	○*1	×	○*1
Review of Electricity Charge	×	×	×	×	×	×	×	×
Operating on Lossnay Interlocked (Group/Interlocked)								
ON/OFF	◎/◎*2	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	▲/▲	◎/◎
Fan Speed	×	◎/◎	◎/◎	◎/◎	◎/◎	◎/◎	×/×	◎/◎
Ventilation Mode	×	◎/×	◎/×	◎/×	◎/×	◎/×	×/×	◎/×
Status Monitoring on Lossnay Interlocked (Group/Interlocked)								
ON/OFF	×	○/○	◎/◎	◎/◎	◎/◎	◎/◎	▲/▲	◎/◎
Fan Speed	×	○/○	○/○	○/○	○/○	○/○	×/×	○/○
Ventilation Mode	×	○/×	○/×	○/×	○/×	○/×	×/×	○/×

○ = Each Group ◎ = Each Group/Batched ● = AE-200A/AE-50A/EW-50A license registration possible × = Not Available (Not Used) ▲ = Batched Handling (For Maintenance) ■ = Block

1. Group setting via wiring between Indoor units with cross-over cable; 2. This function can only be set on the ME remote controller. This function cannot be used with the MA/Simple MA remote controller. (However, the validity of this function with the MA/Simple MA remote controller *3. Interlock is set from system controllers (Except PAC-YT40ANRA) or local remote controllers.

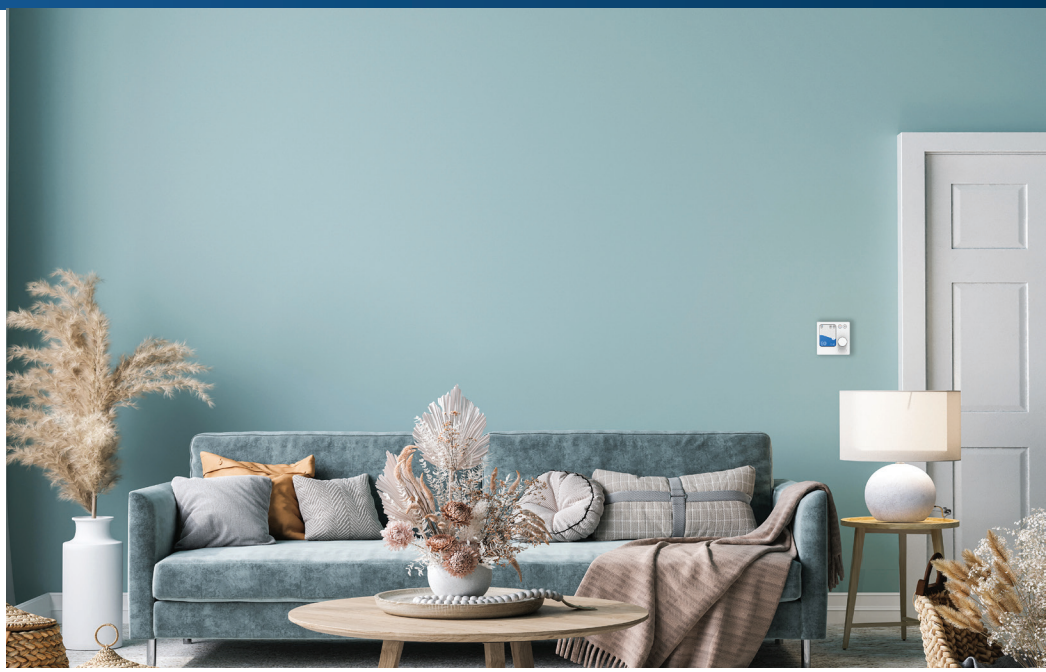
*4. The maximum number of controllable units decreases depending on the indoor unit model. *5. For indoor use only. *6. No license is required for the TC-24B. *7. This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group feature said function.

Simple Ductless Wired

PAC-SDW01RC-1

The SDW remote controller provides customers with a low-cost, user-friendly solution for all ducted and ductless Mitsubishi Electric systems. Its intuitive interface and simple dial control allows users to easily navigate through both basic and advanced system settings. The CN105 adapter connects to the wall plate using standard 18/4 AWG solid core wire, making the SDW a perfect choice for swapping out existing controllers and thermostats.

- Temperature and humidity sensing
- Compatible with standard thermostat wire
- Flexible scheduling
- Humidity management



Simple Ductless Wired Functions

Item	Description
Wired Connection	Wired connection to CN105 with new adapter
Auto Dry	Auto Dry function to help regulate humidity in the space
Screen	Colored screen with adjustable brightness
Scheduling	7-day scheduling with customizable presets - Residential presets: Comfort, Away, Sleep - Commercial presets: Morning, Midday, Evening, Night
Lockout functions	Multiple lockout functions: - Child Lock: No settings can be changed - Comfort Lock: Only temperature can be adjusted - ISU Lock: Individual settings can be locked
Set Point	Adjustable min/max set point limits for Cool, Heat, and Auto
Error Codes	Displays and records error codes with written descriptions
Temperature and humidity	Room temperature and humidity offset for unique applications
Proximity sensor	Proximity sensor to wake controller screen when walking by
Mode and fan	Mode and Fan button for quick changes Image: Auto Mode Cooling Image: Heat Mode • Control one indoor unit at a time (1:1 only, no group control)
Configuration	Configure advanced indoor unit and controller settings - Function Codes 1-28 for advanced indoor unit settings - ISU options 134-200 for advanced controller settings
F° or C°	Supports both Fahrenheit and Celsius
Clock	Time display with a 12 or 24-hour clock
Control indoor units	Control all standard indoor unit functions: Operation modes: Auto, Cool, Heat, Dry, Fan, Off Temperature set point (dual set points for Auto) Fan speed Airflow direction Temperature set point range limits
Set Point ranges	Set point ranges vary based on the indoor unit model type
Compatibility	Compatible with all current indoor unit models: - All M-Series - - All P-Series All CITY MULTI

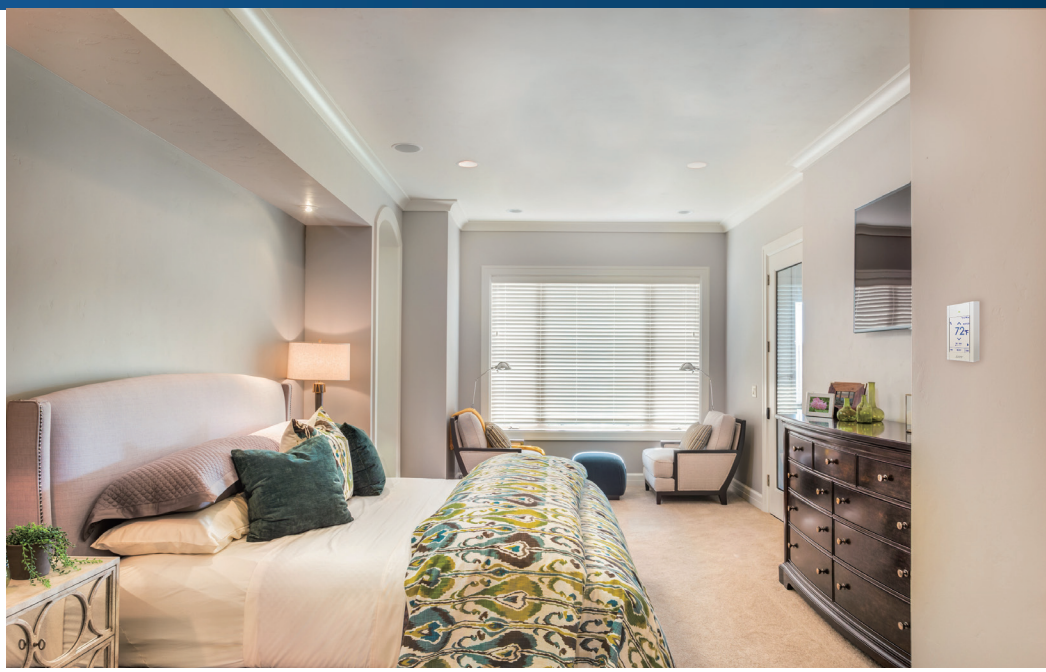

nevo
auto
fan
82
72
66
12:45

Touch MA

PAR-CT01MAU-SB

The Touch MA zone controller boasts a 180-color touchscreen user interface that is simple to use and allows for a personalized home screen with a company logo. This controller also features scheduling capabilities, multiple language support, and Bluetooth connectivity for local control using the MELRemo app.

- User-friendly, customizable full color touch panel display
- Ability to add a custom logo on the display
- Large icons with 180 color patterns
- Password protected
- Dimensions: 2-9/16"x 4-23/32"x 9/16"



Touch MA Functions

Item	Description	Operation	Display
ON/OFF	Switches between ON and OFF	○	○
Operation Mode Switching	Switches between Cool/Dry/Fan/Auto/Heat.	○	○
Hold	If the Hold function is enabled, the following functions will be prohibited.	○	○
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).	×	○
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.	○	×
Daylight Savings Time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the settings.	○	○
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.	○	○

○ = Each Group × = Not Available

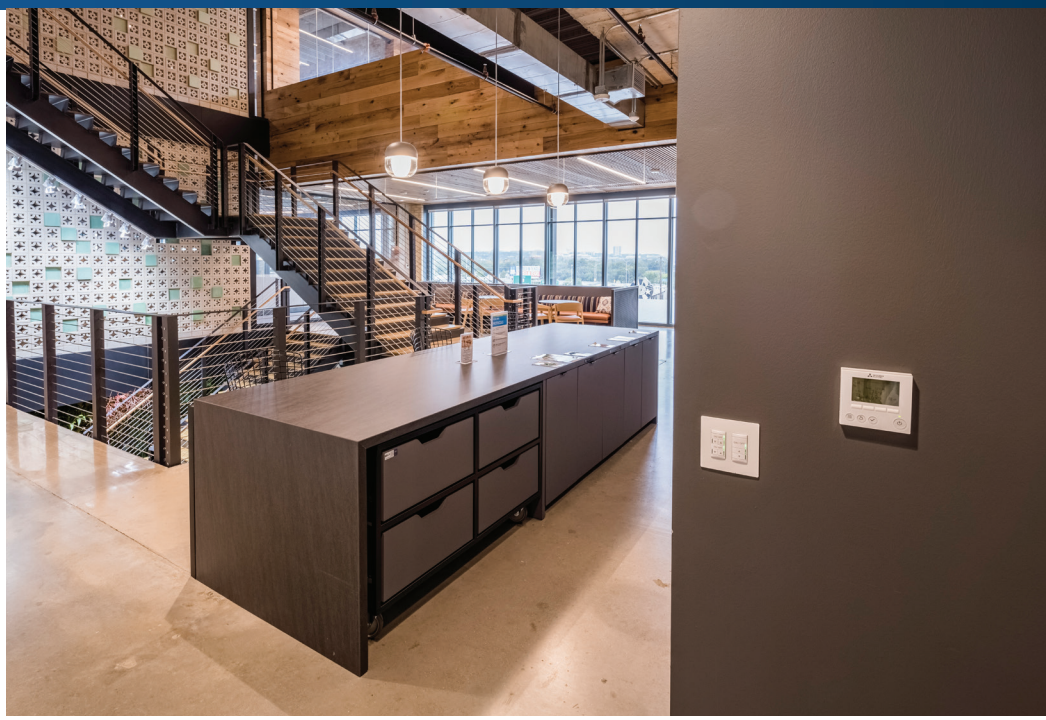

10:07AMThu
52°F
72°F
Set temp.
FAN
ON/OFF
HOLD
MITSUBISHI ELECTRIC

Deluxe MA

PAR-41MAAU

Use the Deluxe MA zone controller to adjust mode, fan speed, airflow, and many more advanced settings. Temperature sensing can be configured to read at the controller or the indoor unit. This controller also features scheduling capabilities and an easy-to-navigate screen.

