

**MITSUBISHI  
ELECTRIC**  
*Changes for the Better*

AIR CONDITIONING SYSTEMS

# CITY MULTI



**CM21AS-V**

## CITY MULTI YKD-Series

# Further Enhanced Energy Saving

Saving energy is becoming ever more important all around the world. Mitsubishi Electric is at the forefront of this development, with advanced products that realize high-quality energy saving solutions for customers in all fields.

### **Energy saving key point 1** High rated performance

Compared to the conventional series, all models of the YKD series (8 to 60HP) are improved rated EER/COP. This means less energy will be consumed during peak hours, such as high-temperature periods in the daytime.

### **Energy saving key point 2** High partial-load performance

The YKD-Series surpass the conventional series not only in rated specifications but also in terms of partial-load performance. During mornings and evenings, when the temperature is lower and less cooling power is required, better efficiency also enables significant energy savings.

### **Energy saving key point 3** Energy saving assist function

The functions makes it possible to optimize energy saving performance by closely matching the requirements of the installation location. This makes it possible to achieve results that surpass the specifications of the product, contributing to truly energy-saving buildings.



# S-series

## PUMY

Side-flow type outdoor units have a depth of 330 mm [13 in.], and can be installed in tight spaces. The lineup includes models from 4 HP to 9 HP. They are suitable for small-scale offices and residences.



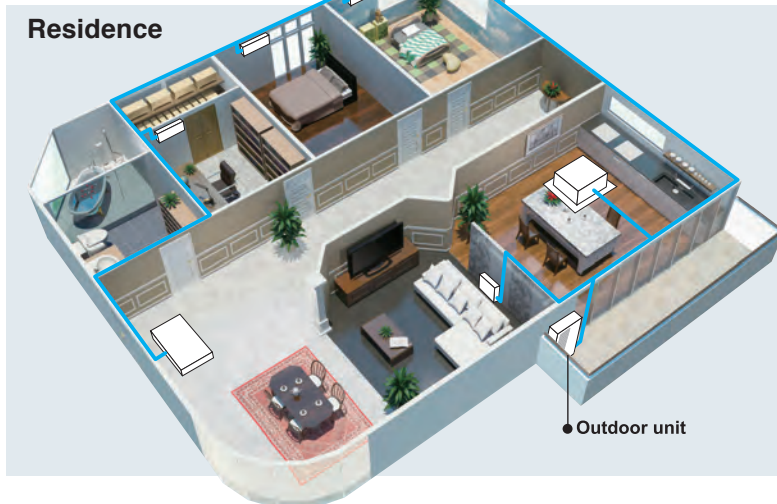
**Cooling only**

- PUMY-CP YKM
- PUMY-CP YBM



PUMY-CP175-225YKM(-BS) PUMY-CP250-300YBM(-BS)

### Installation image



### Advantage of PUMY (for residences)

One outdoor unit can be connected to up to 12 indoor units. Even when indoor units are installed in many rooms, one outdoor unit can connect multiple indoor units.

↓  
**Space savings**

### All models features

#### Wide range of available according to use pattern

① **Operation guaranteed at an outside air temperature of up to 52°C [125°F].**

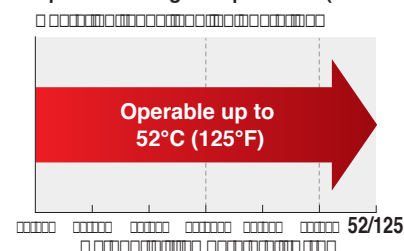
• New inverter technology has made it possible for units to operate at an outdoor air temperature as high as 52°C [125°F].

#### ② **Quiet mode**

All models have three quiet modes in addition to the normal mode, and a suitable noise mode can be selected from among the four available modes. The noise level can be set according to the application, for example, in a residential zone where noise may be an issue.

\* Capacity reduction differs by mode setting.  
\* PAC-SC36NA-E is required to activate this mode.  
\* Available during cooling only.

#### ■ Operation at high temperatures (52°C/125°F)



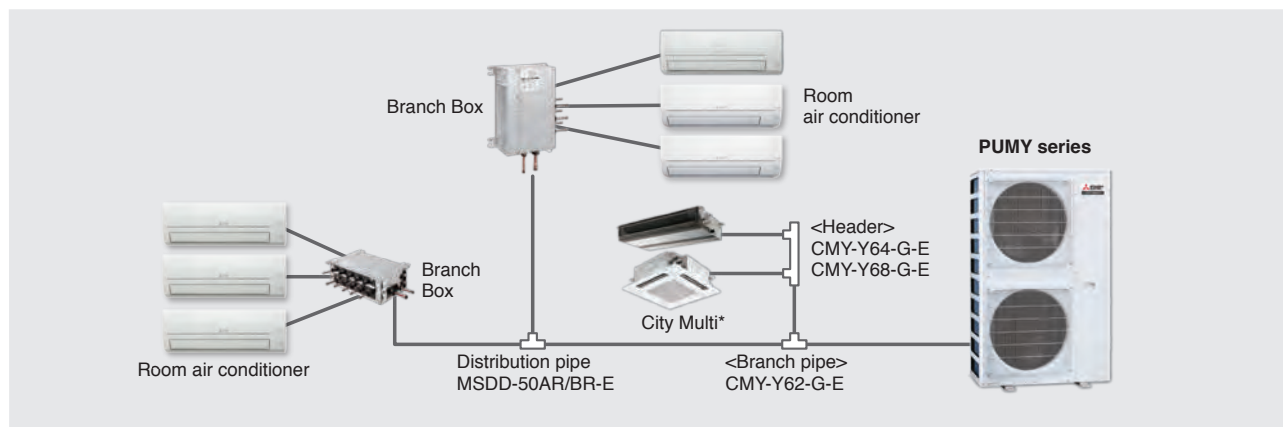
# Features of the Branch Box

Connecting branch boxes makes it possible to connect to Mitsubishi Electric indoor units (room air conditioners, Mr. SLIM) that do not normally support M-NET connections.



## System example

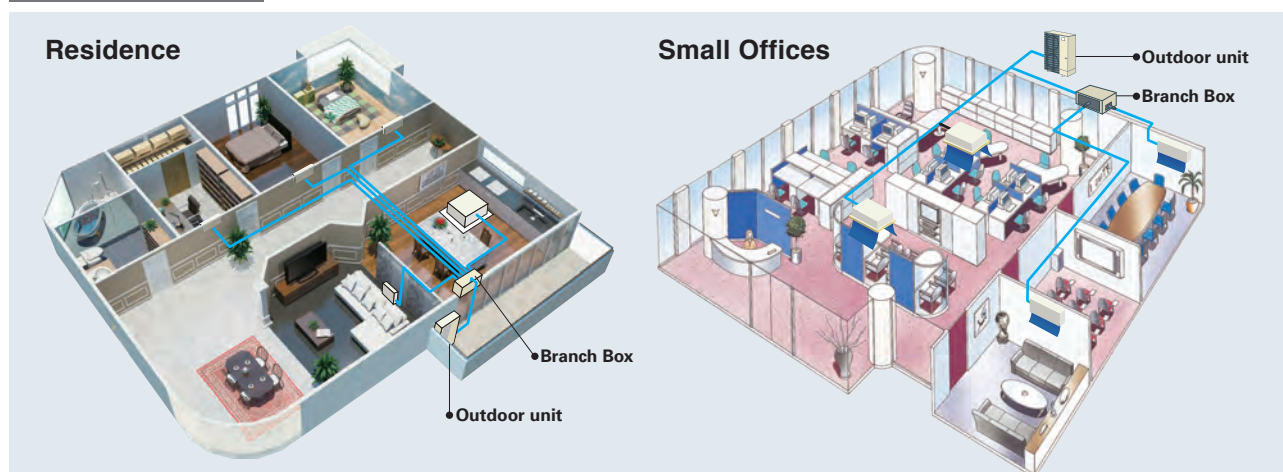
The use of branch boxes makes it possible for PUMY-Series devices to connect not only to CITY MULTI indoor units but also to Mitsubishi Electric indoor units that do not normally support M-NET connections. Thus it is possible to connect to room air conditioners and Mr. SLIM indoor units, allowing for a selection specifically designed to suit how the room is being used.



## Specifications

Model			PAC-MK54BC	PAC-MK34BC
Connectable Number of Indoor Units			Max. 5	Max. 3
Power Supply	Source		Outdoor power supply, Branch Box / Outdoor separate power supply	
	Outdoor (V/Phase/Hz)		1-phase, 220/230/240V, 50Hz, 1-phase, 220/230V, 60Hz	
Total Input		kW	0.003	
Operating Current		A	0.05	
Dimensions H x W x D		mm	170 x 450 x 280	
Weight		kg	7.4	6.7
Piping (diameter)	Branch (Indoor Side)	Liquid	6.35 x 5	6.35 x 3
		Gas	9.52 x 4, 12.7 x 1	9.52 x 3
	Main (Outdoor Side)	Liquid		9.52
		Gas		15.88
Connection Method			Flared	
Wiring	to Indoor Unit		3-wire + Earth wire	
	to Outdoor Unit		3-wire + Earth wire	

## Installation image



Consolidating heat sources for room air conditioners, which require a 1:1 connection between the outdoor unit and indoor unit, and reducing installation space is possible.

Because the branch box can be installed indoors or outdoors and mounted on a wall, ceiling, or floor, it is possible to meet the requirements of various installation situations flexibly.

\*Please refer to installation manual for installation restrictions.

OUTDOOR UNIT

S-series

PUMY-CP YKM (-BS)

NEW



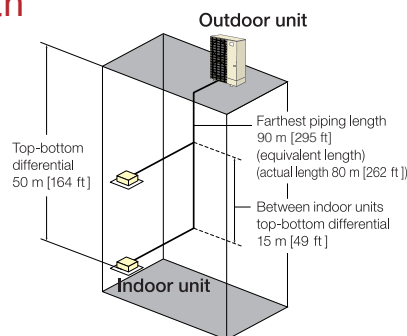
CP175~225

Specifications

Model		PUMY-CP175YKM (-BS)	PUMY-CP200YKM (-BS)	PUMY-CP225YKM (-BS)
Power source		3-phase 380-400-415V 50Hz / 380V 60Hz		
Cooling capacity (Nominal)	*1 kW	20.0	22.4	25.0
	*1 BTU/h	68,200	76,400	85,300
Current input	Power input kW	5.00	5.74	6.54
	A	8.94-8.50-8.19 / 8.94	10.03-9.53-9.18 / 10.03	11.17-10.61-10.23 / 11.17
Temp. range of cooling	EER	4.00	3.90	3.82
	Indoor temp. W.B.	15.0 to 24.0°C (59 to 75°F)		
Indoor unit connectable	Outdoor temp. D.B.	10 to 52.0°C (50 to 126°F)		
	Total capacity	50 to 150% of outdoor unit capacity *2		
Sound pressure level (measured in anechoic room)	Model/Quantity	15-200/12	15-250/12	15-250/12
	CITY MULTI			
Refrigerant piping diameter	Liquid pipe mm (in.)	9.52 (3/8) Flare*4		
	Gas pipe mm (in.)	22.2 (7/8) Braze		
Fan	Type x Quantity	Propeller Fan x 2		
	Air flow rate	m <sup>3</sup> /min	134	134
Compressor	*5 Motor output kW	0.20 + 0.20		
	Type x Quantity	Scroll hermetic compressor x 1		
	Starting method			
External finish	Motor output kW	3.5	3.9	4.3
	External dimension H x W x D	mm	1,338 x 1,050 x 330 (+25)	
Protection devices	High pressure protection	52-11/16 x 41-11/32 x 13 (+1)		
	Inverter circuit (COMP./FAN)	High pressure switch		
Refrigerant	Compressor	Overcurrent detection, Overheat detection (Heat Sink thermistor)		
	Fan motor	Compressor thermistor, Overcurrent detection		
Net weight	Type x original charge	Overheating, Voltage protection		
		R410A 6.3kg		
Heat exchanger		129 (285) *6		
		Cross Fin and Copper tube		
Defrosting method		Reversed refrigerant circuit		
	Optional parts	Joint: CMY-Y62-G-E, Header: CMY-Y64/68-G-E		
Energy Labelling scheme				

Piping length

[CP175-225YKM]



Refrigerant Piping Lengths Maximum meters [feet]

Total length	150 [492]
Maximum allowable length	80 (90 equivalent) [262 (295)]
Farthest indoor from first branch	30 [98]

Vertical differentials between units Maximum meters [feet]

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

Notes:

\*1 Nominal conditions

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

\*2 Up to 150% can be connected. However, up to 130% for simultaneous operation.

\*3 Cooling mode/Heating mode

\*4 Liquid pipe diameter: 12.7mm in case that the farthest piping length is longer than 60m, or piping length from outdoor unit to a branch box is longer than 20m.

\*5 130 (289) for PUMY-CP175/200/225YKM-BS.

\*Nominal conditions \*1 are subject to ISO 15042.

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

OUTDOOR UNIT

**S-series**

PUMY-CP YBM (-BS)

NEW

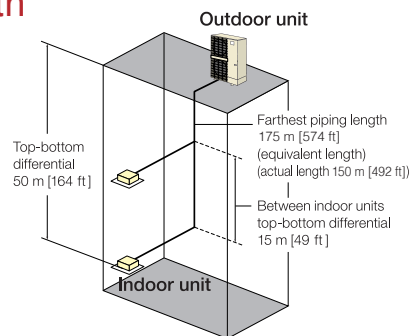


Specifications

Model		PUMY-CP250YBM (-BS)		PUMY-CP300YBM (-BS)	
Power source		3-phase 380-400-415 V, 50 Hz; 3-phase 380 V, 60 Hz			
Cooling capacity (Nominal)	*1 kW	28.0		33.5	
	*1 BTU/h	95,500		114,300	
Power input	kW	7.18		8.59	
	A	11.73-11.14-10.74, 11.73		14.03-13.33-12.85, 14.03	
	EER	3.90		3.90	
Temp. range of cooling	Indoor temp. W.B.	15.0 to 24.0°C (59 to 75°F)			
	Outdoor temp. D.B.	10.0 to 52.0°C (50 to 126°F)			
Indoor unit connectable	Total capacity	50 to 150% of outdoor unit capacity *2			
	Model/Quantity	CITY MULTI		15-250/24	
Sound pressure level (measured in anechoic room)	dB <A>	59		60	
	Refrigerant piping diameter	Liquid pipe mm (in.)	9.52(3/8) Flared *5		12.7(1/2) Flared
Fan	Gas pipe mm (in.)	22.2(7/8) Brazed		25.4(1) Brazed	
	Type x Quantity	Propeller Fan x 2			
Air flow rate	m <sup>3</sup> /min	178		178	
	L/s	2,966		2,966	
	cfm	6,285		6,285	
	Motor output kW	0.375 + 0.375			
Compressor *3	Type x Quantity	Scroll hermetic compressor x 1			
	Starting method	Inverter			
	Motor output kW	6.77		7.59	
External finish		Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1			
External dimension H x W x D	mm	1,662 x 1,050 x 460 (+45)			
	in.	65-7/16 x 41-11/32 x 18-7/64 (+1-49/64)			
Protection devices	High pressure protection	High pressure switch			
	Inverter circuit	Overcurrent detection, Overheat detection (Heat Sink thermistor)			
	Compressor	Compressor thermistor, Overcurrent detection, Compressor protector			
	Fan motor	Overcurrent, Overheating, Voltage protection			
Refrigerant	Type x original charge	R410A 8.0kg			
Net weight	kg (lbs)	185 (408) *4			
Heat exchanger		Micro-Slit Fin and Copper tube			
Defrosting method		-			
Optional parts		Joint: CMY-Y62-G-E, Header: CMY-Y64/68-G-E			
Energy Labelling Scheme					

Piping length

[CP250-300YBM]



Refrigerant Piping Lengths Maximum meters [feet]

Total length	310 [1,017]
Maximum allowable length	150 (175 equivalent) [492 (574)]
Farthest indoor from first branch	30 [98]

Vertical differentials between units Maximum meters [feet]

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

Notes:

\*1 Nominal conditions

	Indoor	Outdoor	Pipe length	Level difference	External static press.
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB (95°F DB)	7.5m (24-9/16ft.)	0m (0ft.)	0 Pa

\*2 Up to 150% can be connected. However, up to 130% for simultaneous operation.

\*3 External static pressure option is available (30 Pa/3.1 mmH<sub>2</sub>O).

\*4 179 (395) for PUMY-CP250/300YBM-BS.

\*5 Liquid pipe diameter: 12.7mm, in case of farthest piping length (farthest indoor unit from outdoor unit) is longer than 90m, or connect with PEFY-P200/250.

\*Nominal conditions \*1 are subject to ISO 15042.

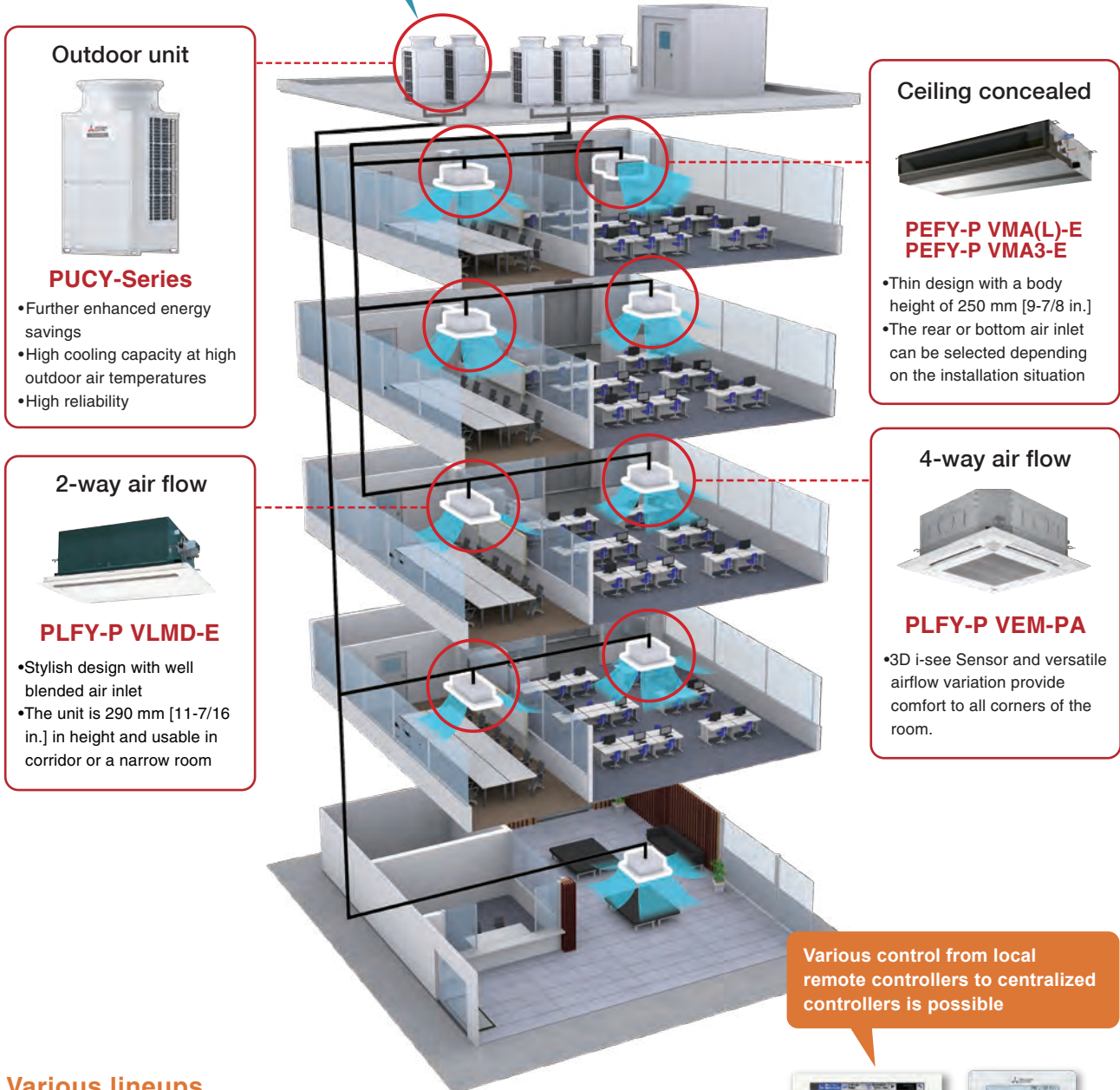
\*Due to continuing improvement, above specification may be subject to change without notice.

# System structure example

## System Pipe Lengths

We use a two-pipe system. Unlike chiller system, VRF system does not require pumps or control panels, and these functions are integrated into the outdoor units. The piping can be designed appropriately to any building design by using joints and headers and flexibly adapted to many applications.

No separate transfer device such as pump required



## Various lineups

CITY MULTI includes various types of outdoor units, indoor units and controllers. The customers can easily select the models according to their situation. The units can be individually controlled, and it is possible to start or stop the air conditioner and set the conditions, such as temperature, in each room.



AE-200E



PAR-40MAA



# YKD-series

The YKD series not only realize high energy savings and quality performance from Mitsubishi Electric, they also feature further improved reliability. This is especially important in the Asian climate which requires enhanced cooling capacity at high outside air temperatures.



**S** module



**L** module



**XL** module

\* Product images are PUCY models

## Further enhanced energy savings

- Higher rated EER in all models (compared to conventional model)
- Improved energy efficiency under partial-load conditions
- Evaporating temperature control provides further energy savings

## Cooling capacity at high outdoor air temperatures

- Operation guaranteed up to an outside air temperature (intake temperature) of 52°C
- The assist function for enhanced cooling power at high outside air temperatures
- Rapid mode reduces startup time

## High reliability

- Structure features a low-pressure shell compressor, polyurethane coated circuit boards and other high-reliability parts
- Emergency operation mode and rotation function, etc. contribute to enhanced operation reliability

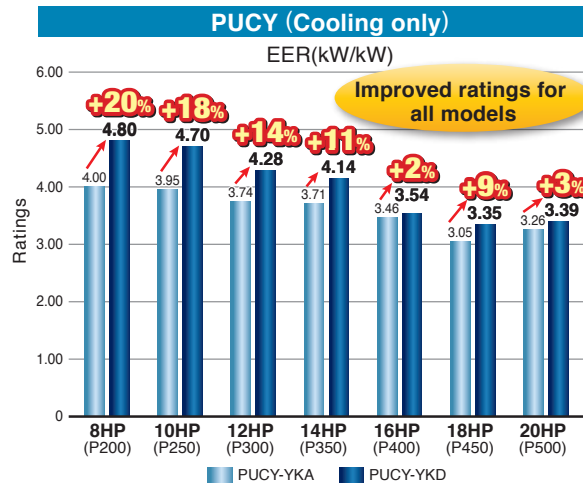
## High installation flexibility

- Two-pipe system and M-NET wiring facilitate installation
- Selectable external static pressure setting to match site conditions

# Further enhanced energy savings

## 1. Higher EER ratings

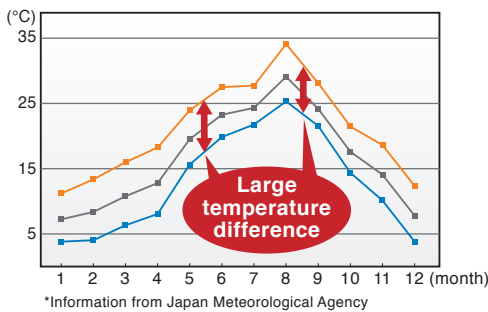
Compared to conventional products (YKA series), the YKD series achieves improved EER in all cooling-only models and heat pump models from 8 to 60HP. The 8HP model (PUCY-P200YKD) boasts 20% improvement.



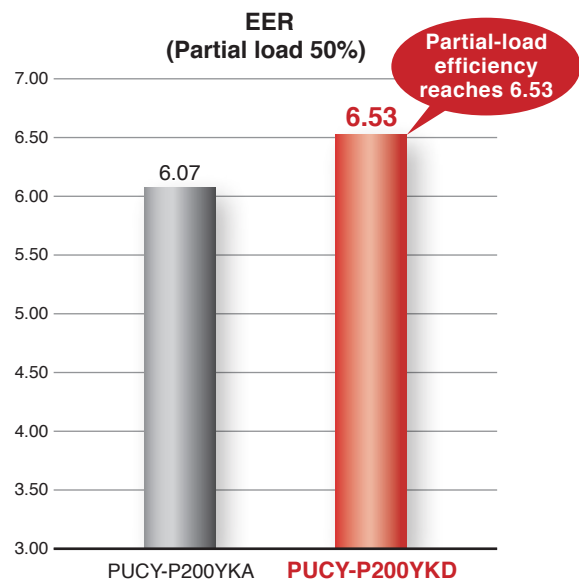
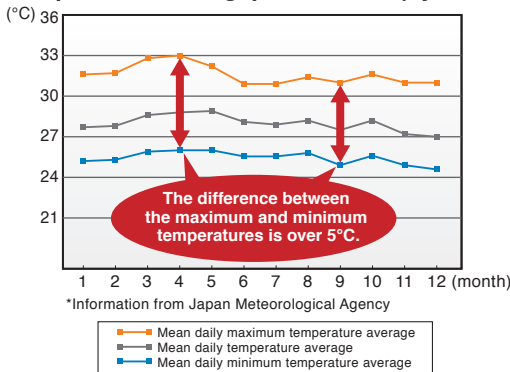
## 2. High partial-load performance

At times when the temperature difference between daytime and morning/evening is large, efficient operation also under low-load conditions is important. The multi-port design of the compressor helps to improve partial-load efficiency compared to conventional models, enabling highly efficient operation throughout the year, including season changeover periods.

Temperature in Tokyo in 2020 (by month)



Temperature in Singapore in 2020 (by month)



# Further enhanced energy savings

## 3. Energy saving assist function

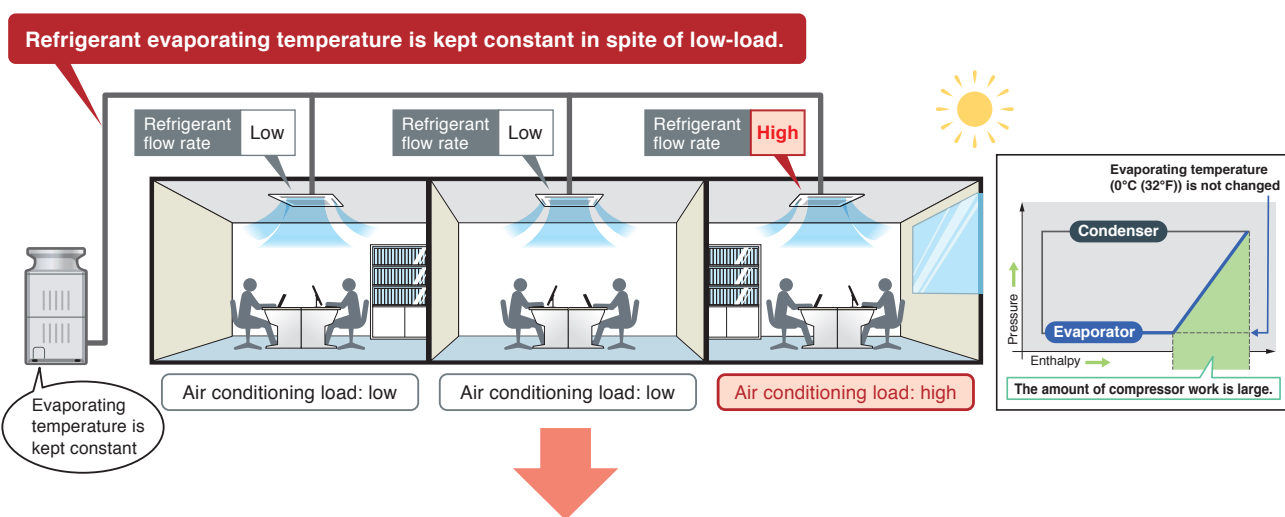
In addition to the basic energy saving design, energy saving assist functions can be activated easily via DIP switch settings. This allows matching the equipment to various installation patterns.

### Evaporating temperature control

During cooling operation, the temperature of the refrigerant can be controlled according to the air conditioning load. This helps energy efficient operation.

#### ■ Normal mode

The evaporating temperature is kept constant regardless of the load. Even at low loads, the normal evaporating temperature does not change, which leads to energy waste during partial load operation.



#### ■ Smart evaporation temperature control mode

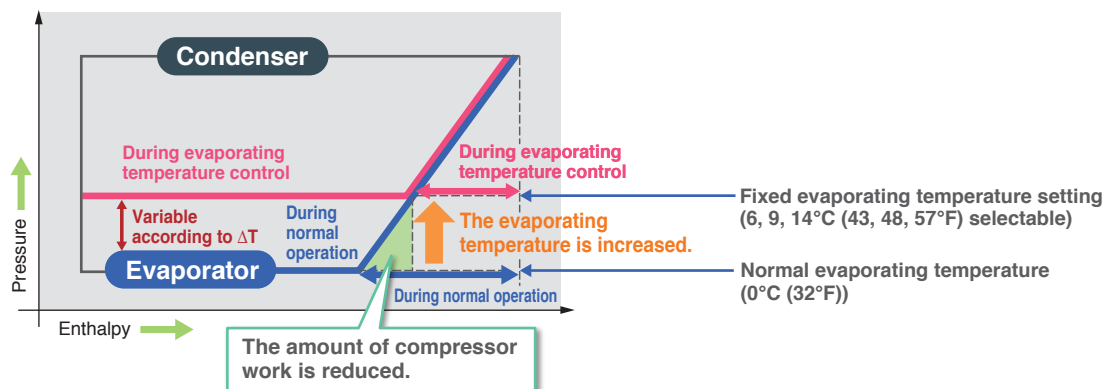
The YKD series supports evaporating temperature control which adjusts the refrigerant evaporating temperature. Two control methods are available: fixed control and automatic shift control.

- \* Changing the evaporating temperature is achieved by changing DIP switch settings on the outdoor unit. Refer to "Evaporating temperature setting method" and the Service Handbook for details.
- \* Raising the evaporating temperature will lower the latent heat processing capability. Select the appropriate mode for the installation location, taking factors such as ambient temperature into consideration.

### 1. Fixed control

The target evaporating temperature is changed and controlled to be constant. Selecting an evaporating temperature that is higher than for normal cooling will reduce the load of the compressor and improve operation efficiency.

#### • Concept of evaporating temperature control (fixed control)



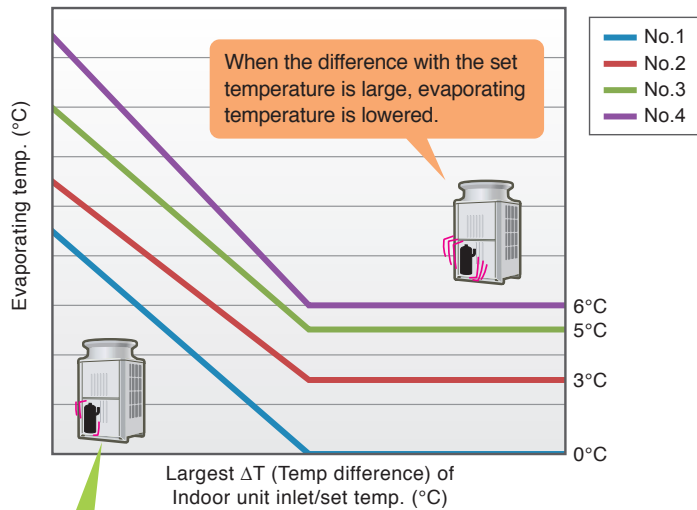
- \* Because evaporating temperature will constantly be higher, cooling capacity is reduced, which may result in the room not reaching the set temperature.
- \* To change the evaporating temperature setting, it is necessary to change the setting of the DIP switch on the outdoor unit.

## 2. Automatic shift control

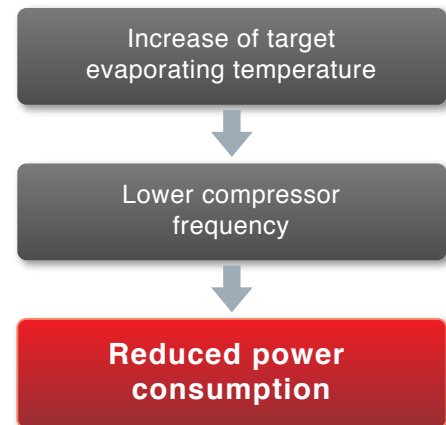
Evaporating temperature is shifted according to the air conditioning load ( $\Delta T$ ). When approaching the set temperature, evaporating temperature is raised to reduce compressor workload and save energy. Four control patterns can be selected.

### • Concept of evaporating temperature control (automatic shift control)

#### 4 patterns for setting target evaporating temperature



Evaporating temperature is raised when approaching the set temperature.

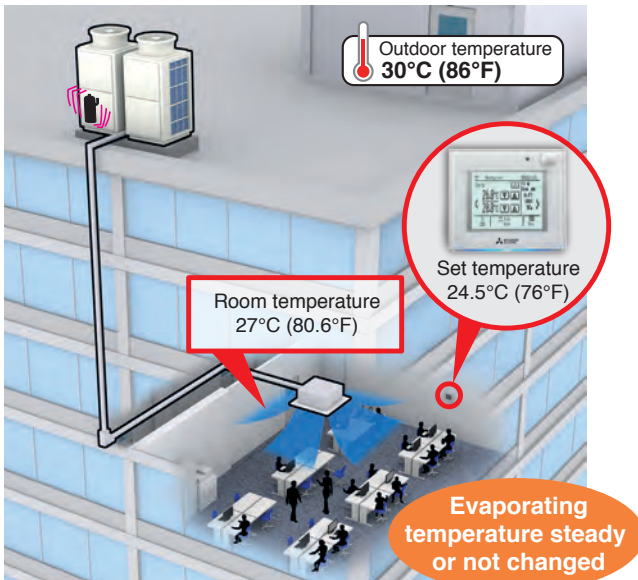


\*1 To activate evaporating temperature control, use terminal external input.

\*2 To change the evaporating temperature setting, it is necessary to change the setting of the DIP switch on the outdoor unit.

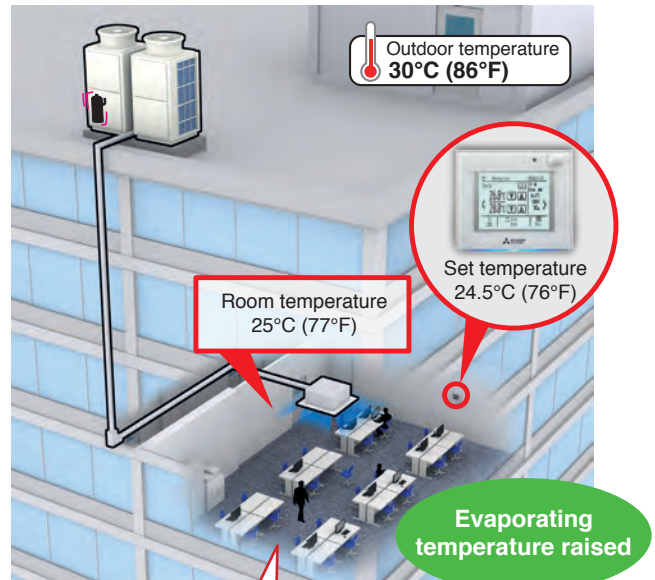
#### High load

At start of operation /  
With many people inside the room



#### Low load

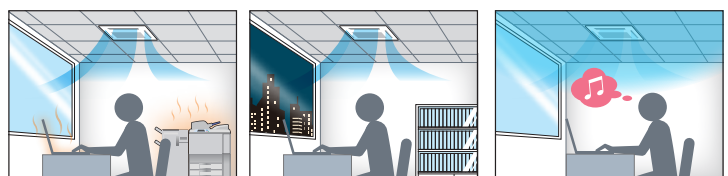
As room temperature approaches  
set temperature



Evaporating temperature is changed according to the difference between room temperature and set temperature.