- Controls up to 16 zones
- Large easy-to-see backlit LCD
- Interlock and control Lossnay units
- Operation modes: Auto, Cool, Heat, Dry, Fan
- Controls air direction (vane direction and ventilation)
- Dimensions: 4-3/4" x 3/4" x 4-3/4"
- Supports dual set point and setback functions



Deluxe MA Functions

Item	Description	Operation	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 enabled, 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.	○	○
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).	×	○
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.	○	×
Daylight Savings Time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the settings.	○	○

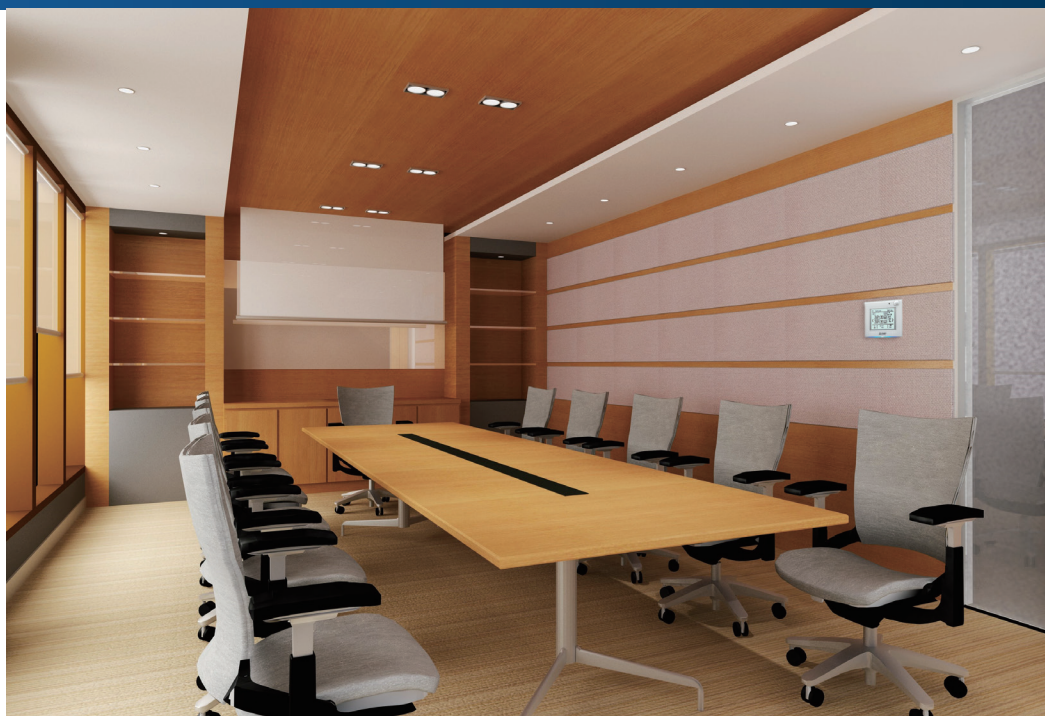
○ = Each Group × = Not Available

Smart ME

PAR-U01MEDU

The Smart ME controller is a remote designed to control Mitsubishi Electric equipment. It features four built-in sensors (temperature, humidity, occupancy, brightness), which enable an integrated control of the system.

- Intuitive backlit touch screen
- Group control up to 16 indoor units in a single zone
- Onboard temperature, humidity, occupancy, and brightness sensors
- Supports dual set point and setback functions
- Color glow status indicator LED bar
- Dimensions: 4-3/4" x 5-9/16" x 1"



Smart ME Functions

Item	Description	Operation	Display
ON/OFF	Switches between ON and OFF	○	○
Operation Mode Switching	Switches between Cool / Dry / Fan / Heat / Setback / Auto. Operation modes vary depending on the indoor unit model. Auto mode is 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 fan speed.* Available fan speeds vary depending on the model.	○	○
Air Flow Direction Setting	Changes airflow direction.* Available airflow directions vary depending on the model.	○	○
Allows/Disallows Local Operation	The following operation can be prohibited by 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.	×	○
Error Information	When an error occurs, an error code and the unit address appear. A contact number can be set to appear when an error occurs. (The above information needs to be entered in the Service menu.)	---	○
Schedule (Weekly timer)	Weekly ON/OFF times, operation mode, and set temperatures can be set. Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Timer	ON/OFF timer - Turns ON and OFF daily at a set time. Time can be set in 5-minute increments. It is also possible to set the ON time only or the OFF time only. Auto OFF Timer - Turns off the unit after a certain period of operation. Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Energy-save control during vacancy	When vacancy is detected by the occupancy sensor, the energy-save control assist function is activated. Four control types are available for selection: ON/OFF/Set temperature/Fan speed/Thermo-off. The brightness sensor can be used in conjunction with the occupancy sensor to detect the occupancy/vacancy status more accurately.	○	○

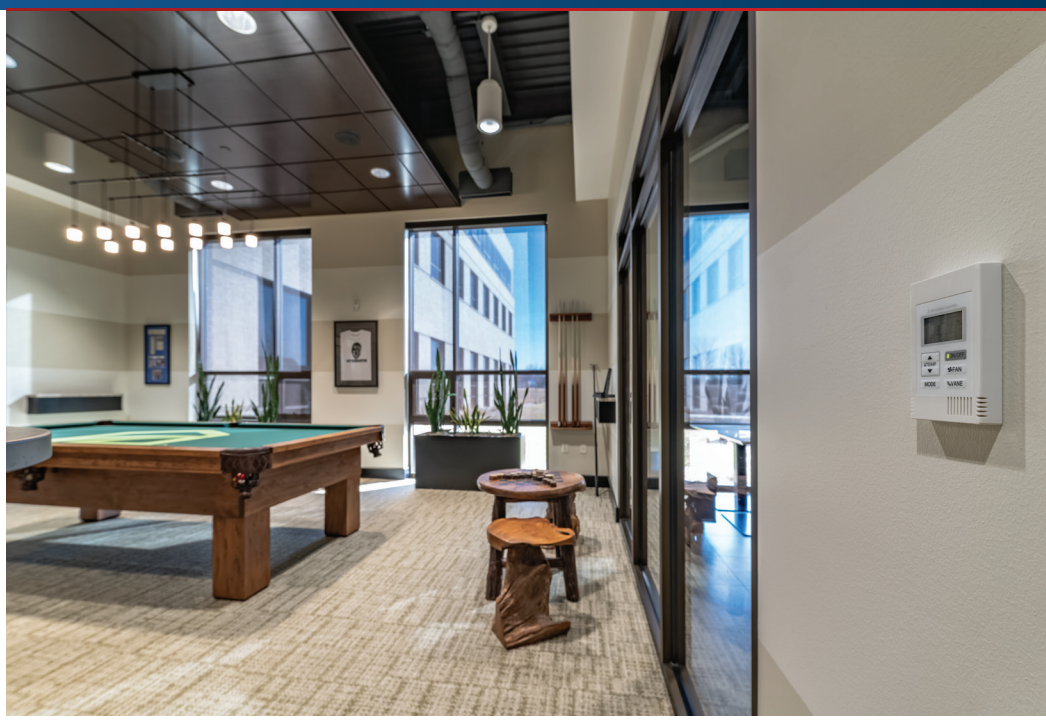
○ = Each Group × = Not Available

Simple MA

PAC-YT53CRAU (MA)

Use the Simple MA zone controller to adjust mode, fan speed, airflow, and more. Temperature sensing can be configured to read at the controller or the indoor unit. This controller permits group operation for up to 16 indoor units.

- Controls up to 16 zones
- Can be installed without making a hole in the wall
- Backlight for operation in dark places
- Users can change airflow direction (ceiling cassette and wall-mounted types)
- Dimensions: 2-3/4" x 9/16" x 4-3/4”



Simple MA Functions

Item	Description	Operation	Display
ON/OFF	Switches 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. When the Mr. SLIM indoor unit (A-control) is connected, interlocked operation of the LGH-R(V)X Type Lossnay unit is possible.	○	○
Set Temperature Range Limit	The preset temperature range can be restricted for each operation mode (COOL/HEAT/AUTO).	○	○

○ = Each Group × = Not Available □ = Each Unit


STAIRS

Centralized

AE-200A/AE-50A

AE-200A

The AE-200A is the Main Central Controller that operates and monitors up to 50 indoor units via its touchscreen or web browser. Fifty additional indoor units can be added to the network per each expansion controller (AE-50A or EW-50A). A single network, comprised of one central controller and three expansion controllers, can manage and monitor a maximum of 200 different indoor units.

AE-50A

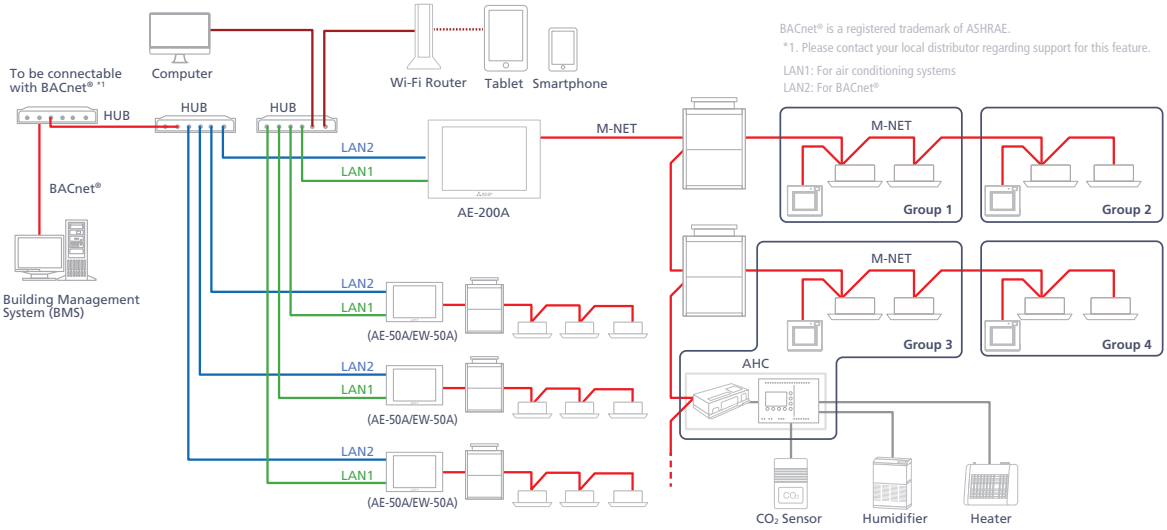
The AE-50A is the Expansion Controller that operates and monitors up to 50 indoor units via its touchscreen or a web browser when added to an AE-200 Main Central Controller network. A single network, comprised of one central controller and three expansion controllers, can manage and monitor a maximum of 200 different indoor units.