#### Suitable situations

- (1) Locations with mainly sensible heat load by OA equipment (offices and similar)
- (2) Relatively low-load conditions during air conditioning season (mornings or nights)
- (3) When higher temperature of discharge air is desired in windy conditions



# Cooling capacity at high outdoor air temperatures

## 1. Cooling operation possible up to intake temperature of 52°C

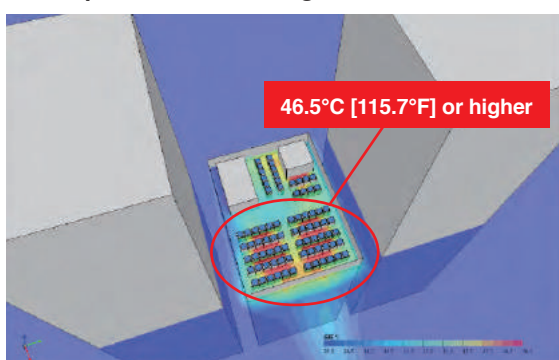


In built-up areas with a high density of buildings, winds may be blocked, causing an accumulation of warm air in the vicinity of the outdoor unit. Because the operation range of the YKD series has been guaranteed up to 52°C (125°F), operation will remain stable even in such situations.

### Example of flow analysis

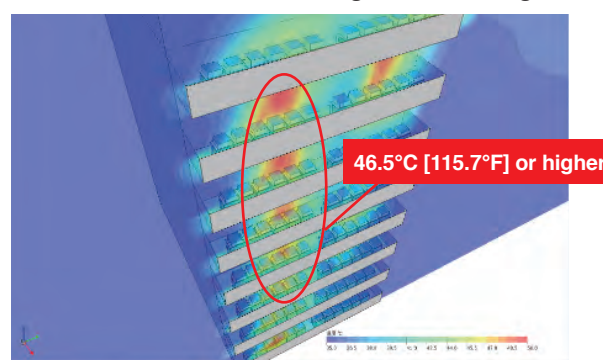
■ Conditions : Outdoor air temperature = 35°C (DB), Room temperature = 27°C (DB)

#### Built-up area with buildings and outdoor units



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

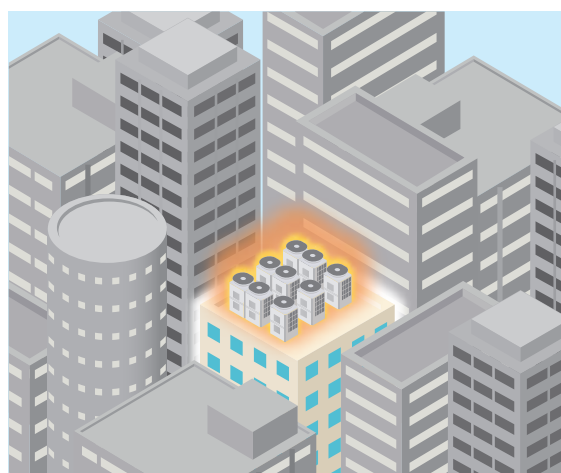
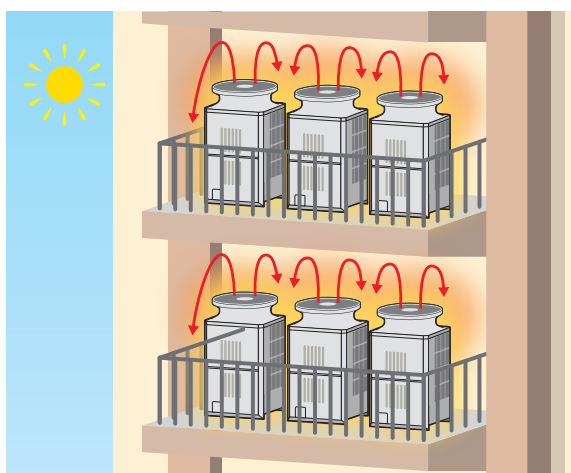
#### Installation on each floor a high-rise building



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

### Suitable situations

Installation in locations such as on balconies or between buildings, where high-temperature air may tend to accumulate.



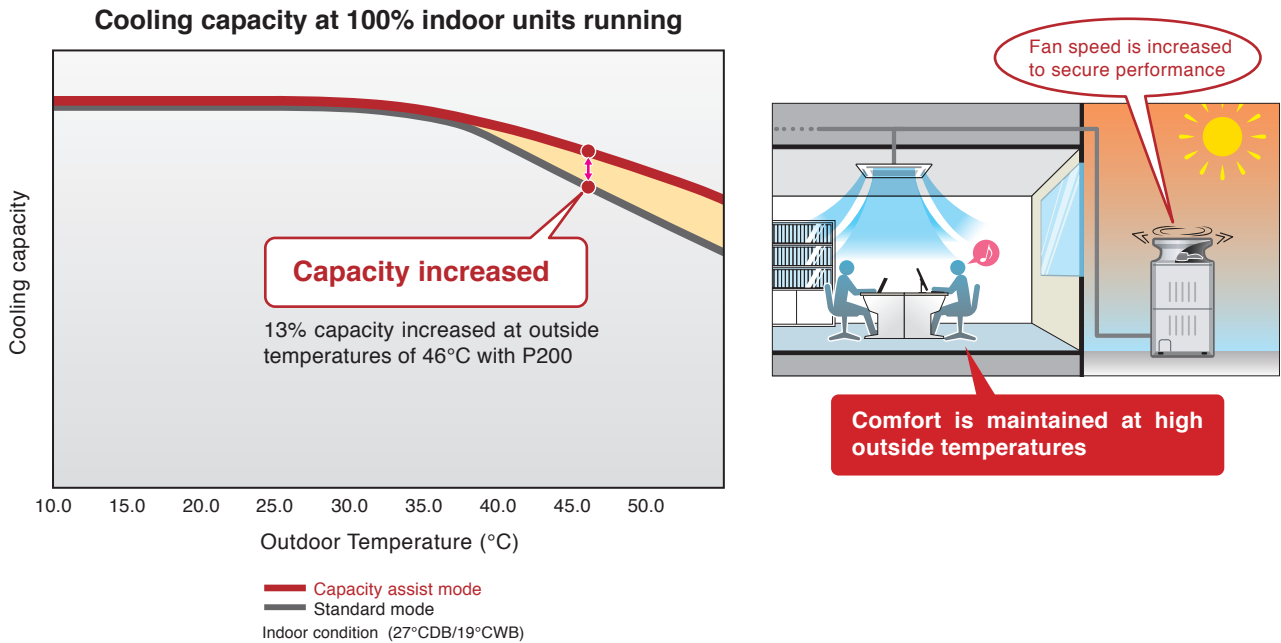
## 2. Cooling operation assist function

### Capacity assist mode

During cooling operation in high outside temperature, cooling capacity tends to be decreased. The YKD series provides capacity assist mode where the fan speed is automatically raised when the outside temperature reaches or exceeds around 38°C. This prevents a drop in cooling capacity during operation at high outside air temperatures. Comfort is improved, thanks to continued high performance of the unit.

\* Requires a DIP switch setting

\* This function will be disabled when the unit is set to the outdoor high static pressure setting or to the night mode setting. The outdoor unit will make more noise due to an increased airflow. Choose the mode according to installation requirements.

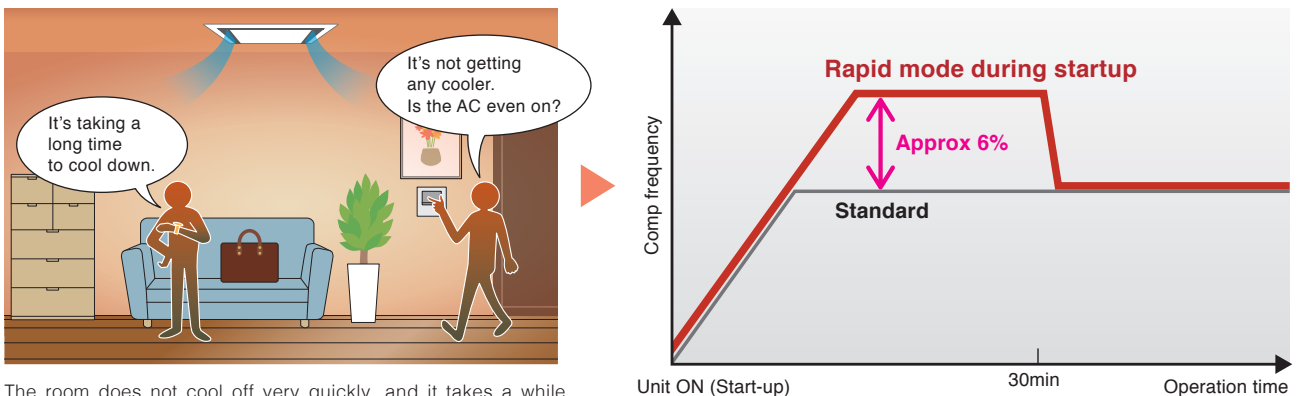


### Rapid mode during startup (Quick-start up)

The rotation speed of the compressor can be raised during the first 30 minutes after cooling startup, to quickly establish comfortable conditions when returning home or at the start of a workday. Restarting after a power outage will also be faster, to quickly cool down the room.

\* Requires a DIP switch setting

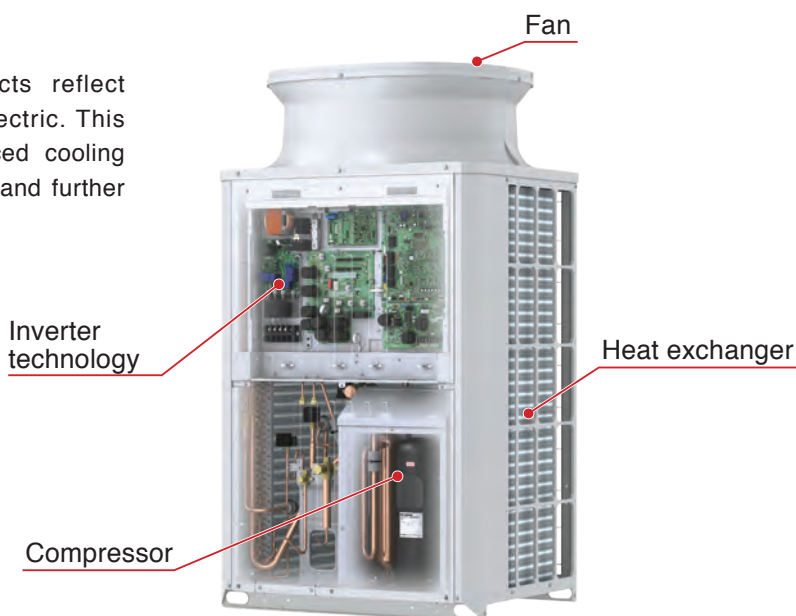
\* Selecting this mode may increase operation noise. Choose the mode according to installation requirements.



The room does not cool off very quickly, and it takes a while before the room becomes comfortable.



All major parts of YKD series products reflect technological excellence of Mitsubishi Electric. This results in high energy efficiency, enhanced cooling capacity at high outside air temperatures, and further improved reliability.



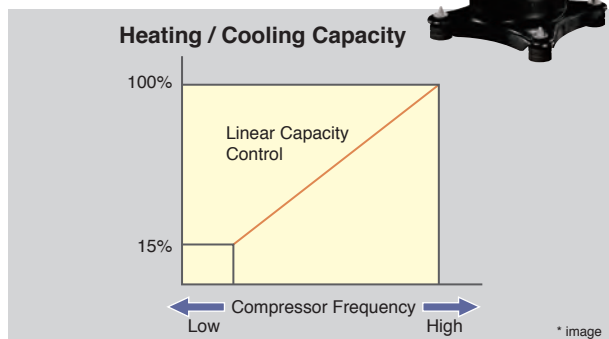
As a manufacturer of general electric equipment, our inverter-related components are developed and manufactured using Mitsubishi Electric technology.

**All compressors are inverter-driven type and developed and manufactured by Mitsubishi Electric**



The compressor varies its speed to match the indoor cooling or heating demand, thus it only consumes the energy amount of energy required.

When an inverter driven system is operating at partial load, the energy efficiency of the system is significantly higher than that of a standard fixed speed, non inverter system. The fixed speed system can only operate at 100%, although full load condition is not prevailed all time. Therefore, fixed speed systems cannot match the annual efficiency of inverter driven systems.



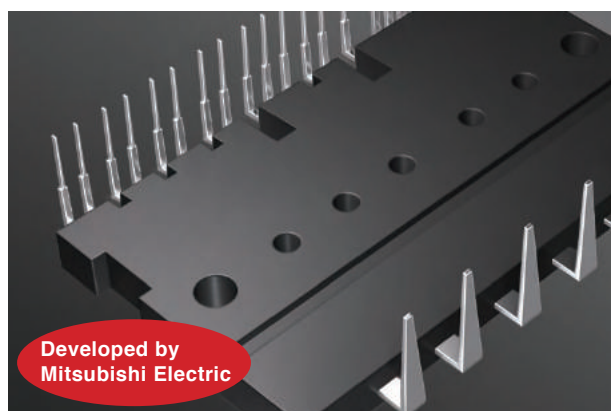
\* Values vary depending on actual conditions, such as ambient temperature.

**Intelligent Power Module (IPM) manufactured by Mitsubishi Electric**



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. Furthermore, a specialized drive circuit that ensures excellent performance make a high-quality, high-performance inverter possible .

**IPM technology ensures effective operation even at lower partial load and realizes automatic control to operate the air conditioners appropriately according to the situation, resulting in energy savings.**





## Multi-port mechanism

In addition to the conventional discharge port, the new series features two sub-ports, which performs according to the air conditioning load. This prevents excessive compression and improves operation efficiency.

### Conventional structure

		Operation pattern	
		Partial load	Rating, high pressure difference
Main port	Valve 1	Open	Open

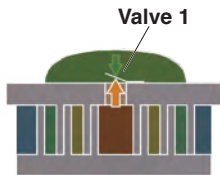
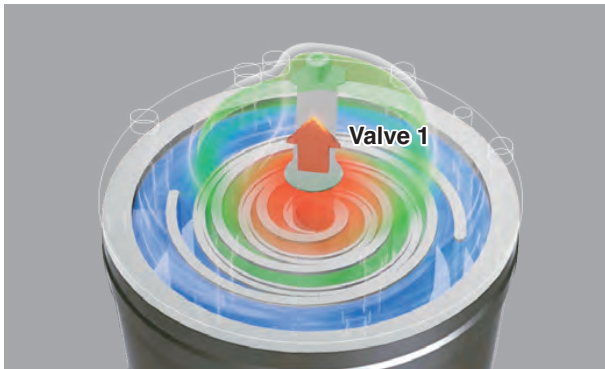
### New structure with multi-port design

		Operation pattern	
		Partial load	Rating, high pressure difference
Main port	Valve 1	Open	Open
Sub-port	Valve 2/3	Open	Closed

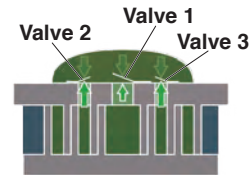
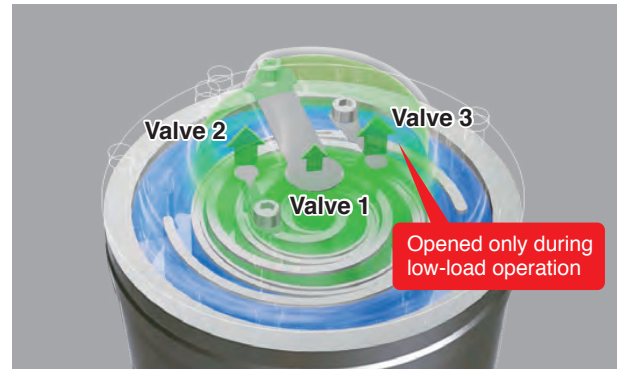
The sub-port is opened during partial load operation to discharge the over-compressed gas.

### In case of partial load operation

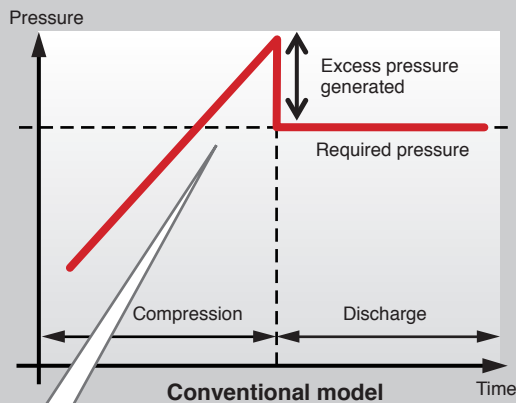
#### Conventional structure



#### New structure with multi-port design



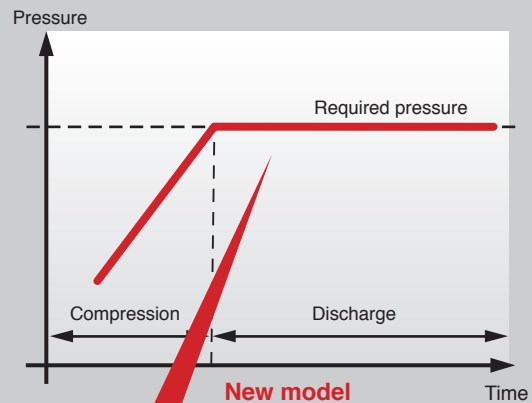
#### ■ Concept of refrigerant pressure (during partial-load operation, etc.)



#### Conventional model

Because there is only one discharge port, compression capacity is first raised regardless of load, and then lowered to the target discharge pressure. This results in operation loss due to over-compression.

#### ■ Concept of refrigerant pressure



#### Multi-port

When the target discharge pressure is reached, the multi-ports are opened to release refrigerant gas. This reduces operation loss due to over-compression.

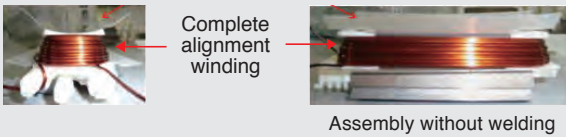





## Snap-in core

Mitsubishi Electric has incorporated a new and original production process that wraps a conductor directly around the split core to create a compact and highly efficient motor.

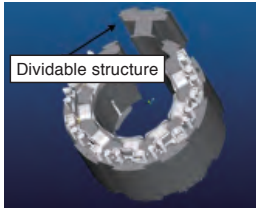
**Feature 1: Coils wound around each core**



**Feature 2: Snap-in core**




**Compressor motor**




Dividable structure

Snap-in core



Cross section **Density: high**

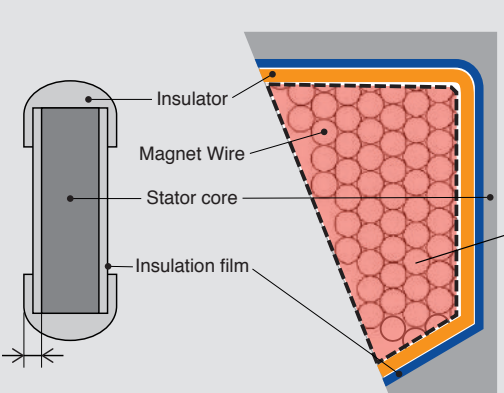


## Improved high-efficiency motor

\*Except for models using PUCY-P200-350 YKD module.

Whereas the motor core of the conventional model had dead space between the insulator and insulation film, the YKD model has a smaller insulator with film on the inside. Consequently, the area for copper wire winding has increased by 9%. The wire diameter also was increased by two sizes, resulting in lower resistance and reduced insulation distance. This boosts motor efficiency, thus also improving compressor efficiency.


**YKA-Series**



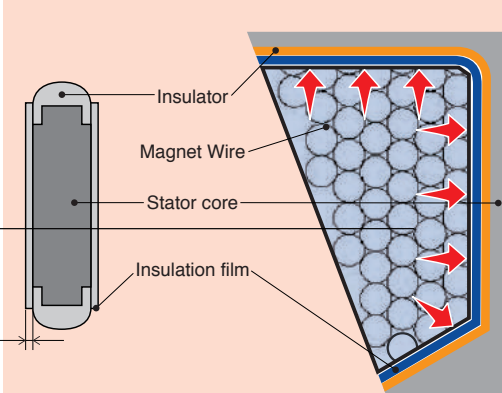
Insulator  
Magnet Wire  
Stator core  
Insulation film

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

**Increase in area available for winding**



**YKD-Series**



Insulator  
Magnet Wire  
Stator core  
Insulation film

Former insulator section now enables the use of larger gauge copper wire.

## IH (induction heating) warmer

In order to prevent refrigerant and oil from mixing while the air conditioner is stopped, it is necessary to always warm the compressor. Mitsubishi Electric provides the required heating by energizing the windings of the compressor (using a voltage that does not drive the compressor motor) instead of a belt type heater that applies heat from the outside, resulting in reduced loss and lower power consumption. In addition, remains on for 30 minutes after operation is stopped, and subsequently is switched on and off every 30 minutes. Standby power consumption therefore is lower than with a belt heater that is constantly powered.

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

IH warmer (without crankcase heater)



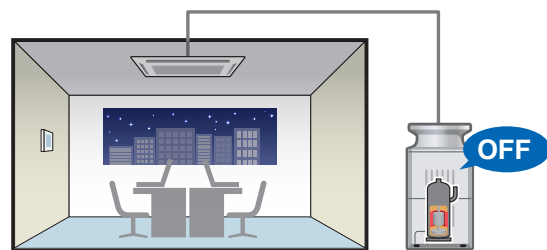
### Operation during air conditioner stop

On/off is repeated every 30 minutes



Crankcase heater not required

Standby power consumption can be reduced when the air conditioner is stopped overnight in offices or other locations.



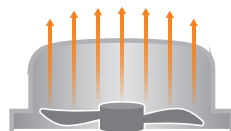
Internal heating reduces power consumption during standby. This provides an advantage over designs that are constantly powered.



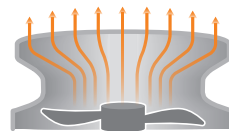
## Bell-mouth shape design realizes higher air discharge efficiency

This design reduces the fan input value and contributes to energy savings. In addition, more efficient air discharge improves stability during operation at high outside air temperatures.

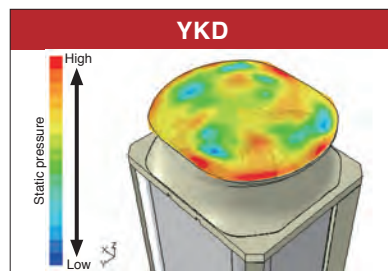
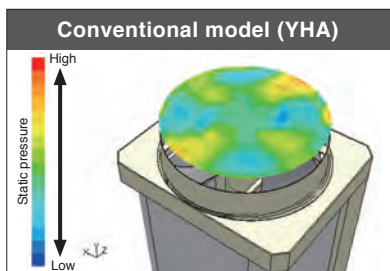
Conventional model(YHA)



YKD



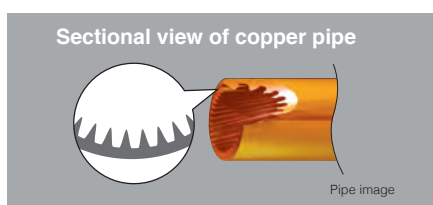
Air is expelled with higher efficiency by temporarily accumulating at the bottom of the bell-mouth shape.



The change of the bell-mouth shape has realized energy saving operation by improving the static pressure while discharging air.



## Grooves are formed in the copper pipe to improve the heat exchange performance.



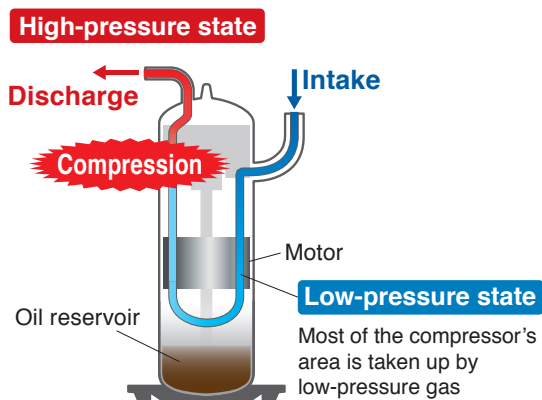
The grooved structure in the copper pipe of the heat exchanger increases the heat exchange area to contact with refrigerant.

# High reliability

## 1. Compressor

Liquid and gas refrigerants are separated beforehand by the accumulator to prevent liquid refrigerant from flowing into the compressor. Moreover, compressor structure is filled with low-pressure gas refrigerant. If liquid backflow occurs, the liquid will not enter the scroll of the compressed part directly.

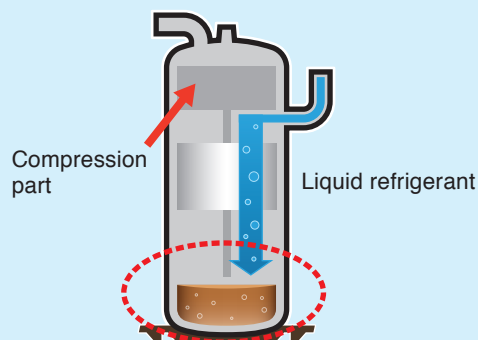
### Low-pressure shells



Cross section of compressor

Most of the area in the compressor is taken up by the low-pressure gas. This prevents the motor and bearings from being heated up by the compressed high-pressure gas. The refrigerant is collected at the bottom of the shell to reduce the rate of compressor damage caused by liquid refrigerant compression.

### When liquid backflow has occurred



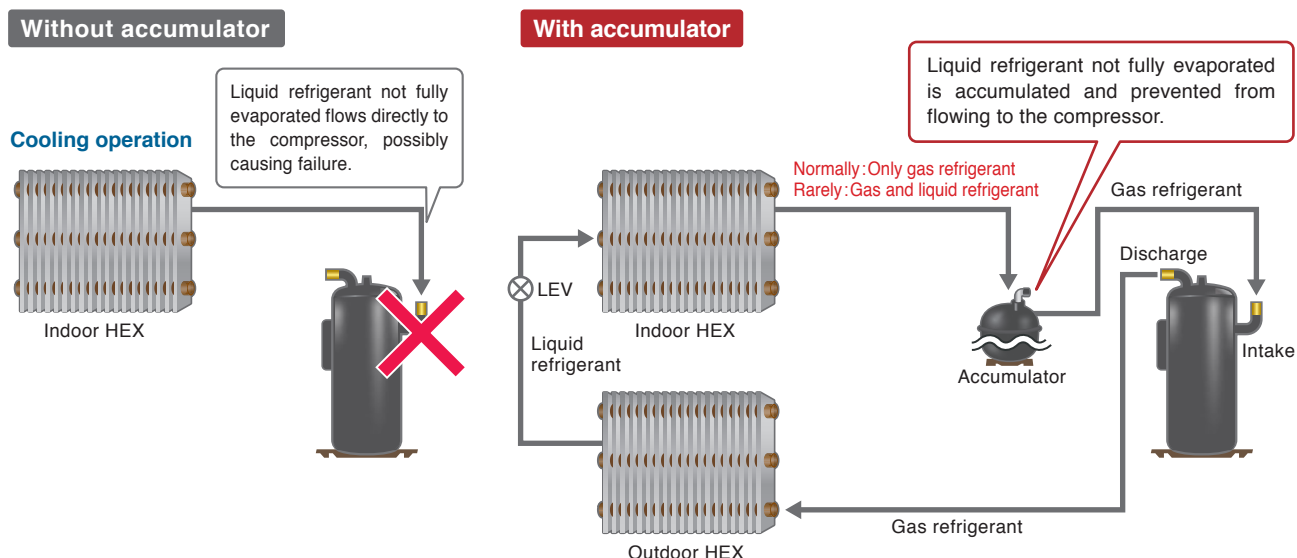
Liquid refrigerant goes to bottom part firstly

Liquid refrigerant doesn't go to compression part directly so that compressor itself is protected from malfunction due to liquid back .

### Accumulator for preventing liquid backflow

When the refrigerant is not completely evaporated by the evaporator, it may remain as a liquid, flowing back into the compressor and causing liquid compression, which poses the risk of serious damage to the compressor. To counter this problem, Mitsubishi Electric uses an accumulator placed between the evaporator and the compressor to separate the liquid refrigerant.

\* Adding too much refrigerant will cause excess refrigerant to accumulate in the accumulator, resulting in liquid back flow. Be sure to add only the proper amount of refrigerant.



## Operation with one compressor up to 20HP.

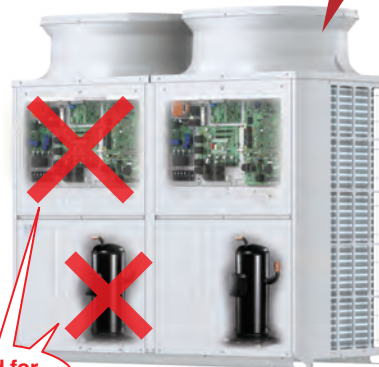


Outdoor units can be operated by one compressor, which contributes to improve service with less refrigerant piping work and components.

### 1 compressor model



S module



Lower number of required key parts reduces maintenance requirements

No need for our model

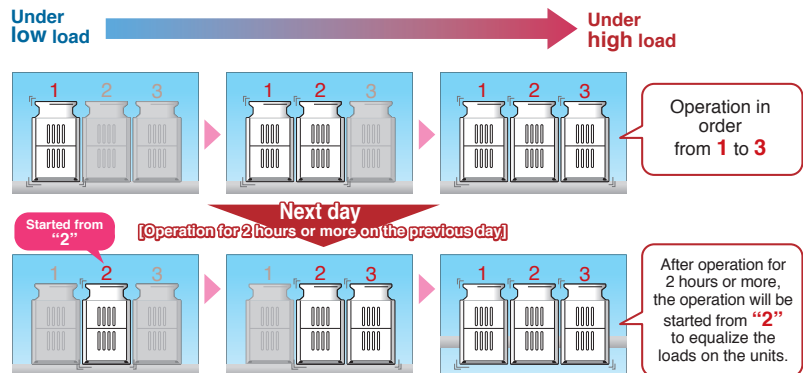
XL module

## Rotation control



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

After operation for 2 hours or more, the next operation will be started from the outdoor unit "2." The unit to be started first is changed to equalize the operating time of the units.

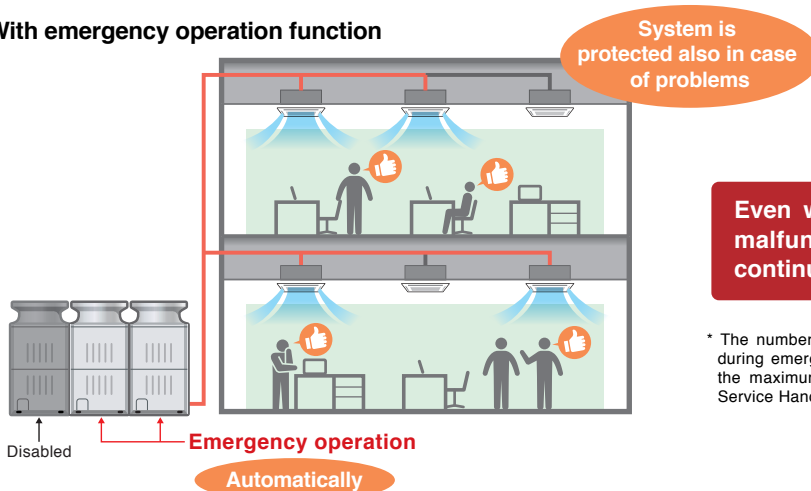


## Emergency operation mode



Emergency operation is possible with the indoor unit's remote control. With the combination model, if there is at least one module that can operate normally, the other outdoor unit temporarily performs emergency operation.

### With emergency operation function



Even when one unit has fallen in a malfunction, other outdoor units continue to operate.

\* The number of indoor units that can continue to operate during emergency operation is limited. For information on the maximum total capacity of indoor units, refer to the Service Handbook for the outdoor unit.

# High reliability

## 2. Electric parts

### Allowable operating up to $\pm 10\%$ voltage range

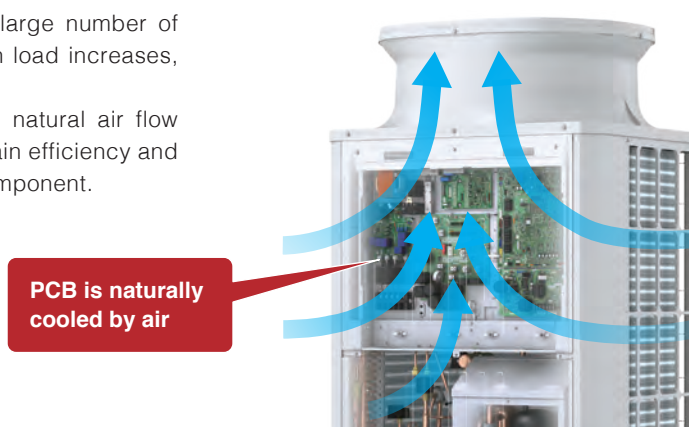
Operation of this model is guaranteed even for voltages up to 10% more or less than the indicated allowable voltage.



### Naturally cooled PCB (Print circuit board)

PCBs (printed circuit boards) carry a large number of electronic components. When operation load increases, suitable cooling measures are required.

Mitsubishi Electric places PCBs in the natural air flow path which enables air cooling to maintain efficiency and improve reliability of each electronic component.



### Access from front panel

Electrical parts are concentrated in the upper part of the panel which can be opened for easy replacement of PCBs if required.

Because the compressor is located in the lower right when the panel is opened, the service technician can easily perform maintenance from the front.



\* Arrange a qualified technician for maintenance or service.

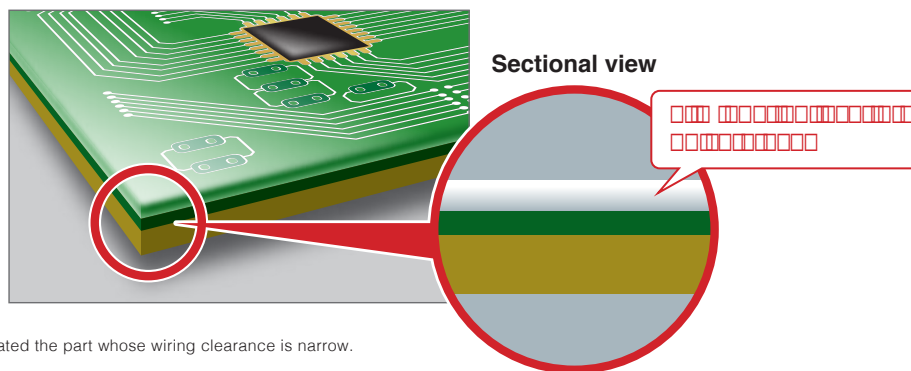
### 3. Corrosion resistance

Even in installation environments near coastal areas, Mitsubishi Electric products reduce the effects of corrosion due to salt damage by using a special coating designed for outdoor units.

\* Effectiveness varies depending on the installation location.

#### Film coating on PCB (Print circuit board)

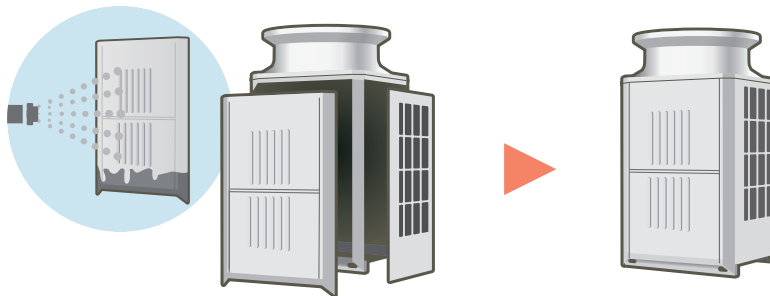
The printed circuit boards are protected by a film coating of polyurethane that covers the entire board to ensure resistance against salt corrosion.



\* Standard model is only coated the part whose wiring clearance is narrow.