Centralized Controller Functions

Item	Description	Operation	Display
Controllable Number of Units	Up to 50 units/50 groups	○◎△●	○◎
ON/OFF	ON and OFF operation for the air conditioning units and general equipment. (PAC-YG66DCA is required to operate general equipment.)	○◎△●	○
Operation Mode	Switches between several operation modes depending on the air conditioning unit. Air conditioning unit: Cool/Dry/Auto(*)/Fan/Heat/Setback Lossnay® unit: Heat Recovery/Bypass/Auto Air To Water (PWFY) units : Heating, Heating ECO, Hot Water, Anti-freeze, Cooling * Auto mode is for CITY MULTI® R2 and WR2-Series only.	○◎△●	○
Temperature Setting	Changes the set temperature.* Set temperature range varies depending on the indoor unit model.	○◎△●	○
Fan Speed Setting	Models with 5 air flow speed settings: High/Mid-1/Mid-2/Low, Auto Models with 4 air flow speed settings: High/Mid-1/Mid-2/Low Models with 3 air flow speed settings: High/Mid/Low Models with 2 air flow speed settings: High/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 affected unit and the error code are displayed.	×	□◎
Test Run	This operates air conditioning units in test run mode.	○◎△●	○
Ventilation (Interlocked)	The ventilation unit (Lossnay) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○◎△●	○
External Input/Output	By using optional external input/output adapter (PAC-YG10HA-E) you can set and monitor the following: Input : By level signal : "Batch ON/OFF", "Batch emergency stop" By pulse signal : "Batch ON/OFF", "Enable/disable local remote controller" Output : "ON/OFF", "Error/Normal"	◎	◎
Energy Management	Bar Graph : Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily, and monthly. Line Graph : Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA and temp. from AHC.	×	□○●
Advanced HVAC Controller (AHC)	The status of AHC can only be monitored.	×	○
ME Remote Controller	The status of sensor on this controller can be monitored.	×	○
Smartphone/Tablet	The specified web browser on iOS and Android OS can monitor and operate the AE-200A/AE-50A/EW-50A.	○	○
Web Design	Web screen design for a user friendly interface.	○◎△●	○
Initial Setting Software	The initial setting can be configured without the connection of AE-200A/AE-50A/EW-50A.	×	×
Apportionment of Power Consumption	Apportionment of power consumption can be calculated on AE-200 without TG-2000A. *1	●	□●
BACnet® Communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL.	○	×

○ = Each Group × = Not Available ◎ = Group or Collective □ = Each Unit ● = Each Block △ = Each Floor

System Structure



EW-50A

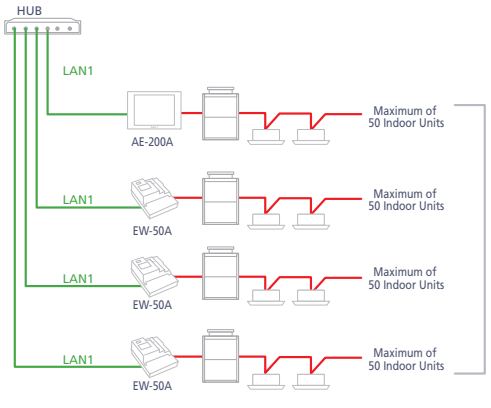
Browser Capable Centralized Controller

The EW-50A is the Expansion Controller that operates and monitors up to 50 indoor units via a web browser when added to an AE-200 Main Central Controller network. A single network, comprised of one central controller and three expansion controllers, can manage and monitor a maximum of 200 different indoor units.

- Can be used as an expansion controller for the AE-200A
- Up to 200 indoor units can be operated and monitored by connecting three EW-50A units to an AE-200A controller.
- Apportionment of electricity charges
- The power consumption of each air conditioner can be calculated with an AE-200A controller.

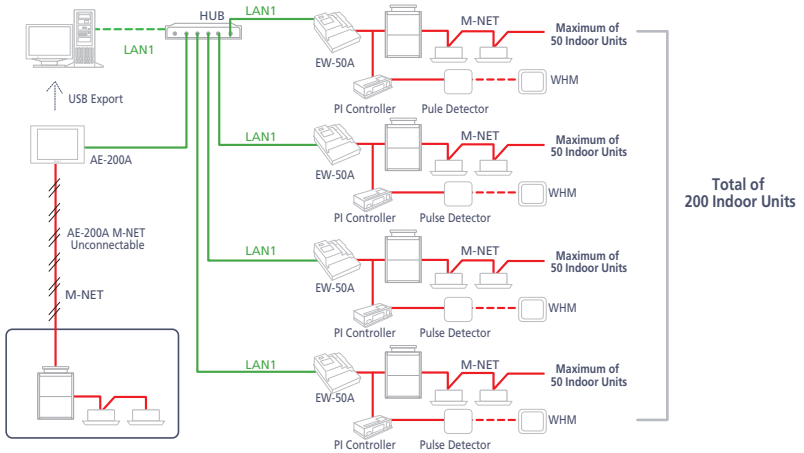
System Structure

Standard System



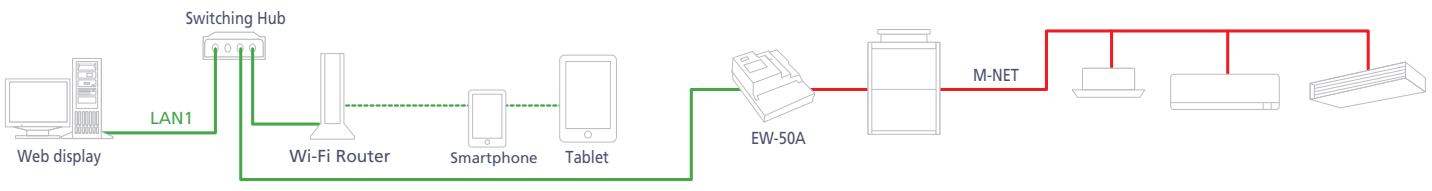
*1. Please contact your local distributor regarding support for this feature.

With Charge Setting



※Even when the number of indoor units is 50 or less, the system must consist of AE-200A and EW-50A/AE-50A.

System Configuration



Centralized Controller Functions

*Functions and specifications are subject to change.

Item	Description	Operation	Display
ON/OFF	Switches air conditioners and general equipment ON or OFF.	◎	○
Operation Mode	Switches to cool, dry, auto, fan, or heat operation. * Some modes are not available depending on the unit.	◎	○
Temperature Setting	Changes the set temperature.* Set temperature range varies depending on the indoor unit model.	◎	○
Set Temperature 1° F/0.5° C Increments	The temperature can be set and displayed in 1° F/0.5° C increments. * With some unit combinations, the temperature is set in 1° F/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 5 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 controllers 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 TC-24B, PAR-CT01MAU, PAR-U01MEDU, and PAC-YT53CR models.	◎	○
Room Temperature Display	Displays the suction temperature of the indoor unit.	---	○
Error Display	Displays the suction temperature of the indoor unit.	---	◎
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. * Optional part required.	---	◎
Ventilator Operation (Solo)	Group operation is 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 external I/O adapter (PAC-YG10HA) sold separately. Only one input can be selected from the above inputs.	□	---
External Output (Error Output, Operation Output)	Using the level signal, ON/OFF, and Error/Normal are output.* Requires an external power supply and external I/O adapter (PAC-YG10HA) sold separately.	---	□
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	○	○
Connectible Location	Centralized system transmission line: Connectible Recommended Indoor and outdoor transmission line: Connectible	---	---

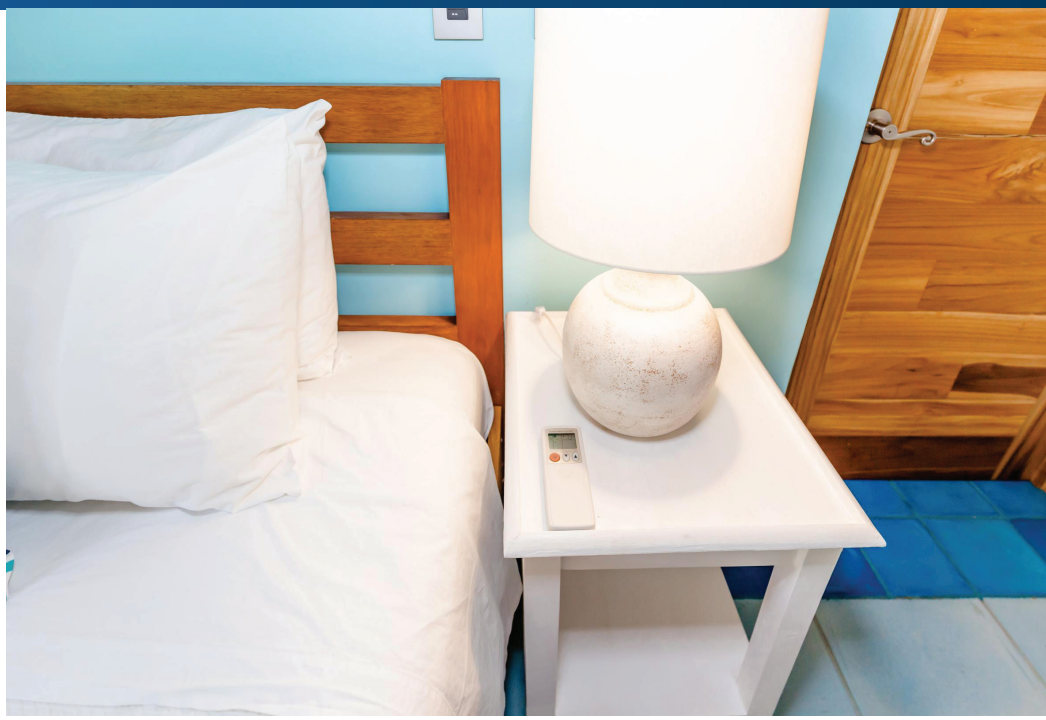
○ = By Group ◎ = By Group or multiple groups □ = Batch Only

Wireless

Remote Controllers

PAR-FL32MA-E

The Wireless MA Handheld Controller works with the MA Receiver (PAR-FA32MA-W, sold separately) to control CITY MULTI® and P-Series indoor units. Control group operation for up to 16 indoor units as a single lot. Use for easy wireless adjustment of the mode, fan speed, and airflow direction.