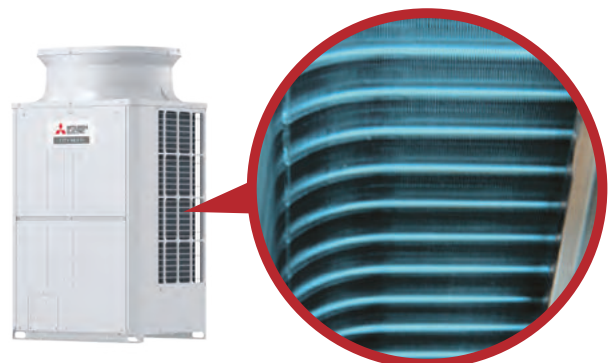
#### Polyester coated sheet

To prevent corrosion of the unit even in locations subject to the influence of sea breezes, the outdoor units are made with polyester coated steel sheets compliant with the JRA 9002 standard. The panel coating is used both on standard models and BS models, while BS models also include a thicker coating.



#### Fin treatment on heat exchanger

The anti-corrosion fin treatment on the heat exchanger is especially effective in urban environments where traffic pollutions can damage the aluminum fins, reducing the capacity and life expectancy of the unit. All YKD series feature this Fin treatment.



# High reliability

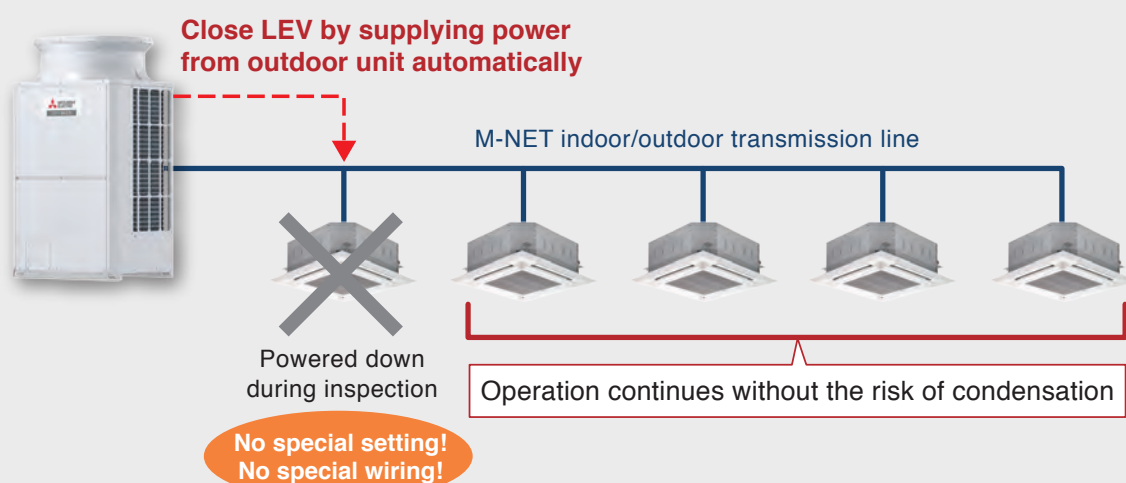
## 1. Operation support function

Without requiring any special settings or control steps, Mitsubishi Electric's original M-NET system enables other indoor units to continue operation even when one unit has stopped due to malfunction.

\* Support for PUMY models available.

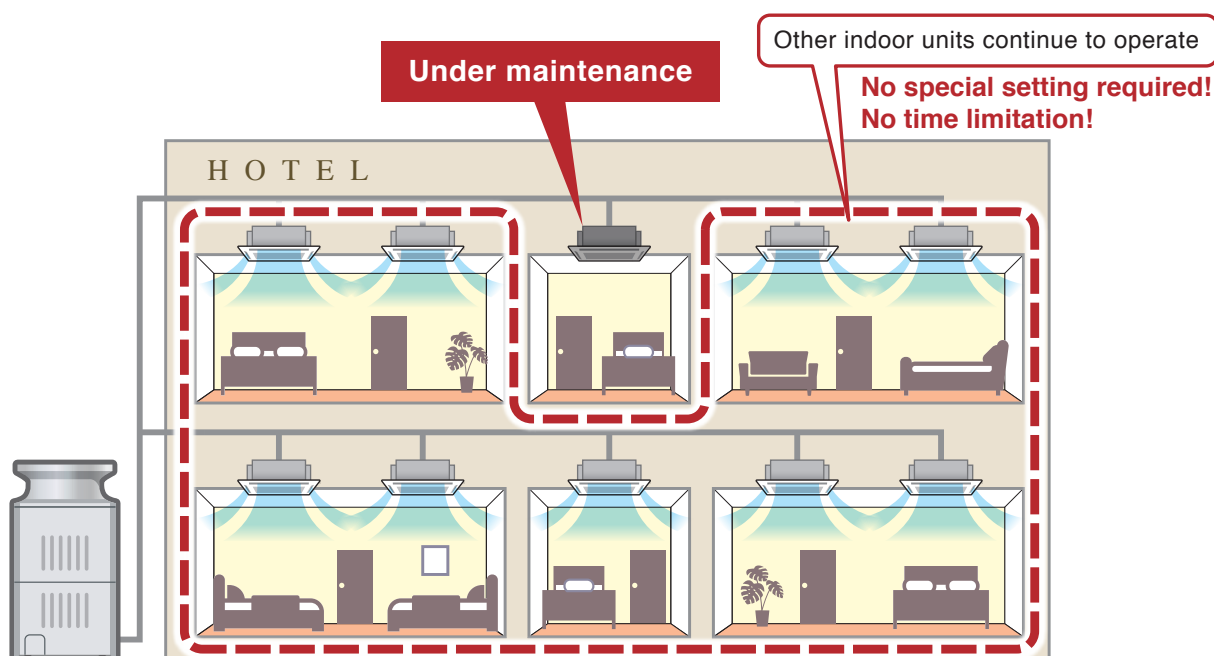
### With M-NET indoor/outdoor unit communication function (CITY MULTI)

Because Mitsubishi Electric's M-NET transmission line can also supply power, it is possible to close the LEV of indoor units that has caused problem through control command from outdoor unit. This eliminates the risk of condensation and enables the other units to keep working.



### For hotel application

Even if the system in one guest room cannot be used, air conditioning in other rooms does not need to be shut down, allowing business to continue.

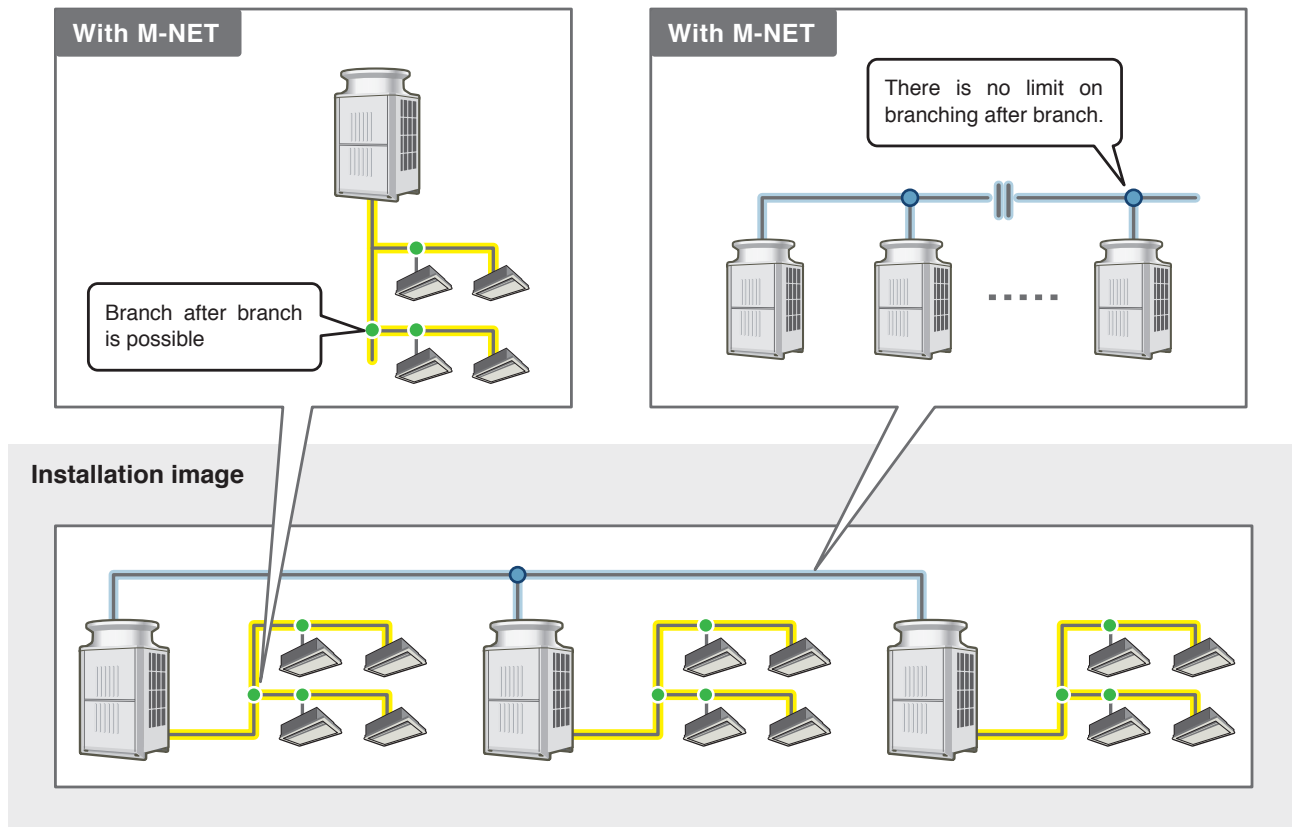


# High installation flexibility

## 1. Flexible wiring design

### Flexible M-NET design

The total wiring length of the original M-NET system connecting the CITY MULTI units of Mitsubishi Electric is unlimited. The system also supports multiple branching levels which greatly increases design flexibility for various buildings.

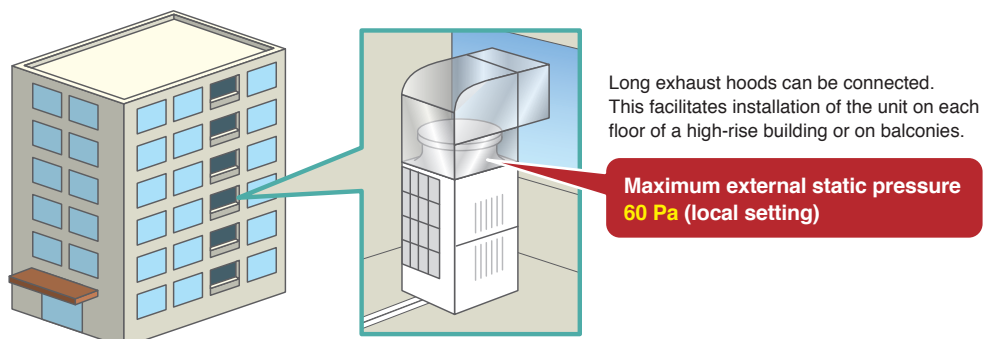


\* The maximum power-supply distance of M-NET communication is 200 meters, a booster unit is required over 200 meters. Regarding maximum distance to the farthest device, please refer to "Explanatory material for M-NET 1000 m."

## 2. Flexible external static pressure setting

### Selectable external static pressure of the outdoor unit

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

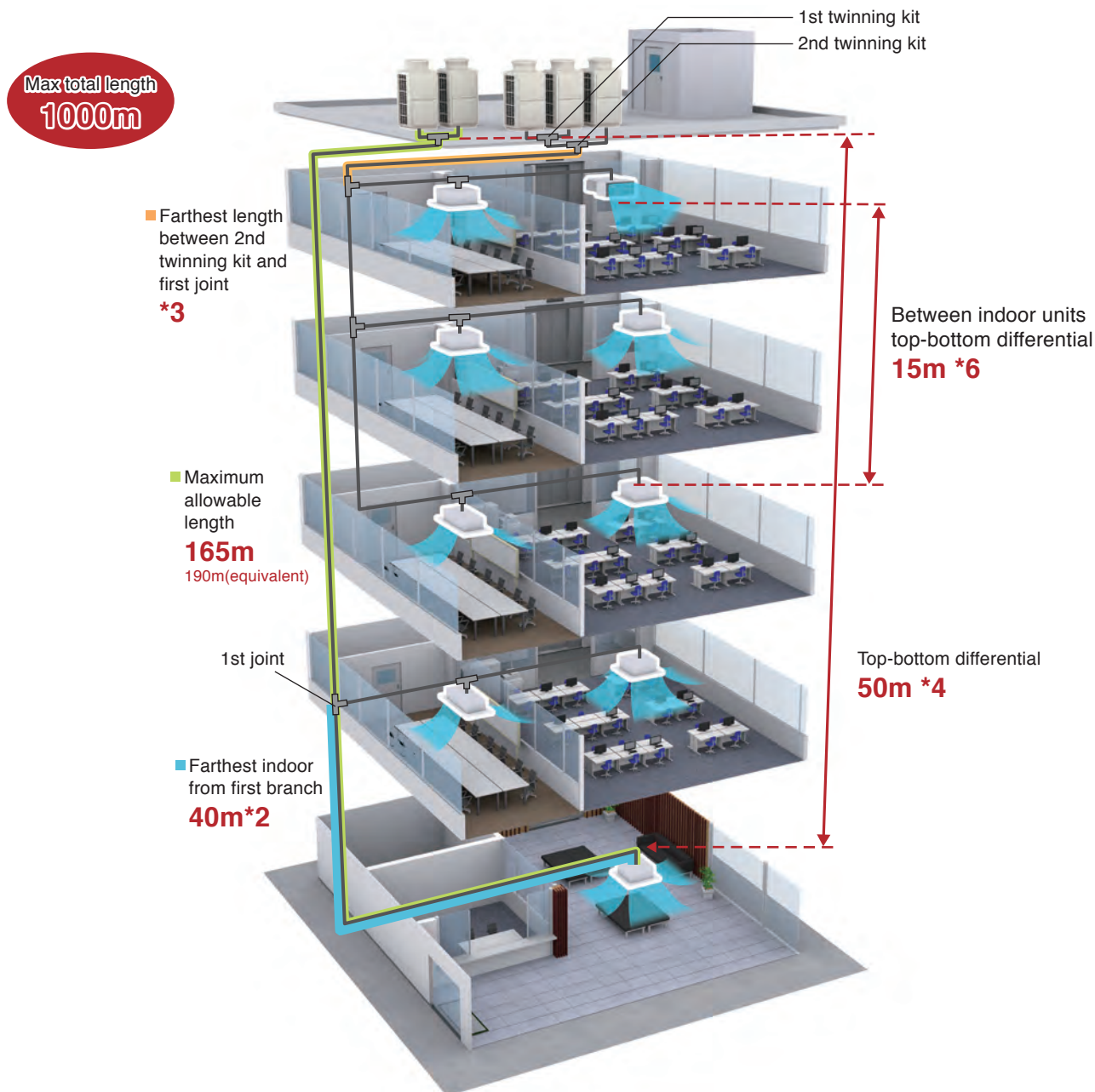




# High installation flexibility

## 3. Long piping length

Piping design also provides the flexibility to match the requirements of various buildings. With CITY MULTI, even large-scale building installations are no problem.



Refrigerant Piping Lengths	Maximum meters [feet]
Total length	1,000 [3,280]*1
Maximum allowable length	165 (190 equivalent) [541 (623)]
Farthest indoor from first branch	40 [131]*2
Farthest length between 2nd twinning kit and first joint	*3

Vertical differentials between units	Maximum meters [feet]
Indoor/outdoor (outdoor higher)	50 [164]*4
Indoor/outdoor (outdoor lower)	40 [131]*5
Indoor/indoor	15 [49]*6

\*1 The maximum total piping length in systems with model units P1400 through P1500 800 m [2625 ft.].  
 \*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point.  
 [for PUCY-P-YKD(-BS) / PUCY-EP-YKD(-BS)]  
 \*3 In systems with model units P1400 through P1500, pipe length restrictions apply to the main pipes as follows:  
 P1400: 110 m [360 ft.] max.  
 P1450: 90 m [295 ft.] max.  
 P1500: 60 m [197 ft.] max.  
 \*4 Depending on the model and installation conditions, top-bottom differential 90m [295ft.]. For more detailed information, please contact your nearest sales office or distributor.  
 \*5 4 m [13 ft.] or less in cooling at outdoor temperature 10°C [50°F] or lower for heat pump series.  
 \*6 30m is available. If the height difference between indoor units exceeds 15 m [49 ft.] (but does not exceed 30 m [98 ft.]), use pipes that are one size larger for indoor unit liquid pipes.  
 [for PUCY-P-YKD(-BS) / PUCY-EP-YKD(-BS)]

# Other useful information

## Low noise mode (night mode)

This mode reduces noise by limiting the compressor frequency and the number of rotations made by the outdoor fan.

The user can select their preferred level.

- \* Cooling/heating capacity drops significantly during low-noise mode operation. During cooling operation, please use this mode under a situation which there is a substantial capacity such as at night.
- \* This function can be set by change of dip switch.



### PUCY-P200YKD

standard 57dB



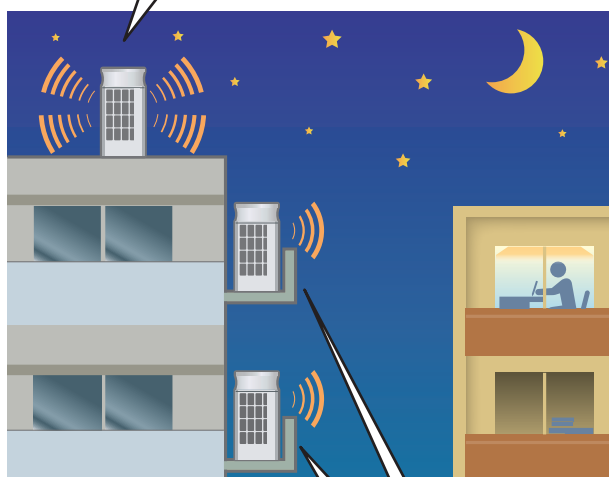
Low noise mode

\* Operation noise may increase due to the installation environment or the operation status.

- Increased adaptability and model selection range for buildings where low noise is essential
- Low noise mode can also be selected after delivery using DIP switches

**Changing low noise mode to suit the installation location allows adaptation to the surrounding environment.**

Outdoor unit installed on roof operates in standard mode



Outdoor unit installed on balconies operate in low noise mode



□□□□□□

Low noise mode can be scheduled from the Web browser of AE-200E by connecting the PC.

OUTDOOR UNIT

**YKD-series - Cooling-only**

**PUCY-P YKD (-BS)**



**Specifications**

Model		PUCY-P200YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P300YKD (-BS)	PUCY-P350YKD (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	22.4	28.0	33.5	40.0	
	BTU/h	76,400	95,500	114,300	136,500	
	Power input kW	4.66	5.95	7.82	9.66	
	Current input A	7.8-7.4-7.2	10.0-9.5-9.1	13.2-12.5-12.0	16.3-15.4-14.9	
EER		kW/kW 4.80	4.70	4.28	4.14	
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
	Model/Quantity	P15~P250/1~17	P15~P250/1~21	P15~P300/1~26	P15~P300/1~30	
Sound pressure level (measured in anechoic room)	dB <A>	57	58	61	61	
Refrigerant piping diameter	Liquid pipe mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)	12.7 (1/2) Brazed	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
Fan	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m <sup>3</sup> /min	175	175	175	210
		L/s	2,917	2,917	2,917	3,500
		cfm	6,179	6,179	6,179	7,415
	Control, Driving mechanism	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	
Motor output kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1		
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	
	Starting method	Inverter	Inverter	Inverter	Inverter	
	Motor output kW	5.5	6.9	8.1	10.4	
	Case heater kW	-	-	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	
	in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
Refrigerant	Type x original charge	R410A x 5.5 kg (13 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight	kg (lbs)	174 (384)	183 (404)	200 (441)	236 (521)	
Heat exchanger		Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	
Optional parts		Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Energy Labelling scheme						

**Notes:**

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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




## OUTDOOR UNIT

## YKD-series - Cooling-only

## PUCY-P YKD (-BS)



## Specifications

Model		PUCY-P400YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P500YKD (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	44.0	48.0	56.0	
	BTU/h	150,100	163,800	191,100	
	Power input kW	12.42	14.32	16.51	
	Current input A	20.9-19.9-19.1	24.1-22.9-22.1	27.8-26.4-25.5	
	EER kW/kW	3.54	3.35	3.39	
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
	Model/Quantity	P15~P400/1~34	P15~P400/1~39	P15~P500/1~43	
Sound pressure level (measured in anechoic room)	dB <A>	63	63	65	
Refrigerant piping diameter	Liquid pipe mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Fan	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2	
	Air flow rate	m <sup>3</sup> /min	210	210	320
		L/s	3,500	3,500	5,333
		cfm	7,415	7,415	11,299
	Control, Driving mechanism	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	
Motor output kW	0.92 x 1	0.92 x 1	0.92 x 2		
Compressor	*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
	Type	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	
	Starting method	Inverter	Inverter	Inverter	
	Motor output kW	10.8	12.4	13.3	
Case heater kW	-	-	-		
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
External dimension H x W x D	mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,750 x 740	
	in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 68-15/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
Refrigerant	Type x original charge	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	
Net weight	kg (lbs)	236 (521)	236 (521)	304 (671)	
Heat exchanger		Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	
Optional parts		Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Energy Labelling scheme					

## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

OUTDOOR UNIT

**YKD-series - Cooling-only**

**PUCY-P YSKD (-BS)**



**Specifications**

Model		PUCY-P550YSKD (-BS)	PUCY-P600YSKD (-BS)	PUCY-P650YSKD (-BS)
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	61.5	68.0	72.0
	BTU/h	209,800	232,000	245,700
	Power input kW	14.04	15.34	17.73
	Current input A	23.7-22.5-21.7	25.8-24.6-23.7	29.9-28.4-27.4
	EER kW/kW	4.38	4.43	4.06
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity	P15~P500/1~47	P15~P600/1~50	P15~P600/1~50
Sound pressure level (measured in anechoic room)	dB <A>	63	63	64.5
Refrigerant piping diameter	Liquid pipe mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

**Set Model**

Model		PUCY-P250YKD (-BS)	PUCY-P300YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P400YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	175	175	175	210	175	210
		L/s	2,917	2,917	2,917	3,500	2,917	3,500
		cfm	6,179	6,179	6,179	7,415	6,179	7,415
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		
Motor output kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output kW	6.9	8.1	6.9	10.4	6.9	10.8	
	Case heater kW	-	-	-	-	-	-	
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	
	in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
Refrigerant	Type x original charge	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight	kg (lbs)	183 (404)	200 (441)	183 (404)	236 (521)	183 (404)	236 (521)	
Heat exchanger		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	15.88 (5/8) Brazed	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Energy Labelling scheme								

**Notes:**

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

## OUTDOOR UNIT

## YKD-series - Cooling-only

## PUCY-P YSKD (-BS)



## Specifications

Model		PUCY-P700YSKD (-BS)	PUCY-P750YSKD (-BS)	PUCY-P800YSKD (-BS)
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	76.0	81.5	88.0
	BTU/h	259,300	278,100	300,300
	Power input kW	19.24	21.79	25.00
	Current input A	32.4-30.8-29.7	36.7-34.9-33.6	42.2-40.0-38.6
	EER kW/kW	3.95	3.74	3.52
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity	P15~P600/1~50	P15~P600/1~50	P15~P600/1~50
Sound pressure level (measured in anechoic room)	dB <A>	64.5	65.5	66
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

## Set Model

Model		PUCY-P250YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P300YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P400YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m <sup>3</sup> /min	175	210	175	210	210	210
		L/s	2,917	3,500	2,917	3,500	3,500	3,500
		cfm	6,179	7,415	6,179	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
*2 Motor output kW		0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
Compressor	External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
	Type	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output kW	6.9	12.4	8.1	12.4	10.8	10.8	
	Case heater kW	-	-	-	-	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	
	in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
Refrigerant	Type x original charge	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight	kg (lbs)	183 (404)	236 (521)	200 (441)	236 (521)	236 (521)	236 (521)	
Heat exchanger		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe mm (in.)	9.52 (3/8) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		

## Energy Labelling scheme



## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

OUTDOOR UNIT

**YKD-series - Cooling-only**

**PUCY-P YSKD (-BS)**



**Specifications**

Model		PUCY-P850YSKD (-BS)	PUCY-P900YSKD (-BS)	PUCY-P950YSKD (-BS)
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	92.0	96.0	104.0
	BTU/h	313,900	327,600	354,800
	Power input kW	26.97	29.00	31.51
	Current input A	45.5-43.2-41.6	48.9-46.5-44.8	53.1-50.5-48.7
Temp. range of cooling	EER kW/kW	3.41	3.31	3.30
	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
Indoor unit connectable	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
Sound pressure level (measured in anechoic room)	Model/Quantity	P15~P600/1~50	P15~P600/1~50	P15~P600/1~50
	dB <A>	66	66	67.5
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

**Set Model**

Model		PUCY-P400YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P500YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2	
	Air flow rate	m³/min	210	210	210	210	210	320
		L/s	3,500	3,500	3,500	3,500	3,500	5,333
		cfm	7,415	7,415	7,415	7,415	7,415	11,299
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		
Motor output kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 2		
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output kW	10.8	12.4	12.4	12.4	12.4	13.3	
	Case heater kW	-	-	-	-	-	-	
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension H x W x D	mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,750 x 740	
	in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 68-15/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
Refrigerant	Type x original charge	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	
Net weight	kg (lbs)	236 (521)	236 (521)	236 (521)	236 (521)	236 (521)	304 (671)	
Heat exchanger		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Energy Labelling scheme								

**Notes:**

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

OUTDOOR UNIT

YKD-series - Cooling-only

PUCY-P YSKD (-BS)



Specifications

Model	PUCY-P1000YSKD (-BS)		PUCY-P1050YSKD (-BS)		PUCY-P1100YSKD (-BS)	
Power source	3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	112.0	115.0	121.5	
		BTU/h	382,100	392,400	414,600	
	Power input	kW	34.04	29.63	30.99	
	Current input	A	57.4-54.5-52.6	50.0-47.5-45.8	52.3-49.7-47.9	
	EER	kW/kW	3.29	3.88	3.92	
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	
	Outdoor	D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
	Model/Quantity		P15~P600/1~50	P15~P600/1~50	P15~P600/1~50	
Sound pressure level (measured in anechoic room)	dB <A>		68	66.5	66.5	
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	

Set Model

Model	PUCY-P500YKD (-BS)		PUCY-P500YKD (-BS)		PUCY-P300YKD (-BS)		PUCY-P300YKD (-BS)		PUCY-P450YKD (-BS)		PUCY-P300YKD (-BS)		PUCY-P350YKD (-BS)		PUCY-P450YKD (-BS)		
Fan	Type x Quantity	Propeller fan x 2		Propeller fan x 2		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m³/min	320	320	175	175	210	175	210	175	210	175	210	175	210	175	210
		L/s	5,333	5,333	2,917	2,917	3,500	2,917	3,500	2,917	3,500	2,917	3,500	2,917	3,500	2,917	3,500
		cfm	11,299	11,299	6,179	6,179	7,415	6,179	7,415	6,179	7,415	6,179	7,415	6,179	7,415	6,179	7,415
	Control, Driving mechanism	Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor							
Motor output	kW	0.92 x 2	0.92 x 2	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type	Inverter scroll hermetic compressor				Inverter scroll hermetic compressor				Inverter scroll hermetic compressor							
	Starting method	Inverter		Inverter		Inverter		Inverter		Inverter		Inverter		Inverter		Inverter	
	Motor output	kW	13.3	13.3	8.1	8.1	12.4	8.1	10.4	8.1	10.4	12.4	8.1	10.4	12.4	8.1	10.4
	Case heater	kW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>								
External dimension H x W x D	mm	1,650 x 1,750 x 740	1,650 x 1,750 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	
	in.	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)							
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection				Over-heat protection, Over-current protection				Over-heat protection, Over-current protection							
Refrigerant	Type x original charge	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	
	Net weight	kg (lbs)	304 (671)	304 (671)	200 (441)	200 (441)	236 (521)	200 (441)	236 (521)	200 (441)	236 (521)	200 (441)	236 (521)	200 (441)	236 (521)	200 (441)	236 (521)
Heat exchanger	Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube								
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	12.7 (1/2) Brazed	
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	
Optional parts	Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G				Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G				Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G								
Energy Labelling scheme																	

Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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



OUTDOOR UNIT

**YKD-series - Cooling-only**

**PUCY-P YSKD (-BS)**



**Specifications**

Model		PUCY-P1150YSKD (-BS)	PUCY-P1200YSKD (-BS)
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	128.0	132.0
	BTU/h	436,700	450,400
	Power input kW	33.95	37.50
	Current input A	57.3-54.4-52.4	63.3-60.1-57.9
	EER kW/kW	3.77	3.52
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity	P15~P600/1~50	P15~P600/1~50
Sound pressure level (measured in anechoic room)	dB <A>	67.5	68
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

**Set Model**

Model		PUCY-P350YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P400YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	210	210	210	210	210	210
		L/s	3,500	3,500	3,500	3,500	3,500	3,500
		cfm	7,415	7,415	7,415	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
*2 Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
Compressor	*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type	Inverter scroll hermetic compressor			Inverter scroll hermetic compressor			
	Starting method	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output kW	10.4	10.8	10.8	10.8	10.8	10.8	
Case heater	kW	-	-	-	-	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension H x W x D	mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	
	in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection			Over-heat protection, Over-current protection			
Refrigerant	Type x original charge	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight	kg (lbs)	236 (521)	236 (521)	236 (521)	236 (521)	236 (521)	236 (521)	
Heat exchanger		Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	Liquid pipe mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			
Energy Labelling scheme								

**Notes:**

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

## OUTDOOR UNIT

## YKD-series - Cooling-only







## PUCY-P YSKD (-BS)



## Specifications

Model			PUCY-P1250YSKD (-BS)	PUCY-P1300YSKD (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	136.0	140.0
		BTU/h	464,000	477,700
	Power input	kW	39.42	41.54
	Current input	A	66.5-63.2-60.9	70.1-66.6-64.2
	EER	kW/kW	3.45	3.37
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity		P15~P600/2~50	P15~P600/2~50
Sound pressure level (measured in anechoic room)	dB <A>		68	68
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

## Set Model

Model			PUCY-P400YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P400YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)
Fan	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m <sup>3</sup> /min	210	210	210	210	210	210
		L/s	3,500	3,500	3,500	3,500	3,500	3,500
		cfm	7,415	7,415	7,415	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor		
Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static press.		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.8	10.8	12.4	10.8	12.4	12.4
	Case heater	kW	-	-	-	-	-	-
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension H x W x D	mm		1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
	in.		65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
Net weight	kg (lbs)		236 (521)	236 (521)	236 (521)	236 (521)	236 (521)	236 (521)
Heat exchanger		Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts		Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			
Energy Labelling scheme		  			  			

## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

OUTDOOR UNIT

**YKD-series - Cooling-only**

**PUCY-P YSKD (-BS)**



**Specifications**

Model		PUCY-P1350YSKD (-BS)		PUCY-P1400YSKD (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	144.0		152.0	
	BTU/h	491,300		518,600	
	Power input kW	43.63		46.06	
	Current input A	73.6-69.9-67.4		77.7-73.8-71.1	
EER	kW/kW	3.30		3.30	
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)		15.0~24.0 °C (59~75 °F)	
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)		10.0~52.0 °C (50~126 °F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity	
	Model/Quantity	P15~P600/2~50		P15~P600/2~50	
Sound pressure level (measured in anechoic room)	dB <A>	68		68.5	
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
	Gas pipe mm (in.)	41.28 (1-5/8) Brazed		41.28 (1-5/8) Brazed	

**Set Model**

Model		PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P450YKD (-BS)	PUCY-P500YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1		Propeller fan x 1		Propeller fan x 2		
	Air flow rate	m³/min	210		210		320	
		L/s	3,500		3,500		5,333	
		cfm	7,415		7,415		11,299	
	Control, Driving mechanism	Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor		
*2 Motor output	kW	0.92 x 1		0.92 x 1		0.92 x 2		
External static press.		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type	Inverter scroll hermetic compressor				Inverter scroll hermetic compressor		
	Starting method	Inverter		Inverter		Inverter		
	Motor output	kW	12.4		12.4		13.3	
	Case heater	kW	-		-		-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		
External dimension H x W x D	mm	1,650 x 1,220 x 740		1,650 x 1,220 x 740		1,650 x 1,220 x 740		
	in.	65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection				Over-heat protection, Over-current protection		
Refrigerant	Type x original charge	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	
Net weight	kg (lbs)	236 (521)		236 (521)		304 (671)		
Heat exchanger		Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe mm (in.)	15.88 (5/8) Brazed		15.88 (5/8) Brazed		15.88 (5/8) Brazed		
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		
Optional parts		Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G				Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Energy Labelling scheme								

**Notes:**

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

## OUTDOOR UNIT

## YKD-series - Cooling-only







## PUCY-P YSKD (-BS)



## Specifications

Model		PUCY-P1450YSKD (-BS)		PUCY-P1500YSKD (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	160.0		168.0	
	BTU/h	545,900		573,200	
	Power input kW	48.63		51.06	
	Current input A	82.0-77.9-75.1		86.1-81.8-78.9	
Temp. range of cooling	EER kW/kW	3.29		3.29	
	Indoor W.B.	15.0~24.0 °C (59~75 °F)		15.0~24.0 °C (59~75 °F)	
Outdoor D.B.	10.0~52.0 °C (50~126 °F)		10.0~52.0 °C (50~126 °F)		
	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity		
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity	
	Model/Quantity	P15~P600/2~50		P15~P600/2~50	
Sound pressure level (measured in anechoic room)	dB <A>	69.5		70	
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
	Gas pipe mm (in.)	41.28 (1-5/8) Brazed		41.28 (1-5/8) Brazed	

## Set Model

Model		PUCY-P450YKD (-BS)	PUCY-P500YKD (-BS)	PUCY-P500YKD (-BS)	PUCY-P500YKD (-BS)	PUCY-P500YKD (-BS)	PUCY-P500YKD (-BS)
Fan	Type x Quantity	Propeller fan x 1		Propeller fan x 2		Propeller fan x 2	
	Air flow rate	m <sup>3</sup> /min	210	320	320	320	320
		L/s	3,500	5,333	5,333	5,333	5,333
		cfm	7,415	11,299	11,299	11,299	11,299
Control, Driving mechanism		Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor	
Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2
*2 External static press.		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type	Inverter scroll hermetic compressor				Inverter scroll hermetic compressor	
	Starting method	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	12.4	13.3	13.3	13.3	13.3
	Case heater	kW	-	-	-	-	-
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
External dimension H x W x D	mm	1,650 x 1,220 x 740	1,650 x 1,750 x 740	1,650 x 1,750 x 740	1,650 x 1,750 x 740	1,650 x 1,750 x 740	1,650 x 1,750 x 740
	in.	65 x 48-1/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection				Over-heat protection, Over-current protection	
Refrigerant	Type x original charge	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
Net weight	kg (lbs)	236 (521)	304 (671)	304 (671)	304 (671)	304 (671)	304 (671)
Heat exchanger		Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	Liquid pipe mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts		Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G				Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G	
Energy Labelling scheme							

## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °C D.B./19 °C W.B. (81 °F D.B./66 °F W.B.)	35 °C D.B. (95 °F D.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