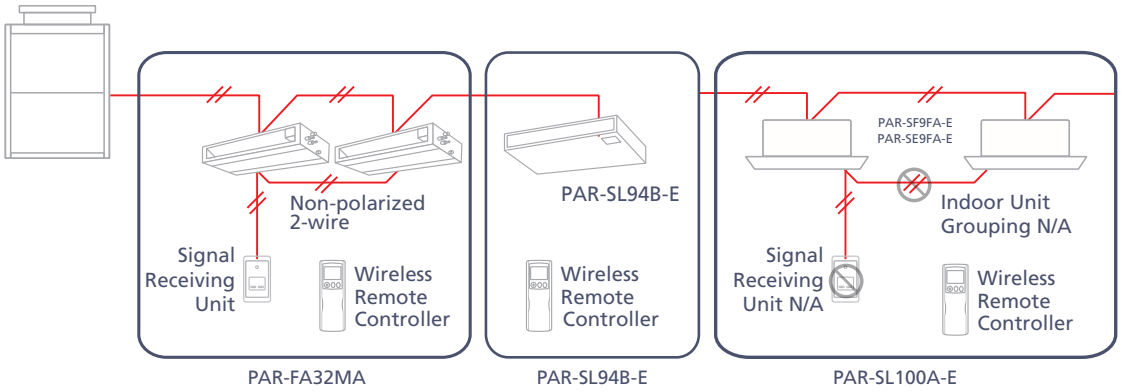


PAR-SL101A-E

(PLFY-NFMU only)

- Hand-held remote controller for use with PAR-SF9FA-E signal receiver
- Compatible with CITY MULTI® model PLFY-P**NFMU-E
- Requires one controller per indoor unit
- Weekly timer, one per day, ON/OFF
- Individual vane settings
- Dual set point control on PLFY Model
- Direct and Indirect Airflow function
  - For use with 3D i-see Sensor™
- Handheld remote functions can be used without setting the time.

System Configuration



Compatability Table

Indoor Unit Model	Receiver	Transmitter
PMFY-P NBMU-E **PFFY-P NEMU / NRMU-E** **PEFY-P NMSU-E** **PEFY-P NMAU-E3** **PEFY-PNMH(S)U-E(2)**	PAR-FA32MA	PAR-FL32MA

*1 PAR-SL94B-E includes a wireless remote controller.
*2 No receiver is required when using the panel with a signal receiver.
*3 PAR-SL100A-E is required to use the direct/indirect setting and individual vane setting.

Indoor Unit Model	Receiver	Transmitter
PCFY-P NKMU-E	PAR-FA32MA PAR-SL94B-E *1	PAR-FL32MA
PKFY-P NLMU-E	Built-in	
PKFY-P NKMU-E2		
PLFY-(E)P NEMU-E(1)	PAR-SR4LU-E *2	
PLFY-P NFMU-E	PAR-FA32MA *2	PAR-FL32MA*3
	PAR-SF9FA-E *2	PAR-SL100A-E

Wireless Controller Functions

Item	Description	Operation	Display
ON/OFF	Switches between ON and OFF	○	○
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.	○	○
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).*1 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.	○	○
Ventilation Equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay. The Lossnay will run in interlock with the operation of the indoor unit. *2 The fan rate and mode cannot be changed.	○	○

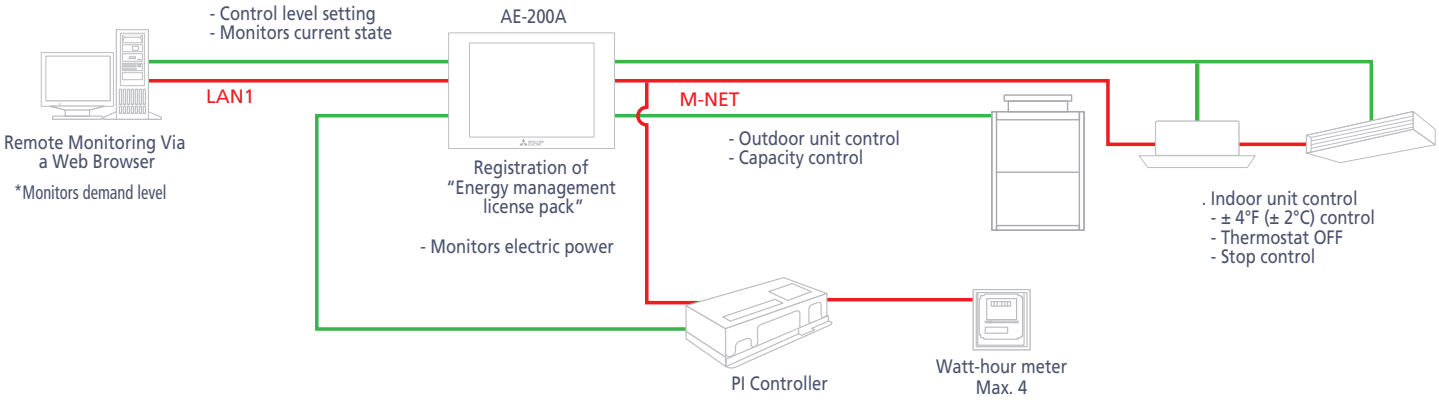
○ = Each Group ✕ = Not Available

PI Controller

PAC-YG60MCA

The PAC-YG60MCA Pulse Input (PI) Controller makes it possible to perform energy-saving and allocation initiatives. A maximum of four (4) measurement meters (WHM, gas meter, water meter, and calorie meter) can be connected to the PI Controller and trended within the Centralized Controller. (Note: 24VDC power needs to be provided on-site.) The PI controller counts pulses from a power meter, gas meter, water meter, and calorie meter. 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.

System Structure

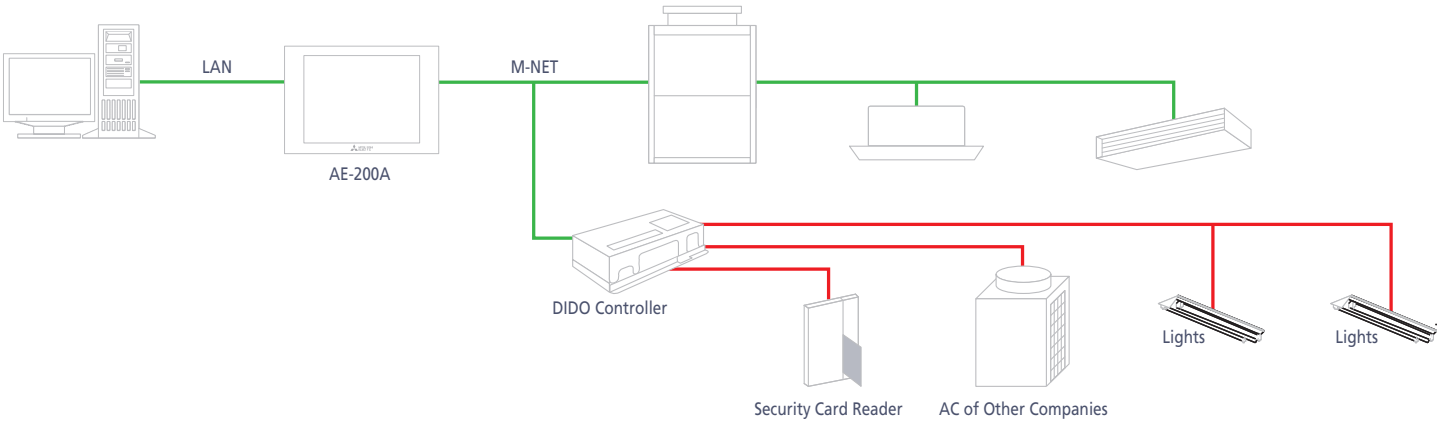


DIDO Controller

PAC-YG66DCA

The DIDO controller is used in combination with the AE-200A/AE-50A/EW-50A to operate general-purpose equipment, and 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-200A/AE-50A LCD. In addition, this device includes a function that interlocks M-NET devices such as indoor units, general equipment, etc.

System Structure

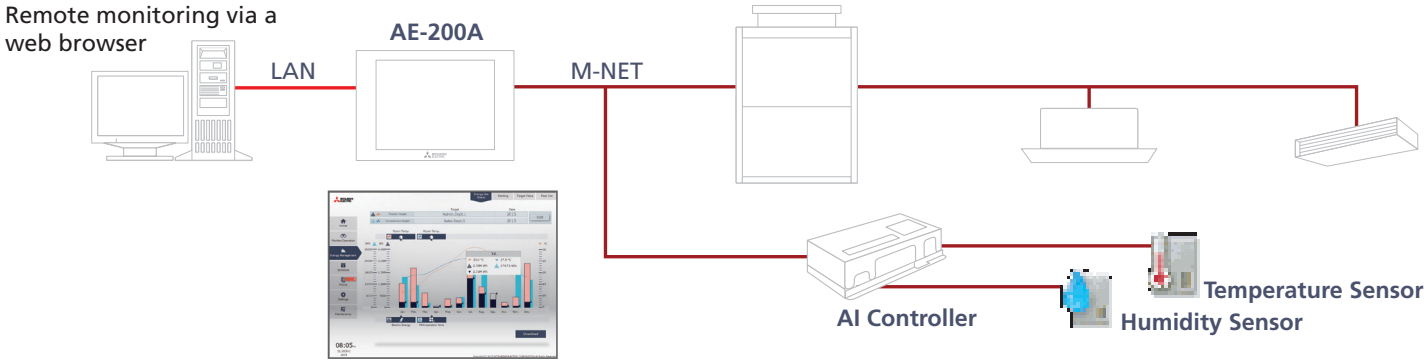


AI Controller

PAC-YG63MCA

The AI Controller makes it possible to monitor values measured by the temperature and humidity sensors. The AI Controller has two input and two output channels and must be connected with an AE-200A, AE-50A, or EW-50A centralized controller. The user can trend measured data on a web browser and set alarms to output via e-mail when data exceeds a preset upper or lower limit. (Note: 24 VDC power is required on-site.)

System Structure




credit human

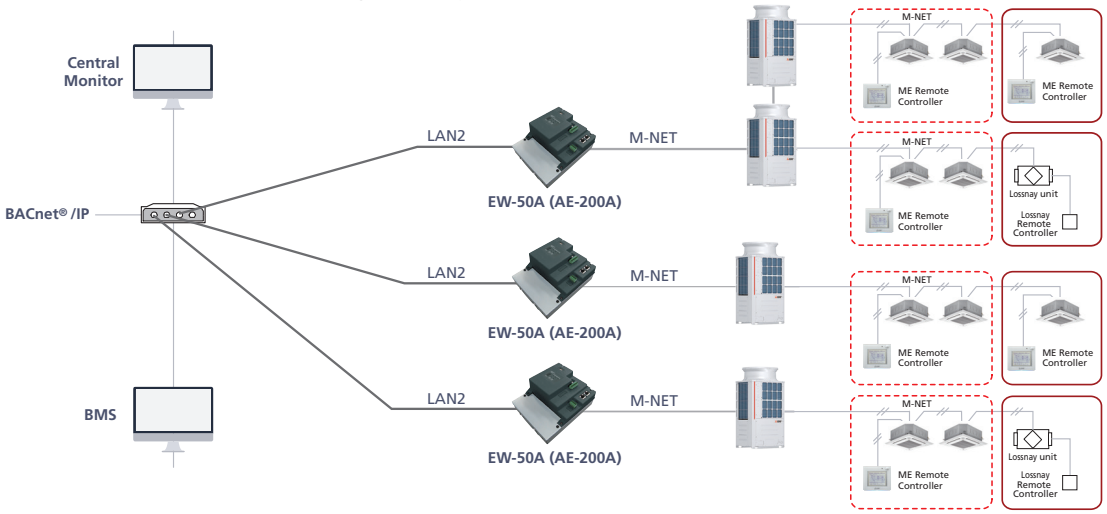

MITSUBISHI ELECTRIC
DCPro
DELL
LIFETIME

System Integration

BACnet®

CITY MULTI® can be easily combined with a Building Management System (BMS) via the EW-50A (AE-200A). 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-50A (AE-200A) can control up to 50 units/groups (including Lossnay®).

To use the BACnet function with the EW-50A (AE-200A), BACnet license registration is required.



BACnet® and M-NET Adapter Functions

Function	Content
Monitoring	
ON/OFF	ON/OFF
Mode Operation	Cool/Dry/Heat/Auto/Fan/Setback
Fan Speed Control	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	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

Function	Content
Operation	
ON/OFF	ON/OFF
Mode Operation	Cool/Dry/Heat/Auto/Fan/Setback
Fan Speed Control	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/Rest
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

* To use this function, the license to charge, AE-200A (not connected to the M-NET), PI controller, watt-hour meter with pulse transmitter (locally available one) are required.

Optional Parts for Control

Model	Description
PAC-SE41TS-E	Remote Sensor for A/J/K/M-Net Control
PAC-SF46EPA-G	Transmission booster
PAC-YG10HA	External input/output adapter for AE-200A
PAC-SC51KUA	Power supply unit for TC-24B
PAC-YG82TB	Mounting attachment for AE-200A wall-mount installations
PAC-YG84UTB	Electrical box for AE-200A wall-embed installations
PAC-YG86TK	Mounting kit for AE-200A wall-mount installations
PAC-YG72CWL	Surface cover with USB port for AE-200A

CITY MULTI® Controls Network (CMCN)

Our CITY MULTI® Controls Network (CMCN) makes it easy to manage your building. The Integrated Centralized Control Web (ICCW) manages up to 2,000 indoor units from a single networked PC or tablet. The ICCW puts individual, personalized comfort in the hands of the tenants and the building manager.

Flexible Design for Customized, Individual Zone Control

Building owners and engineers can select from a wide variety of remote controllers and other devices to satisfy the exact level of tenant control on a zone-by-zone basis, while providing the ultimate personal comfort. The versatility of the CMCN enables each building's controls network to address the specific design and tenant requirements while providing unparalleled occupant comfort.

Optional Easy-To-Use Control via PC Web Browser

From a web browser on a PC or tablet, the building manager can monitor, operate and schedule the HVAC system through the central controller. Plus, the building manager can enable tenants to control their own zones via a personal web browser on their networked PC, tablet, or smartphone.

Energy Savings

A centralized controller network configured with the energy allocation option and watt-hour meter(s) can calculate the HVAC energy consumption relative to each indoor unit on a per-tenant basis and generate a CITY MULTI energy allocation per tenant. The Energy Allocation feature is available through the AE-200A/AE-50A/ EW-50A centralized controllers.

System Integration

Not only can our CMCN act as a standalone building management system, it can also integrate with existing systems via LonWorks® or BACnet®.

Integrated Centralized Control Web

The Integrated Centralized Control Web (ICCW) enables the user to control multiple AE-200A/AE-50A /EW-50A centralized controllers and provides enhanced functions from any networked PC, tablet, or smartphone. ICCW can control up to 2,000 indoor units in conjunction with our centralized controllers.

Energy Allocation

ICCW allocates the energy cost of the outdoor unit(s) power consumption to building tenants based on the capacity used by their indoor units. It is great for condos and multiple tenant spaces, and it does require a software license (LIC-CHARGE).

Energy Allocation Screen

All Groups Screens

Schedule Screen

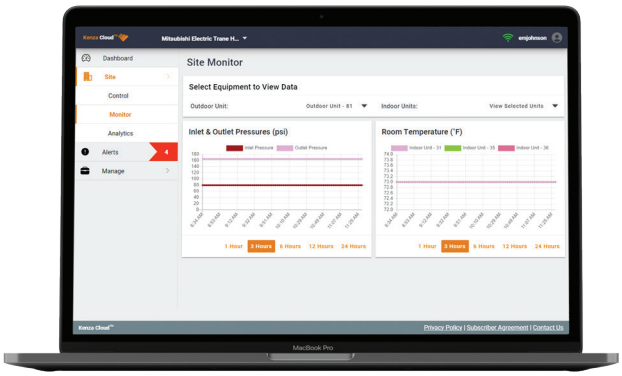
Floor Plan Screen

Home Screen (On Tablet)

kenza cloud™

RMD-50A

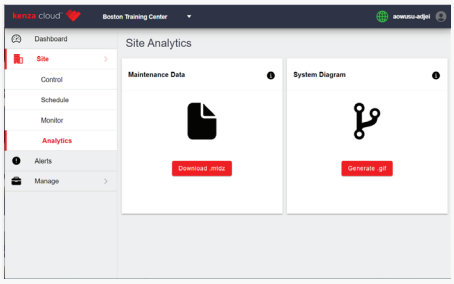
Introducing an IoT solution for light to medium commercial spaces where a central controller is not typically needed, but cloud access for monitoring and basic control is required. Introducing kenza cloud (RMD-50A), a simple MNET direct-to-cloud architecture to monitor your CITY MULTI® equipment



Monitor up to 50 indoor units

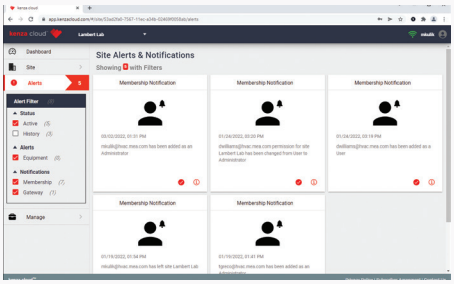
Remote F/W update for Gateway

Plug & Play installation

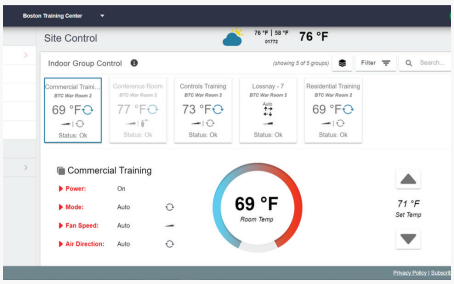


Remotely download five days of Maintenance Tool data to monitor the operation of CITY MULTI® equipment. Record and save system data for error code analysis, as well as extended warranty and troubleshooting purposes.

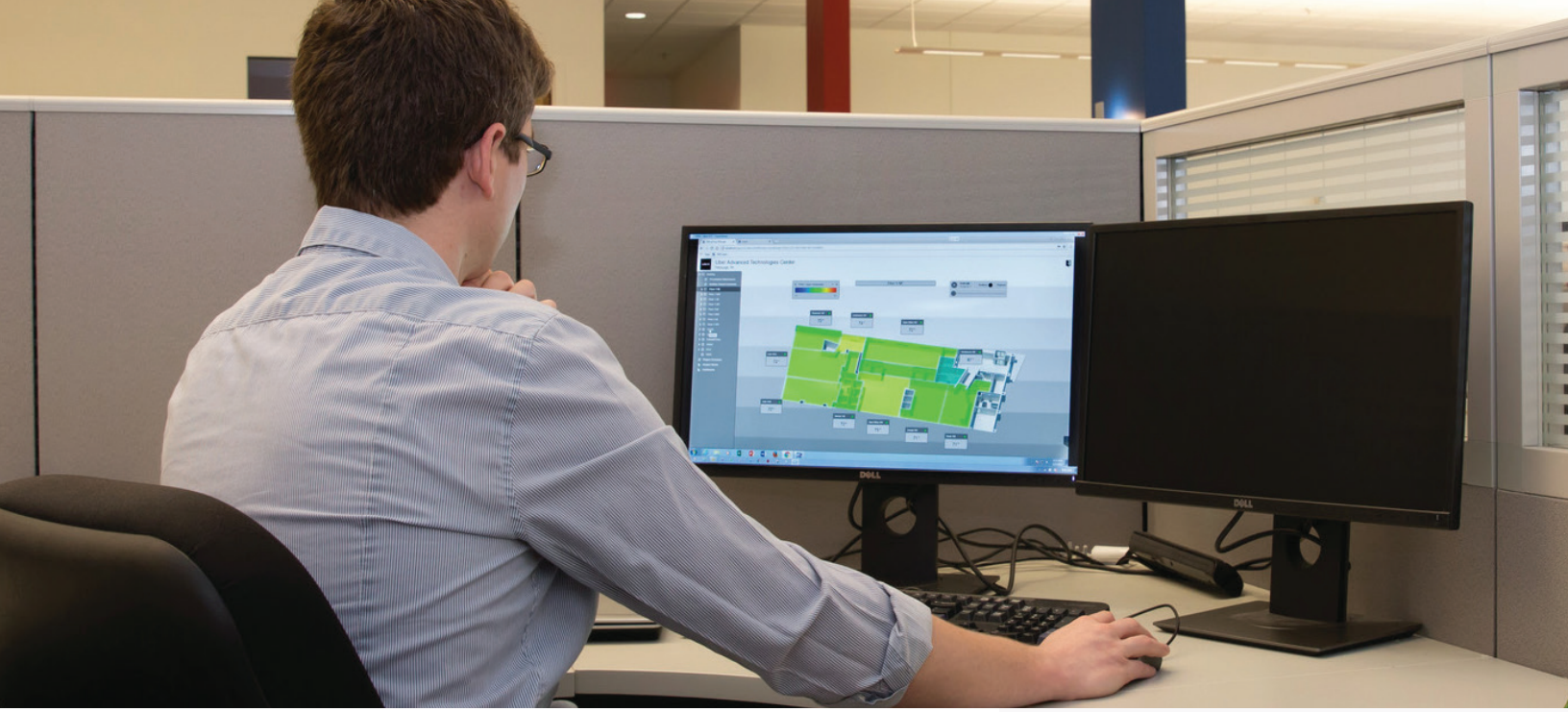
Under site analytics, view graphs for pressures and temperatures along with an animated gif snapshot of the Maintenance Tool refrigerant flow diagram.



Error codes can generate notifications and alerts on-screen and via email.



Control all the indoor units remotely on the controls page.