OUTDOOR UNIT

# YKD-series - Cooling-only High Efficiency

## PUCY-EP YSKD (-BS)



### Specifications

Model		PUCY-EP400YSKD (-BS)	PUCY-EP450YSKD (-BS)	PUCY-EP500YSKD (-BS)
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	44.8	50.4	56.0
	BTU/h	152,900	172,000	191,100
	Power input kW	9.93	11.37	12.84
	Current input A	16.7-15.9-15.3	19.1-18.2-17.5	21.6-20.5-19.8
EER		4.51	4.43	4.36
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity	P15~P400/1~34	P15~P400/1~39	P15~P500/1~43
Sound pressure level (measured in anechoic room)	dB <A>	60	60.5	61
Refrigerant piping diameter	Liquid pipe mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

### Set Model

Model		PUCY-P200YKD (-BS)	PUCY-P200YKD (-BS)	PUCY-P200YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P250YKD (-BS)
Fan	Type x Quantity	Propeller fan x 1		Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m³/min	175	175	175	175	175
		L/s	2,917	2,917	2,917	2,917	2,917
		cfm	6,179	6,179	6,179	6,179	6,179
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
Motor output kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method	Inverter		Inverter		Inverter	
	Motor output kW	5.5	5.5	5.5	6.9	6.9	6.9
	Case heater kW	-	-	-	-	-	-
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	
	in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
Refrigerant	Type x original charge	R410A x 5.5 kg (13 lbs)	R410A x 5.5 kg (13 lbs)	R410A x 5.5 kg (13 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	
Net weight	kg (lbs)	174 (384)	174 (384)	174 (384)	183 (404)	183 (404)	
Heat exchanger	Salt-resistant cross fin & copper tube						
Pipe between unit and distributor	Liquid pipe mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	
Optional parts	Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		
Energy Labelling scheme							

### Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

## OUTDOOR UNIT

## YKD-series - Cooling-only High Efficiency





## PUCY-EP YSKD (-BS)



## Specifications

Model			PUCY-EP650YSKD (-BS)	PUCY-EP700YSKD (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	73.5	80.0
		BTU/h	250,800	273,000
	Power input	kW	18.32	19.75
	Current input	A	30.9-29.3-28.3	33.3-31.6-30.5
	EER	kW/kW	4.01	4.05
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity		P15~P600/1~50	P15~P600/1~50
Sound pressure level (measured in anechoic room)	dB <A>		64	64
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed

## Set Model

Model			PUCY-P300YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P350YKD (-BS)
Fan	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m <sup>3</sup> /min	175	210	210	210
		L/s	2,917	3,500	3,500	3,500
		cfm	6,179	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static press.		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	8.1	10.4	10.4	10.4
	Case heater	kW	-	-	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
External dimension H x W x D	mm		1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
	in.		65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
Net weight	kg (lbs)		200 (441)	236 (521)	236 (521)	236 (521)
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G	
Energy Labelling scheme						

## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

OUTDOOR UNIT

# YKD-series - Cooling-only High Efficiency

## PUCY-EP YSKD (-BS)



### Specifications

Model		PUCY-EP750YSKD (-BS)		PUCY-EP800YSKD (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	84.8		90.4	
	BTU/h	289,300		308,400	
	Power input kW	19.44		20.97	
	Current input A	32.8-31.1-30.0		35.4-33.6-32.4	
EER		4.36		4.31	
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)		15.0~24.0 °C (59~75 °F)	
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)		10.0~52.0 °C (50~126 °F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity	
	Model/Quantity	P15~P600/1~50		P15~P600/1~50	
Sound pressure level (measured in anechoic room)		dB <A>		64	
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
	Gas pipe mm (in.)	34.93 (1-3/8) Brazed		34.93 (1-3/8) Brazed	

### Set Model

Model		PUCY-P200YKD (-BS)	PUCY-P200YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P200YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P350YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1		Propeller fan x 1	Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m³/min	175	175	210	175	175	210
		L/s	2,917	2,917	3,500	2,917	2,917	3,500
		cfm	6,179	6,179	7,415	6,179	6,179	7,415
Control, Driving mechanism		Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor			
Motor output kW		0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2 External static press.		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type	Inverter scroll hermetic compressor			Inverter scroll hermetic compressor			
	Starting method	Inverter			Inverter			
	Motor output kW	5.5	5.5	10.4	5.5	6.9	10.4	
	Case heater kW	-	-	-	-	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	
	in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection			Over-heat protection, Over-current protection			
Refrigerant	Type x original charge	R410A x 5.5 kg (13 lbs)	R410A x 5.5 kg (13 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 5.5 kg (13 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight	kg (lbs)	174 (384)	174 (384)	236 (521)	174 (384)	183 (404)	236 (521)	
Heat exchanger		Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	Liquid pipe mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			
Energy Labelling scheme								

### Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

## OUTDOOR UNIT

## YKD-series - Cooling-only High Efficiency

## PUCY-EP YSKD (-BS)



## Specifications

Model			PUCY-EP850YSKD (-BS)	PUCY-EP900YSKD (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0	101.5
		BTU/h	327,600	346,300
	Power input	kW	22.53	24.57
	Current input	A	38.0-36.1-34.8	41.4-39.4-37.9
Temp. range of cooling	EER	kW/kW	4.26	4.13
	Indoor	W.B.	15.0~24.0 °C (59~75 °F)	15.0~24.0 °C (59~75 °F)
	Outdoor	D.B.	10.0~52.0 °C (50~126 °F)	10.0~52.0 °C (50~126 °F)
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity
	Model/Quantity	P15~P600/1~50		P15~P600/1~50
Sound pressure level (measured in anechoic room)	dB <A>	64		65
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

## Set Model

Model			PUCY-P250YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P250YKD (-BS)	PUCY-P300YKD (-BS)	PUCY-P350YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m <sup>3</sup> /min	175	175	210	175	175	210	
		L/s	2,917	2,917	3,500	2,917	2,917	3,500	
		cfm	6,179	6,179	7,415	6,179	6,179	7,415	
	Control, Driving mechanism	Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor			
Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type	Inverter scroll hermetic compressor				Inverter scroll hermetic compressor			
	Starting method	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	6.9	6.9	10.4	6.9	8.1	10.4	
	Case heater	kW	-	-	-	-	-	-	
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>				
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740		
	in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection				Over-heat protection, Over-current protection			
Refrigerant	Type x original charge	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)		
Net weight	kg (lbs)	183 (404)	183 (404)	236 (521)	183 (404)	200 (441)	236 (521)		
Heat exchanger	Salt-resistant cross fin & copper tube				Salt-resistant cross fin & copper tube				
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts	Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G				Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G				
Energy Labelling scheme									

## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °C D.B./19 °C W.B. (81 °F D.B./66 °F W.B.)	35 °C D.B. (95 °F D.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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



OUTDOOR UNIT

# YKD-series - Cooling-only High Efficiency

## PUCY-EP YSKD (-BS)



### Specifications

Model		PUCY-EP950YSKD (-BS)	PUCY-EP1000YSKD (-BS)
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	107.0	113.5
	BTU/h	365,100	387,300
	Power input kW	26.81	28.80
	Current input A	45.2-42.9-41.4	48.6-46.1-44.5
EER		3.99	3.94
Temp. range of cooling	Indoor W.B.	15.0~24.0 °C (59~75 °F)	
	Outdoor D.B.	10.0~52.0 °C (50~126 °F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity	
	Model/Quantity	P15~P600/1~50	
Sound pressure level (measured in anechoic room)		66	
Refrigerant piping diameter	Liquid pipe mm (in.)	19.05 (3/4) Brazed	
	Gas pipe mm (in.)	41.28 (1-5/8) Brazed	

### Set Model

Model		PUCY-P300YKD (-BS)	PUCY-P300YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P300YKD (-BS)	PUCY-P350YKD (-BS)	PUCY-P350YKD (-BS)	
Fan	Type x Quantity	Propeller fan x 1			Propeller fan x 1			
	Air flow rate	m³/min	175	175	210	175	210	210
		L/s	2,917	2,917	3,500	2,917	3,500	3,500
		cfm	6,179	6,179	7,415	6,179	7,415	7,415
	Control, Driving mechanism	Inverter-control, Direct-driven by motor			Inverter-control, Direct-driven by motor			
Motor output kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1		
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)			0 Pa (0 mmH <sub>2</sub> O)			0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type	Inverter scroll hermetic compressor			Inverter scroll hermetic compressor			
	Starting method	Inverter			Inverter			
	Motor output kW	8.1	8.1	10.4	8.1	10.4	10.4	
	Case heater kW	-	-	-	-	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension H x W x D	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	
	in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection			Over-heat protection, Over-current protection			
Refrigerant	Type x original charge	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight	kg (lbs)	200 (441)	200 (441)	236 (521)	200 (441)	236 (521)	236 (521)	
Heat exchanger		Salt-resistant cross fin & copper tube			Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	Liquid pipe mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G			
Energy Labelling scheme								

### Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.)	35 °CD.B. (95 °FD.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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

## OUTDOOR UNIT

## YKD-series - Cooling-only High Efficiency

## PUCY-EP YSKD (-BS)



## Specifications

Model	PUCY-EP1050YSKD (-BS)			PUCY-EP1100YSKD (-BS)				
Power source	3-phase 4-wire 380-400-415 V 50/60 Hz			3-phase 4-wire 380-400-415 V 50/60 Hz				
Cooling capacity (Nominal)	*1	kW	120.0	124.0				
		BTU/h	409,400	423,100				
	Power input	kW	29.62	32.37				
	Current input	A	50.0-47.5-45.7	54.6-51.9-50.0				
	EER	kW/kW	4.05	3.83				
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)			15.0~24.0 °C (59~75 °F)		
	Outdoor	D.B.	10.0~52.0 °C (50~126 °F)			10.0~52.0 °C (50~126 °F)		
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity			50~130% of outdoor unit capacity			
	Model/Quantity	P15~P600/1~50			P15~P600/1~50			
Sound pressure level (measured in anechoic room)	dB <A>	66			67			
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed			19.05 (3/4) Brazed		
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed			41.28 (1-5/8) Brazed		

## Set Model

Model	PUCY-P350YKD (-BS)		PUCY-P350YKD (-BS)		PUCY-P350YKD (-BS)		PUCY-P350YKD (-BS)		PUCY-P350YKD (-BS)		PUCY-P400YKD (-BS)			
Fan	Type x Quantity	Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		Propeller fan x 1		
	Air flow rate	m <sup>3</sup> /min	210		210		210		210		210		210	
		L/s	3,500		3,500		3,500		3,500		3,500		3,500	
		cfm	7,415		7,415		7,415		7,415		7,415		7,415	
	Control, Driving mechanism	Inverter-control, Direct-driven by motor						Inverter-control, Direct-driven by motor						
Motor output	kW	0.92 x 1		0.92 x 1		0.92 x 1		0.92 x 1		0.92 x 1		0.92 x 1		
*2 External static press.	0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)			
Compressor	Type	Inverter scroll hermetic compressor						Inverter scroll hermetic compressor						
	Starting method	Inverter		Inverter		Inverter		Inverter		Inverter		Inverter		
	Motor output	kW	10.4		10.4		10.4		10.4		10.8			
	Case heater	kW	-		-		-		-		-			
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>						Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>							
External dimension H x W x D	mm	1,650 x 1,220 x 740		1,650 x 1,220 x 740		1,650 x 1,220 x 740		1,650 x 1,220 x 740		1,650 x 1,220 x 740		1,650 x 1,220 x 740		
	in.	65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		65 x 48-1/16 x 29-3/16		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)						High pressure sensor, High pressure switch at 4.15 MPa (601 psi)						
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection						Over-heat protection, Over-current protection						
Refrigerant	Type x original charge	R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)		
Net weight	kg (lbs)	236 (521)		236 (521)		236 (521)		236 (521)		236 (521)		236 (521)		
Heat exchanger	Salt-resistant cross fin & copper tube						Salt-resistant cross fin & copper tube							
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed		12.7 (1/2) Brazed		12.7 (1/2) Brazed		12.7 (1/2) Brazed		15.88 (5/8) Brazed			
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed			
Optional parts	Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G						Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G							
Energy Labelling scheme														

## Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27 °C D.B./19 °C W.B. (81 °F D.B./66 °F W.B.)	35 °C D.B. (95 °F D.B.)	7.5 m (24-9/16 ft.)	0 m (0 ft.)

\*2 External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

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



# Indoor unit

A suitable unit can be selected from among a wide lineup of 15 types of units according to a building's needs. The lineup includes the cassette type, ensuring improved comfort and a pleasant appearance, the ceiling concealed type, excelling in quietness and ensuring flexible placement of air outlets, and the ceiling suspended and wall-mounted types.



# 4-way airflow type

## PLFY-P VEM-PA



### Optimum Airflow

#### 2-, 3-, 4-way Airflow Pattern Selection

Three outlet options to choose from-bidirectional, 3-way, and 4-way-to suit different types of installation. Select, for example, 4-directional for installation in the center of the room and 3-directional for installation in the corner.

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

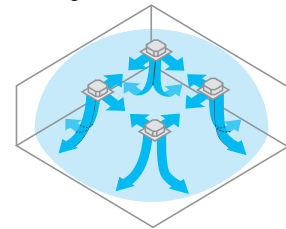
\* Optional shuffle placement is required for 2- and 3-way patterns.

#### Individual Vane Angle Settings

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

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

Multi-directional air-conditioning



#### 2-, 3-, 4-way Airflow Pattern Selection

#### Individual Vane Angle Settings

The combination of individual vane setting enables the optimal outlet setting for each room layout to ensure even temperature distribution throughout each room. The result is uniformly comfortable air conditioning.

### Equipped with High- and Low-ceiling Modes

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

4-way airflow with high-ceiling setting

4-way airflow with standard setting

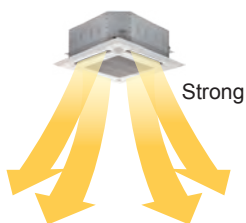
4-way airflow with low-ceiling setting

#### Airflow Range

Model	P32-P80			P100/P125		
	High-ceiling setting	Standard setting	Low-ceiling setting	High-ceiling setting	Standard setting	Low-ceiling setting
4-way	3.5 m	2.7 m	2.5 m	4.5 m	3.2 m	2.7 m
3-way	3.5 m	3.0 m	2.7 m	4.5 m	3.6 m	3.0 m
2-way	3.5 m	3.3 m	3.0 m	4.5 m	4.0 m	3.3 m

### Automatic Air-speed Adjustment

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

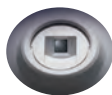


At the start of the heating / cooling operation, the airflow is set to high-speed to quickly heat / cool the room.



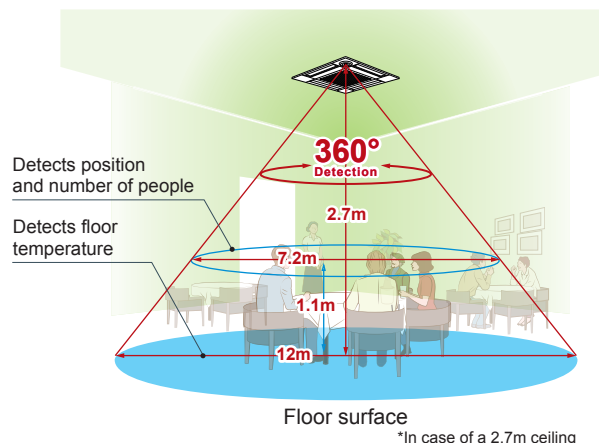
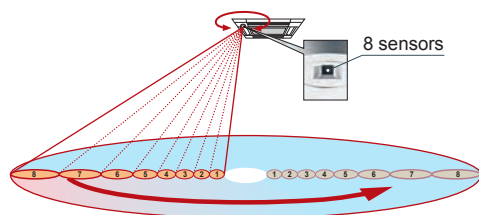
When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable and comfortable heating/cooling operation.

## 3D i-see Sensor



- Highly accurate people detection

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



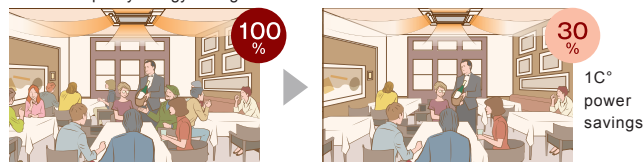
\*In case of a 2.7m ceiling

- Detects number of people

### Room occupancy energy-saving mode

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

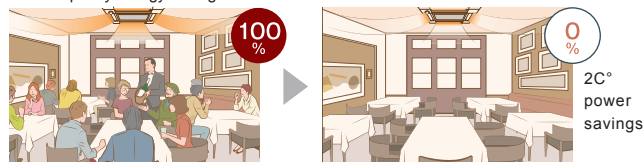
Room occupancy energy saving mode



### No occupancy energy-saving mode

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

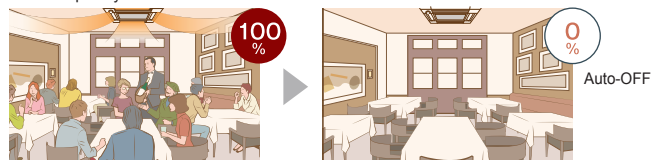
No occupancy energy saving mode



### No occupancy Auto-OFF mode

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

No occupancy Auto-OFF mode



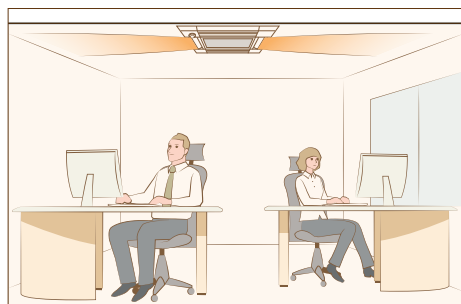
\*No occupancy Auto-OFF mode is not available when multiple indoor units are operated by one MA remote controller.

\*PAR-40MAA is required for each setting.

- Detects people's position

### Direct/Indirect settings\*

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



\*PAR-40MAA or PAR-SL100A-E is required for each setting.