Diamond Controls™

Mitsubishi Electric's Diamond Controls is powered by the industry-leading Niagara Framework®, the industry's first software technology designed to integrate diverse building systems and devices into one seamless system. Niagara supports a wide range of protocols, including LonWorks®, BACnet®, Modbus®, oBIX, and internet standards. The Niagara Framework also includes integrated network management tools to support the design, configuration, installation, and maintenance of interoperable networks.

DCPro

The Mitsubishi Electric DCPro is a flexible network server for all connected DC-8000 stations. The DCPro provides efficient integration of standard open protocols. The DCPro creates a powerful network environment with comprehensive database functionality, alarm management, and messaging services. DCPro can manage global control functions, support data passing over multiple networks, connect to enterprise-level software applications, and host multiple, simultaneous client workstations connected over a local network or the internet.

DC-8000

The Mitsubishi Electric DC-8000 is an embedded controller/server platform that combines integrated control, supervision, data logging, alarming, scheduling, and network management functions into a small, compact platform with network connectivity and web serving capabilities. The DC-8000 makes it possible to control and manage external devices over the network, presenting real-time information to users in web-based graphical views.

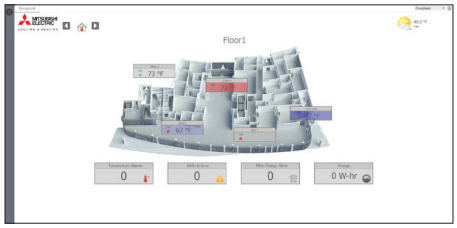
Need Assistance? Contact the Applied Projects Team

Controls Solutions is a group of industry experts located across the country who are ready to assist with every aspect of Mitsubishi Electric Cooling & Heating systems. By utilizing Applied Projects Team, a building owner has peace of mind that the project will seamlessly move forward with minimal hiccups. With one company providing the equipment and the controls, project execution is much more efficient.

Controls Solutions Offerings

- Project Supervision
- Owner Training
- System Start-up
- Project Training
- System Commissioning
- Design Support
- Retro-commissioning
- System Evaluation

Application Capabilities

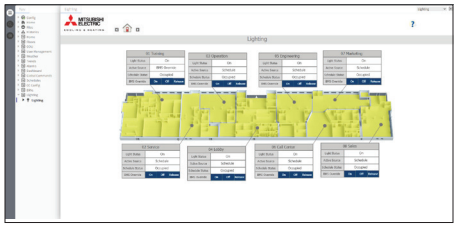


High-Resolution 3D Graphics

Diamond Controls enables a new graphical user experience for variable refrigerant flow (VRF) zoning systems with the inclusion of high-resolution three-dimensional floor plan graphics of your building.

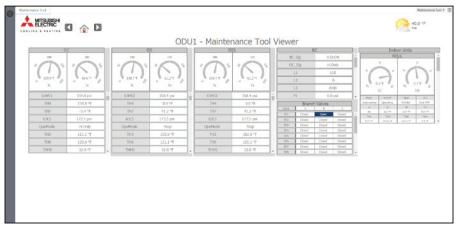
Demand Response Compliance

Demand Response programs help utilities maintain grid reliability and enable customers to realize significant value. Diamond Controls provides Demand Response compliance to a building owner through OpenADR.



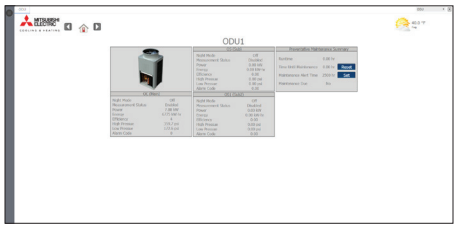
Lighting Control

Diamond Controls can manage a building's lighting system through integration with third-party equipment. Lighting control allows a building manager to set lighting schedules, which can be overridden by local switches if necessary.



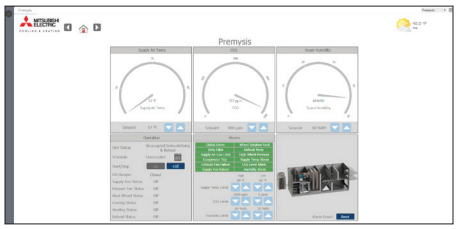
Central Plant Control

Diamond Controls can monitor, control, and schedule a central plant to provide chilled or hot water for the building's needs without requiring additional third-party controls.



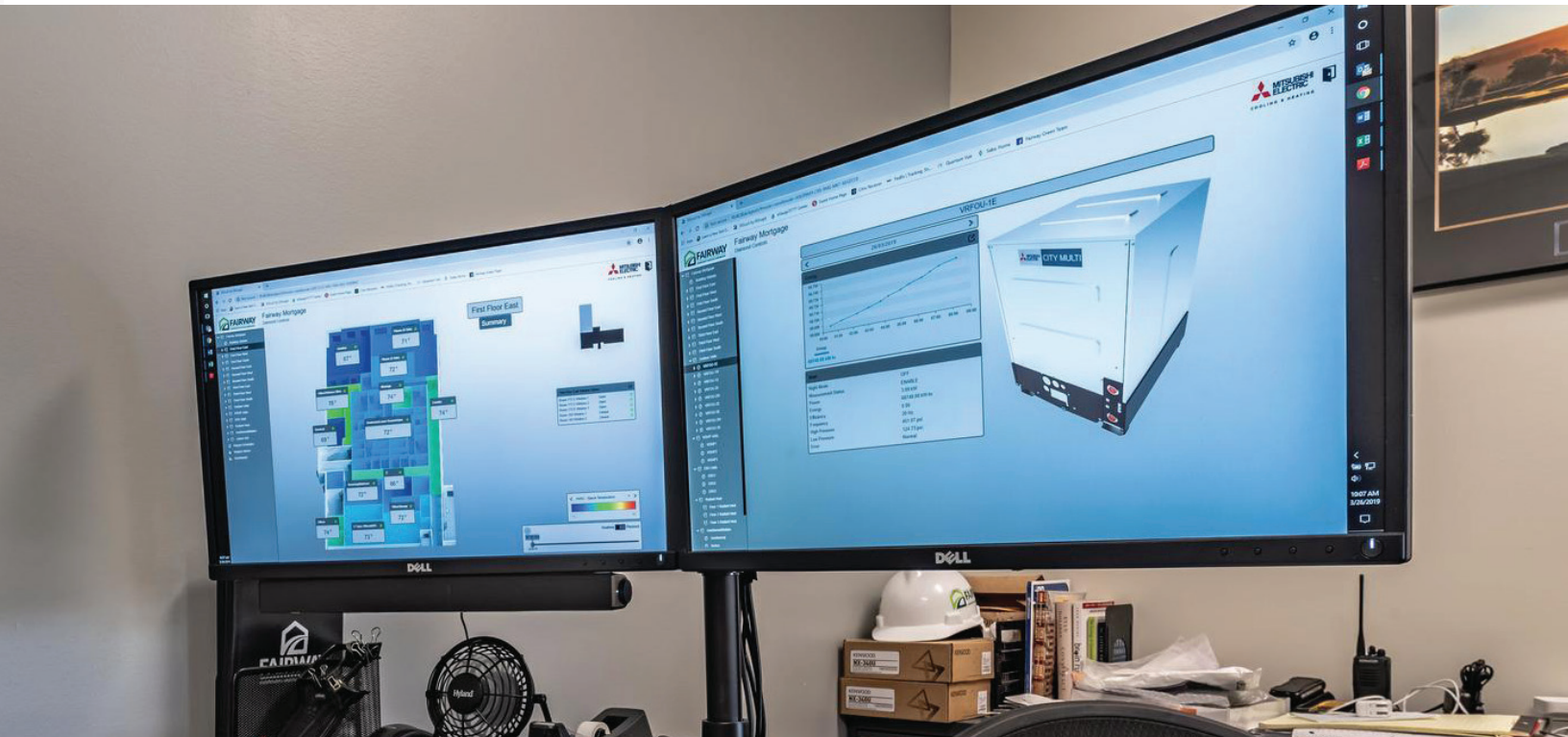
Advanced Alarming

Diamond Controls advanced logic enables superior alarming capabilities for building awareness, and VRF zoning systems. The building owner can set up multiple alarm conditions ranging from simple out-of-range alarms to advanced condition alarms.



HVAC Equipment Integration

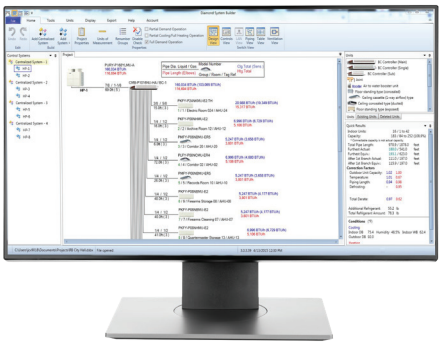
Diamond Controls can schedule, monitor, control, and integrate advanced logic within various HVAC manufacturers' equipment. Diamond Controls can also easily integrate into an existing building management system (BMS).



Diamond System Builder™

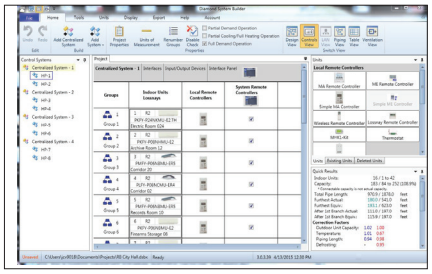
Interactive system tool providing simple and efficient system design

Diamond System Builder (DSB) helps users determine the cooling and heating output of selected equipment for project-specific conditions. The program has error indicators and built-in safeguards against exceeding limitations, and assuring line lengths, maximum connected capacities, component selections, control schemes, etc. are within the system requirements.



Application Capabilities

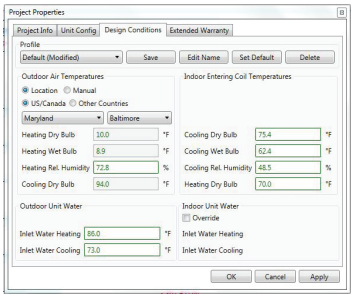
Optional Functions



Some functions to customize the system layout to your project are available, such as labeling groups with a room name, adding equipment tags to pieces of equipment, and giving each system a project-specific name. Other features, like a custom equipment schedule, submittal packages, and AutoCAD drawings, are available once the system layout has been finalized.

System Conditions

System design conditions, such as indoor and outdoor design conditions, are easily entered for cooling and heating. Customer and project names can be entered to identify the job on the outputs.



Universal Maintenance Tool

The new Universal Maintenance Tool software is the fast and easy way to monitor the operation of CITY MULTI®, M-Series, and P-Series systems.* Upgrades to hardware and software allow efficient access to system data, reducing the time needed to determine operational status and troubleshoot system errors. Monitor temperature, pressure, Linear Expansion Valve (LEV) position, electrical data, and much more. Information is updated every minute. View the status of connected indoor units, among many other capabilities. Maintenance Tool also allows a user to record and save system data for trending and future error code analysis and extended warranty and troubleshooting purposes.

*Separate cables required to access M- Series and P-Series data

PAC-USCMS-MN-1

MN Converter

- MN-Converter features a sleek design that fits in the palm of your hand
- Efficiently pinpoint and troubleshoot system errors
- Easily access more system data in multiple ways
- Animated graphics-based system view enables easier on-site diagnosis and troubleshooting
- Directly connectable to a PC via USB cable
- Includes built-in SD CARD for capturing system operational data - after connecting to M-NET

Controller Compatibility Table

		CN10 Remote Controllers, Interfaces and Accessories	PAR-U01MEDU-K (Smart ME)	Touch MA Remote Controller	PAR-FL32MA-E, PAR-FA32MA-E	PAR-SL100A-E, PAR-SF9FA-E
One-way Ceiling Recessed	PMFY NBMU	E: No ER5: ADPT (After April 2012) AZZBS	Yes	Yes	Yes (Requires Reciever)	No
Ducted	PEFY NMU & NMLU	E: No AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PEFY NMAU	E: No E2: ADPT (After April 2012) E3: Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PEFY NMHU	E: No ADPT (After April 2012) AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PEFY NMSU	E: No ADPT (After April 2012) E3: Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PEFY NMHSU	Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	No
Ceiling Cassette	PLFY NAMU	A: No E: No	Yes	Yes	Yes (Requires Reciever)	No
	PLFY NBMU	E: No ER2: ADPT (After April 2012) E2: Yes	Yes	Yes	Yes (Requires Reciever)	No
	PLFY NCMU	E: No ER4: ADPT (After April 2012) AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PLFY NEMU	Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PLFY NLMU	E: No	Yes	Yes	Yes (Requires Reciever)	No
	PLFY NFMU	Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	Yes
Ceiling-suspended	PCFY NGMU & VKM	E: No	Yes	Yes	Yes (Requires Reciever)	No
	PCFY NKMU	E: No E. TH: No ER1.TH: ADPT (After June 2012) AZZBS	Yes	Yes	Yes (Requires Reciever)	No
Floor-mounted	PFFY NEMU	E: ADPT (After April 2012) AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PFFY NRMU	E: ADPT (After April 2012) AZZBS	Yes	Yes	Yes (Requires Reciever)	No
Multi-position Air Handler	PVFY E00	E00A: Yes E00B: Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	No
	PVFY NAMU	Yes AZZBS	Yes	Yes	Yes (Requires Reciever)	No
Wall-mounted	PKFY NAMU/NFMU	E: No	Yes	Yes	Yes (Requires Reciever)	No
	PKFY NBMU	E: No E2: ADPT E2R1: ADPT (After April 2012) AZZBS	Yes	Yes	Yes (Reciever Built-in)	No
	PKFY NHMU	E: No E2: ADPT (After May 2012) AZZBS	Yes	Yes	Yes (Reciever Built-in)	No
	PFKY NKMU	E: No E2: ADPT E2.TH: ADPT (After June 2012) AZZBS	Yes	Yes	Yes (Reciever Built-in)	No

Addendum

Maintenance Equipment

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

Maintenance Cycle

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

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

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

When the equipment is used under the following conditions, the "maintenance cycle" and "replacement intervals" may be shortened.

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

Table 1. Maintenance Cycle

Major Components	Checking Cycle	Maintenance Cycle
Compressor	1 Year	20,000 Hours
Motor (Fan, louver, drain pump)		20,000 Hours
Bearings		15,000 Hours
Electric Board		25,000 Hours
Heat Exchanger		5 Years

Major Components	Checking Cycle	Maintenance Cycle
Expansion Valve	1 Year	20,000 Hours
Valve (Solenoid Valve, Four-Way Valve)		20,000 Hours
Sensor (Thermistor, Pressure Sensor)		5 Years
Drain Pan		8 Years

Note 1 This table shows major components. Refer to the maintenance contract for details.
Note 2 This maintenance cycle shows a period in which products are expected to require no maintenance. Use this cycle for planning maintenance (budgeting the maintenance expense etc.)
The Checking/ Maintenance cycle may be shorter than the one shown on this table depending on the contents of the maintenance check contract.

Sudden unpredictable accidents may occur even if check-ups are performed.

Replacement Cycle for Consumable Components

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

Table 2. Replacement Cycle

Major Components	Checking Cycle	Maintenance Cycle
Long Filter	1 Year	5 Years
High-performance Filter		1 Year
Fan Belt		5,000 Hours
Smoothing Capacitor		10 Years
Fuse		10 Years
Crank Case Heater		8 Years

Note 1 This table shows major components. Refer to the maintenance contract for details.
Note 2 This replacement cycle shows a period in which products are expected to require no replacement. Use this cycle for planning maintenance (budgeting expenses for replacing equipment, etc.)

Installation Information

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

1. General Precautions

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 air conditioner 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.
- An air conditioner with a heat pump requires time to warm up the whole room after the heating operation begins, because the system circulates warm air in order to warm up the whole room.
- 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 air conditioner 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 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 over current 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 air conditioner's external form, appearance, weight, operating sound, and other characteristics.

1-8. Operation/Maintenance

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

2. Precautions for Indoor Unit and BC Controller

1. Operating Environment

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

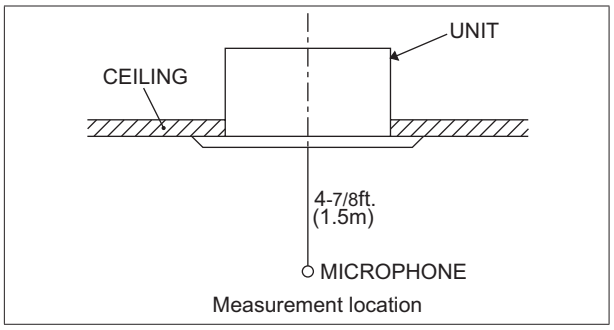
- The insulation for the low-pressure pipe between the BC controller and the outdoor/heat source unit must be at least 20 mm thick. If the unit is installed on the top floor or in a high-temperature, high-humidity environment, thicker insulation may be necessary.
- Do not have any branching points on 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 contractor. 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.

2-4. Noise Level (Sound Pressure Level)

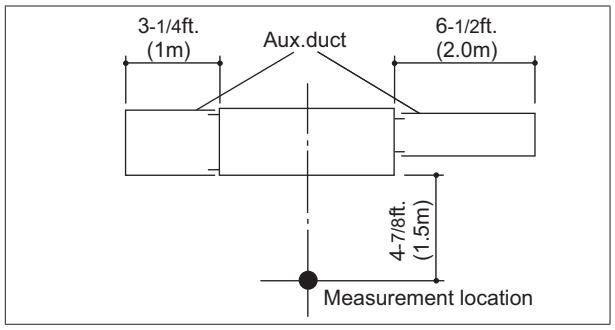
- The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the value indicated in this catalogue due to the influence of ambient noise and echoes.

Measurement Location

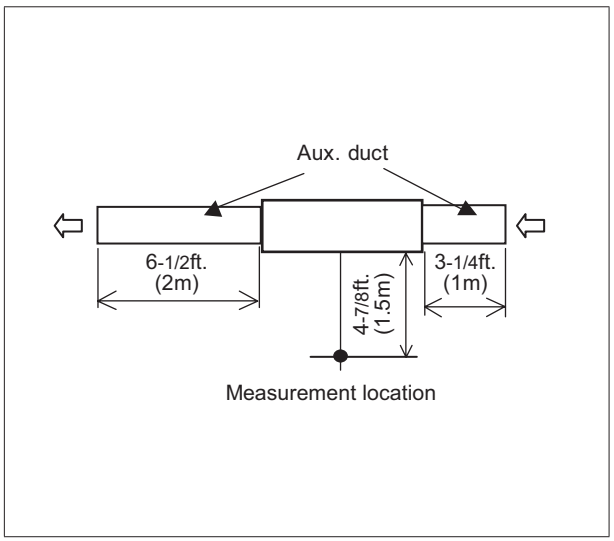
PLFY-EP-NEMU-E(1), PLFY-P-NFMU-E, PMFY-P-NBMU-E



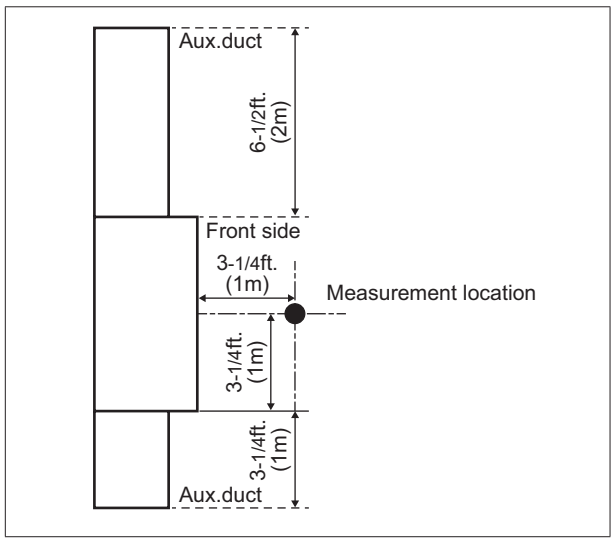
PEFY-P-NMSU-E, PEFY-P-NMH(S)U-E(2), PEFY-P-NMHU-E-OA



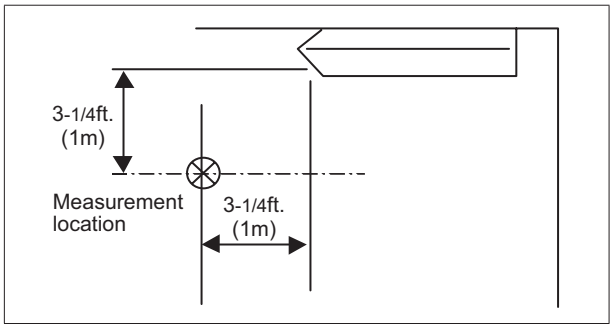
PEFY-P-NMAU-E3



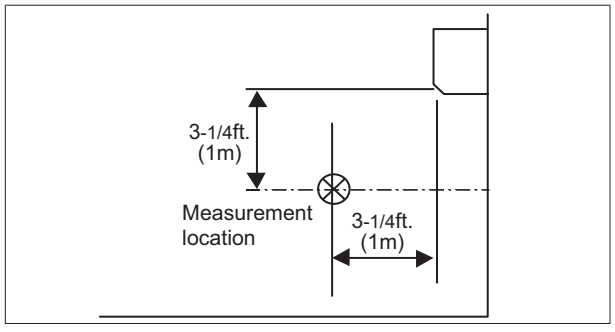
PVFY-P-NAMU-E1



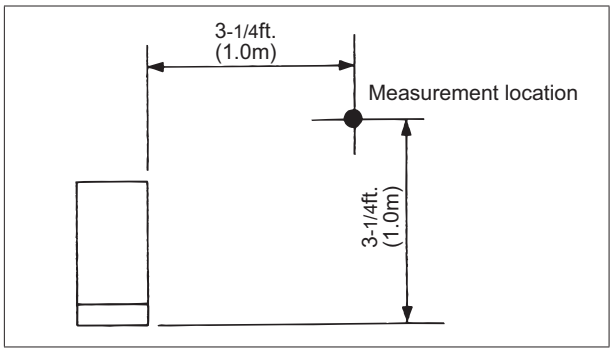
PCFY-P-NKMU-E



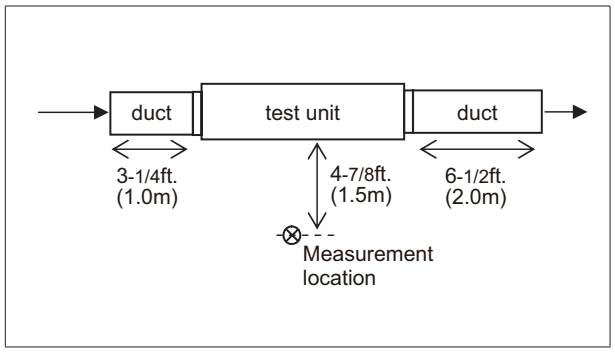
PKFY-P-NLMU-E, PKFY-P-NKMU-E2



PFFY-P-NEMU-E, PFFY-P-NRMU-E



PEFY-AF1200CFMR-E



3. Precautions for Fresh Air Intake-type Indoor Unit

3 1. Usage

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

3-2. Unit Characteristics

- This unit cannot perform drying operation. The unit will continue fan operation and blow fresh air (air that is not air-conditioned) when the Heating Thermo OFF or Cooling Thermo OFF mode is selected.
- The fan may stop temporarily when the unit is connected to a simultaneous cooling/heating operation-type outdoor/heat source unit (R2, WR2-Series) or during the defrost cycle.
- If only this unit is used as an indoor unit, condensation may form at the supply air grille while the unit is operated in cooling mode. This unit cannot perform dehumidifying operation.
- The maximum connectible indoor units for 1 outdoor unit is 110% (100% in case of heating below 23° F/-5° C).
- When fresh air intake-type indoor units are connected to an outdoor unit together with other types of indoor unit, the total capacity of the fresh air intake-type indoor units must be no more than 30% of the capacity of the connected outdoor unit.
- The AUTO mode on the local remote controller is available only when the fresh air intake-type indoor unit is connected to the R2 or WR2-Series outdoor units.
- The system changeover function is available only when all the connected indoor units are fresh air intake-type indoor units.
- Untreated outside air such as humid air or cold air will be blown into the indoor environment during Thermo OFF operation, which may cause dew condensation on the grilles and ducts. Ensure that the grilles, ducts, and rooms are properly insulated to prevent dew condensation.
- An air filter must be installed in the air intake side. The filter should be attached where easy maintenance is possible if using locally procured filters.
- The outside air temperature ranges for operation are as follows:
  - Cooling: 63° F (17.2° C) D.B.–118° F (47.7° C) D.B.
  - Heating: 14° F (-10° C) D.B.–59° F (15° C) D.B.
  - The unit is forced to operate in Thermo OFF (fan operation) mode when the outside air temperature is as follows:
  - Cooling: 63° F (17.2° C) D.B. or below
  - Heating: 59° F (15.0° C) or above
- Outside air is directly supplied into the room during Thermo OFF. Be careful with regard to cold supply air due to low outside air temperatures and of condensation in the room due to high humidity of the outside air.
- If the airflow rate is higher than the usable range, condensation may drip from the air outlet, and the air flow rate will be automatically reduced by the fan motor control. If the air flow rate is lower than the usable range, condensation may form on the surface of the unit.
- Combining fresh air intake-type indoor units with other types of indoor units to respond to the internal thermal load may cause conflict in operating modes. It is not recommended when a fresh air intake-type indoor unit is connected to a Y or WY-Series unit.
- Depending on the air-conditioning load, outside temperature, and the activation of protection functions, the desired preset temperature may not always be achieved and the discharge temperature may swing. Note that untreated outside air may be delivered directly into the room upon the activation of protection functions.
- Fresh air intake-type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY-Series units.

4. Precautions for Outdoor Unit/Heat Source Unit

4-1. 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 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, 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 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 or below.
- Keep the water circulating to prevent it from freezing when the ambient temperature is 32° F 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.

4-2. 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.

4-3. 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.

4-4. Related Equipment

- Provide grounding in accordance with the local regulations.

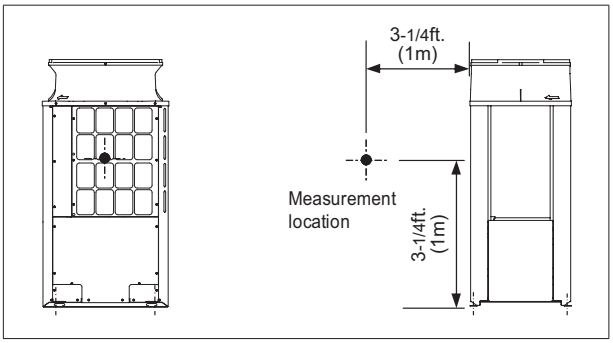
4-5. Noise Level (Sound Pressure Level)

- The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the indicated value in this catalogue due to the influence of ambient noise and echoes.
- Valve operation noise and refrigerant flow noise may occur from inside the outdoor unit/heat-source unit.

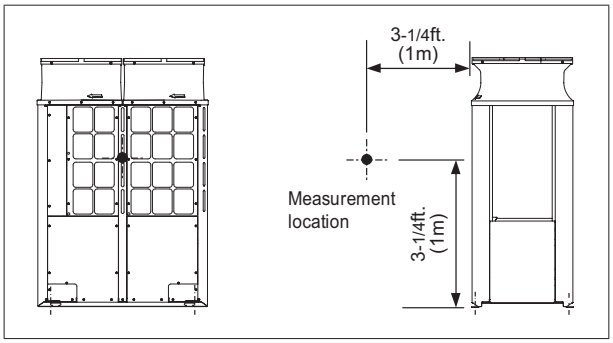
Measurement Location

PUHY-(E)P-YNU-A(-BS), PUHY-(E)P-TNU-A(-BS), PUHY-HP-YNU-A(-BS), PUHY-HP-TNU-A(-BS), PURY-(E)P-YNU-A(-BS), PURY-(E)P-TNU-A(-BS), PURY-HP-YNU-A(-BS), PURY-HP-TNU-A(-BS)

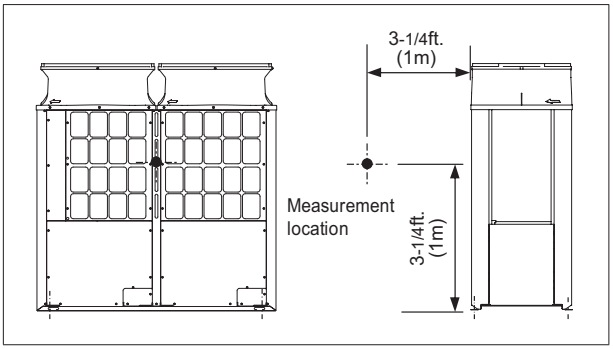
PUHY-(E)P72TNU/YNU, PURY-(E)P72TNU/YNU



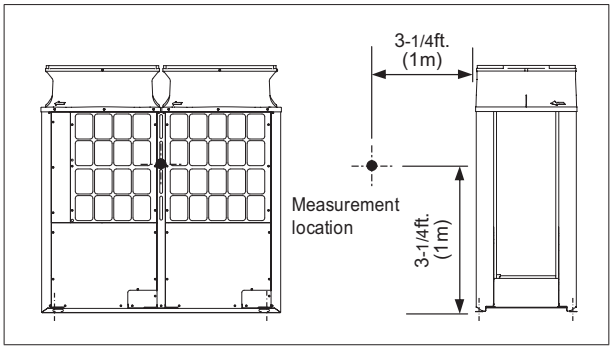
PUHY-(E)P96, 120, 144TNU/YNU, PURY-(E)P96, 120, 144TNU/YNU, PUHY-HP72, 96, 120TNU/YNU, PURY-HP72, 96, 120TNU/YNU



PUHY-P168TNU/YNU, PUHY-EP168, 192TNU/YNU
PURY-P168TNU/YNU, PURY-EP168TNU/YNU



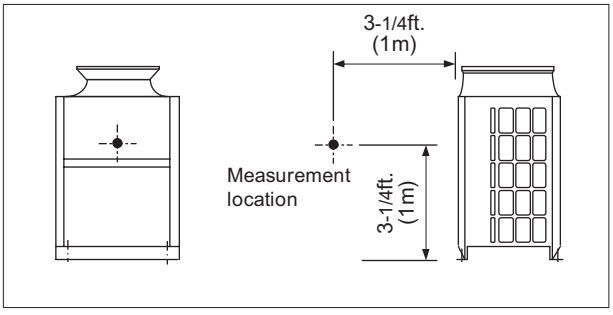
PUHY-EP216, 240TNU/YNU,
PURY-EP192, 216, 240TNU/YNU



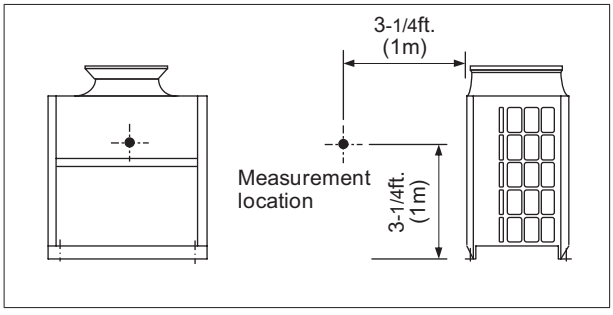
*See the DATA BOOK for information on the combination models.

PUHY-P-ZKMU-A(-BS), PURY-P-ZKMU-A(-BS)

PUHY-P72ZKMU, PURY-P72ZKMU



PUHY-P96ZKMU, PURY-P96ZKMU



*See the DATA BOOK for information on the combination models.

5. Precautions for Control-Related Items

5-1. Product Specification

- To introduce the MELANS system, a consultation with us is required in advance. Especially to introduce the electricity charge-apportioning function or energy save function, further detailed consultation is required. Consult your local distributor for details.
- Billing calculation for AE-200A/AE-50A/EW-50A, 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 air conditioner is calculated. Note that the electric power consumption by air conditioner is apportioned by using the ratio corresponding to the operation status (output) for each air conditioner (indoor unit) in this method.
- In the apportioned billing function for AE-200A/AE-50A and EW-50A, separate watt-hour meters should be used for A-control units, K-control units, and CITY MULTI® packaged air conditioners. 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-200A/AE-50A or EW-50A, 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-200A/AE-50A/EW-50A/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.

5-2. 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 air conditioners 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-200A/AE-50A or EW-50A to the Internet.

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

mitsubishicomfort.com

MITSUBISHI ELECTRIC
TRANE HVAC US

Printed in the USA

ME_CM_0788_6-24