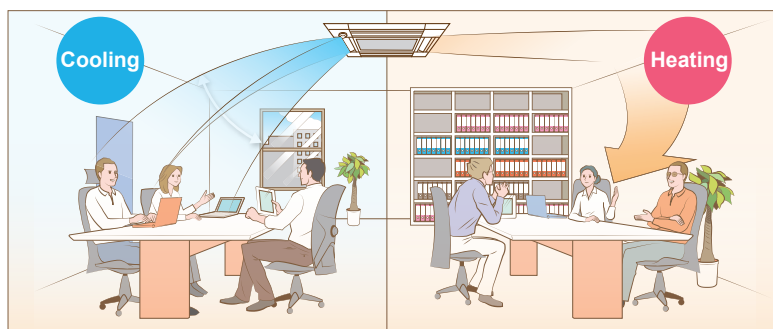
### Seasonal airflow\*

#### <When cooling>

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

#### <When heating>

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



\*PAR-40MAA is required for each setting.

## Easy Installation

### Temporary hanging hook

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



### No need to remove screws

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

#### • Corner panel



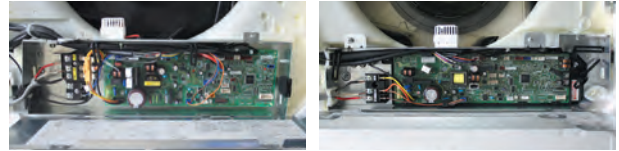
#### • Control box cover



### Electrical box wiring

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

#### • PLFY-P VBM-E → • PLFY-P VEM-PA



### Increased space for plumbing work

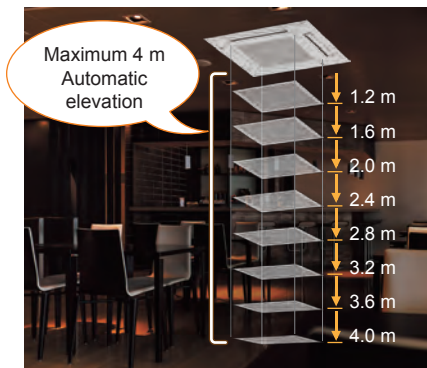
The top and bottom positions of the liquid and gas pipes have been reversed to allow the gas pipe work, which requires more effort, to be completed first. Further, through structural innovations related to the space around the pipes, the area where the spanner can be moved has been increased, thus improving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

#### • PLFY-P VBM-E → • PLFY-P VEM-PA



## Easy Cleaning

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



## Optional Parts

Description	Model	Applicable capacity
Air outlet shutter plate	PAC-SJ37SP-E	P32, P40, P50, P63, P80, P100, P125
Multi-function casement	PAC-SJ41TM-E	P32, P40, P50, P63, P80, P100, P125
High efficiency filter element	PAC-SH59KF-E	P32, P40, P50, P63, P80, P100, P125
3D i-see Sensor corner panel	PAC-SE1ME-E	P32, P40, P50, P63, P80, P100, P125
Auto elevation and signal receiver panel	PLP-6EAJ	P32, P40, P50, P63, P80, P100, P125
Wireless signal receiver	PAR-SE9FA-E	P32, P40, P50, P63, P80, P100, P125
Space panel	PAC-SJ65AS-E	P32, P40, P50, P63, P80, P100, P125
Duct flange for fresh air intake	PAC-SH65OF-E	P32, P40, P50, P63, P80, P100, P125

## Specifications

Model			PLFY-P32VEM-PA	PLFY-P40VEM-PA	PLFY-P50VEM-PA	PLFY-P63VEM-PA	PLFY-P80VEM-PA	PLFY-P100VEM-PA	PLFY-P125VEM-PA	
Power source			1-phase 220-240V 50Hz/1-phase 220-230V 60Hz							
Cooling capacity	*1	kW	3.6	4.5	5.6	7.1	9.0	11.2	14.0	
	*1	BTU/h	12,300	15,400	19,100	24,200	30,700	38,200	47,800	
	Power input	kW	0.03	0.03	0.03	0.03	0.05	0.07	0.11	
		Current input	A	0.32	0.32	0.32	0.36	0.50	0.67	1.06
Heating capacity	*2	kW	4.0	5.0	6.3	8.0	10.0	12.5	16.0	
	*2	BTU/h	13,600	17,100	21,500	27,300	34,100	42,700	54,600	
	Power input	kW	0.03	0.03	0.03	0.03	0.05	0.07	0.11	
		Current input	A	0.25	0.25	0.25	0.29	0.43	0.60	0.99
External finish (Munsell No.)	Unit	Galvanized steel sheet								
	Panel	MUNSELL (1.0Y 9.2/0.2)								
External dimension H x W x D	Unit	258 x 840 x 840							298 x 840 x 840	
	Panel	40 x 950 x 950								
Net weight	Unit	19			21			24		
	Panel	5								
Heat exchanger			Micro slit fin (Aluminumfin and copper tube)							
Fan	Type x Quantity		Turbo fan x 1							
	Airflow rate (Low-Mid2-Mid1-High)	m <sup>3</sup> /min	13-14-16-17	13-14-16-18	13-14-16-19	15-16-17-19	15-18-20-23	20-23-26-29	24-26-30-35	
		L/s	217-233-267-283	217-233-267-300	217-233-267-317	250-267-283-317	250-300-333-383	333-383-433-483	400-433-500-583	
	cfm	459-494-565-600	459-494-565-636	459-494-565-671	530-565-600-671	530-636-706-812	706-812-918-1024	847-918-1060-1236		
	External static pressure	Pa	0							
Motor	Type	DC motor								
	Output	kW	0.050					0.120		
Air filter			PP honeycomb							
Sound pressure level (Low-Mid2-Mid1-High)		dB (A)	26-27-29-31	26-27-29-31	26-27-29-31	28-29-30-32	28-31-34-37	34-37-39-41	35-39-42-45	
Refrigerant control device			LEV							
Diameter of refrigerant pipe	Liquid	mm (in.)	ø6.35 (ø1/4) Flare			ø9.52 (ø3/8) Flare				
	Gas	mm (in.)	ø12.7 (ø1/2) Flare			ø15.88 (ø5/8) Flare				
Field drain pipe size		mm (in.)	O.D 32 (1-1/4)							

### Notes:

- \*1. Nominal cooling conditions  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*2. Nominal heating conditions  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

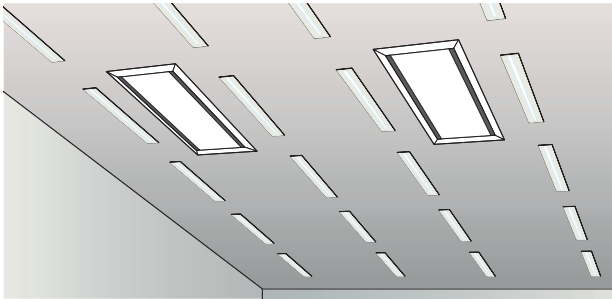
## 2-way airflow type

### PLFY-P VLMD-E



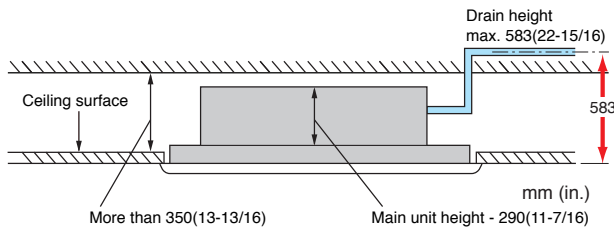
#### Simple panel design

In-take port is not a grille but made in stylish design. It can be installed visually beautifully in harmony with ceiling and illuminations.



#### Drain pump is equipped as standard feature

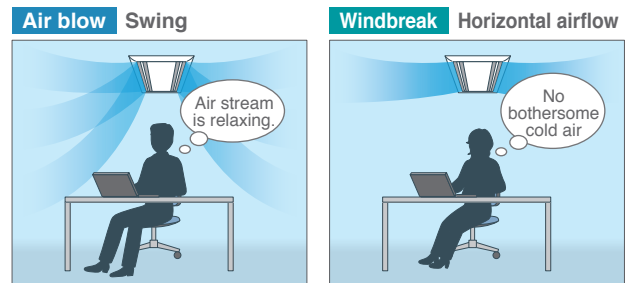
The drain can be positioned anywhere up to 583 mm (22-15/16 in.) from the ceiling's surface, providing greater freedom with long cross-piping and allowing more versatility with piping layouts.



#### Vane Control

Vane angle can be selected from 7 types including "Horizontal fix" and "Swing" to set a airflow type according to your taste.

\*Airflow direction cannot be changed individually.



#### Optional Parts

Description	Model	Applicable capacity
Decoration panel	CMP-40VLW-C	P20, P25, P32, P40
	CMP-63VLW-C	P50, P63
	CMP-100VLW-C	P80, P100
	CMP-125VLW-C	P125
OA duct flange	PAC-KH11OF	P20, P25, P32, P40, P50, P63, P80, P100



## Specifications

Model			PLFY-P20VLM-D-E	PLFY-P25VLM-D-E	PLFY-P32VLM-D-E	PLFY-P40VLM-D-E	
Power source			1-phase 220-240V 50Hz/1-phase 220-230V 60Hz				
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	
	*1	BTU/h	7,500	9,600	12,300	15,400	
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	
	*1	BTU/h	8,500	10,900	13,600	17,100	
Power consumption	Cooling	kW	0.072/0.075	0.072/0.075	0.072/0.075	0.081/0.085	
	Heating	kW	0.065/0.069	0.065/0.069	0.065/0.069	0.074/0.079	
Current	Cooling	A	0.36/0.37	0.36/0.37	0.36/0.37	0.40/0.42	
	Heating	A	0.30/0.32	0.30/0.32	0.30/0.32	0.34/0.37	
External finish (Munsell No.)	Unit	Galvanized steel plate					
	Panel	Pure white (6.4Y 8.9/0.4)					
Dimension H x W x D	Unit	mm (in.)	290 x 776 x 634 (11-7/16 x 30-9/16 x 25)				
	Panel	mm (in.)	20 x 1080 x 710 (13/16 x 42-9/16 x 28)				
Net weight	Unit	kg (lbs.)	23 (51)		24 (53)		
	Panel	kg (lbs.)	6.5 (15)				
Heat exchanger			Cross fin				
Fan	Type x Quantity		Turbo fan x 1				
	Airflow rate (Lo-Mid-Hi)	*2	m <sup>3</sup> /min	6.5-8.0-9.5		7.0-8.5-10.5	
			L/s	108-133-158		117-142-175	
			cfm	230-283-335		247-300-371	
External static pressure		Pa	0				
Motor	Type	1-phase induction motor					
	Output	kW	0.015 (at 240V)				
Air filter			PP honeycomb fabric (long life type)				
Refrigerant pipe diameter	Gas (Flare)	mm (in.)	ø12.7 (ø1/2)				
	Liquid (Flare)	mm (in.)	ø6.35 (ø1/4)				
Field drain pipe diameter			O.D.32 (1-1/4)				
Sound pressure level (Lo-Mid-Hi) *2 *3	220V	dB (A)	27-30-33			29-33-36	
	240V	dB (A)					
	230V	dB (A)	28-31-34			30-34-37	

Model			PLFY-P50VLM-D-E	PLFY-P63VLM-D-E	PLFY-P80VLM-D-E	PLFY-P100VLM-D-E	PLFY-P125VLM-D-E	
Power source			1-phase 220-240V 50Hz/1-phase 220-230V 60Hz					
Cooling capacity	*1	kW	5.6	7.1	9.0	11.2	14.0	
	*1	BTU/h	19,100	24,200	30,700	38,200	47,800	
Heating capacity	*1	kW	6.3	8.0	10.0	12.5	16.0	
	*1	BTU/h	21,500	27,300	34,100	42,700	54,600	
Power consumption	Cooling	kW	0.082/0.086	0.101/0.105	0.147/0.156	0.157/0.186	0.28/0.28	
	Heating	kW	0.075/0.080	0.094/0.099	0.140/0.150	0.150/0.180	0.27/0.27	
Current	Cooling	A	0.41/0.43	0.49/0.51	0.72/0.74	0.75/0.88	1.35/1.35	
	Heating	A	0.35/0.38	0.43/0.46	0.66/0.69	0.69/0.83	1.33/1.33	
External finish (Munsell No.)	Unit	Galvanized steel plate						
	Panel	Pure white (6.4Y 8.9/0.4)						
Dimension H x W x D	Unit	mm (in.)	290 x 946 x 634 (11-7/16 x 37-1/4 x 25)		290 x 1446 x 634 (11-7/16 x 56-15/16 x 25)		290 x 1708 x 608 (11-7/16 x 67-1/4 x 23-7/8)	
	Panel	mm (in.)	20 x 1250 x 710 (13/16 x 49-1/4 x 28)		20 x 1750 x 710 (13/16 x 68-15/16 x 28)		20 x 2010 x 710 (13/16 x 79-3/16 x 28)	
Net weight	Unit	kg (lbs.)	27 (60)	28 (62)	44 (98)	47 (104)	56 (124)	
	Panel	kg (lbs.)	7.5 (17)		12.5 (28)		13.0 (29)	
Heat exchanger			Cross fin					
Fan	Type x Quantity		Turbo fan x 1		Turbo fan x 2		Sirocco fan x 4	
	Airflow rate (P50-P100:Lo-Mid-Hi) (P125:Lo-Mid2-Mid1-Hi)	*2	m <sup>3</sup> /min	9.0-11.0-12.5	11.0-13.0-15.5	15.5-18.5-22.0	17.5-21.0-25.0	24.0-27.0-30.0-33.0
			L/s	150-183-208	167-217-258	258-308-367	292-350-417	400-450-500-550
			cfm	318-388-441	353-459-547	547-653-777	618-742-883	848-953-1,059-1,165
External static pressure		Pa	0					
Motor	Type	1-phase induction motor						
	Output	kW	0.020 (at 240V)		0.020 (at 240V)	0.030 (at 240V)	0.078 x 2 (at 240V)	
Air filter			PP honeycomb fabric (long life type)				Synthetic fiber unwoven cloth filter (long life)	
Refrigerant pipe diameter	Gas (Flare)	mm (in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)				
	Liquid (Flare)	mm (in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)				
Field drain pipe diameter			O.D.32 (1-1/4)					
Sound pressure level (Lo-Mid-Hi) *2 *3	220V	dB (A)	31-34-37	32-37-39	33-36-39	36-39-42	40-42-44-46 (Lo-Mid2-Mid1-Hi)	
	240V	dB (A)						
	230V	dB (A)	32-35-38	33-38-40	34-37-40	37-41-43		

### Notes:

\*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.

Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB

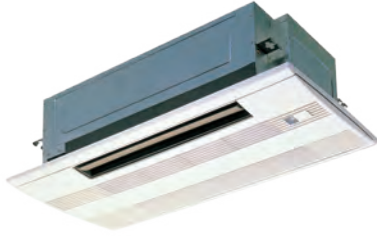
Heating : Indoor 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

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

\*3 It is measured in anechoic room.

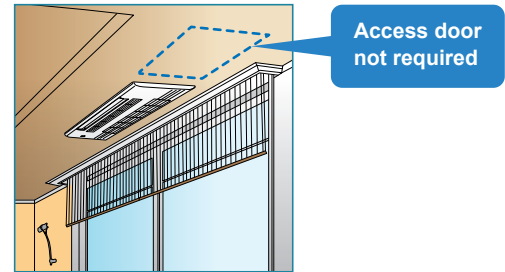
## 1-way airflow type

### PMFY-P VBM-E



### Ceiling Mounted

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

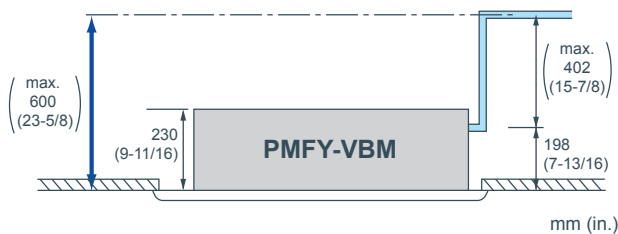


### Compact size for smooth installation and maintenance

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

### Drain pump

The drain can be positioned anywhere up to 600 mm (23-5/8 in.) from the ceiling's surface.



### Optional Parts

Description	Model	Applicable capacity
Decoration panel	PMP-40BMW	P20, P25, P32, P40

## Specifications

Model			PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E	
Power source			1-phase 220-240V 50Hz/1-phase 220V 60Hz				
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	
		BTU/h	7,500	9,600	12,300	15,400	
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	
		BTU/h	8,500	10,900	13,600	17,100	
Power consumption	Cooling	kW	0.044			0.054	
	Heating	kW	0.042			0.054	
Current	Cooling	A	0.21			0.26	
	Heating	A	0.20			0.26	
External finish (Munsell No.)			White (6.4Y 8.9/0.4)				
Dimension	Unit	mm (in.)	230 x 812 x 395 (9-1/16 x 32 x 15-9/16)				
	Panel	mm (in.)	30 x 1000 x 470 (1-3/16 x 39-3/8 x 18-9/16)				
Net weight	Unit	kg (lbs.)	14 (31)				
	Panel	kg (lbs.)	3 (7)				
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)				
Fan	Type x Quantity		Line flow fan x 1				
	Airflow rate (Lo-Mid2-Mid1-Hi)	*2	m <sup>3</sup> /min	6.5-7.2-8.0-8.7			7.3-8.0-8.6-9.3
			L/s	108-120-133-145			122-133-143-155
			cfm	230-254-283-307			258-283-304-328
External static pressure		Pa	0				
Motor	Type		1-phase induction motor				
	Output		kW				
Air filter			PP Honeycomb fabric				
Refrigerant pipe diameter	Gas (Flare)	mm (in.)	ø12.7 (ø1/2)				
	Liquid (Flare)	mm (in.)	ø6.35 (ø1/4)				
Field drain pipe diameter			mm (in.)				
Sound pressure level (Lo-Mid2-Mid1-Hi)			*2 *3	dB (A)	27-30-33-35	32-34-36-37	
					33-35-37-39		

### Notes:

\*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.

Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB

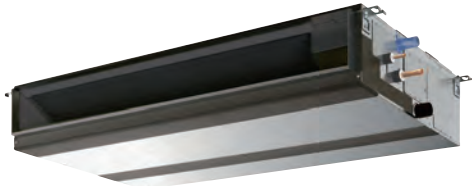
Heating : Indoor 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

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

\*3 It is measured in anechoic room.

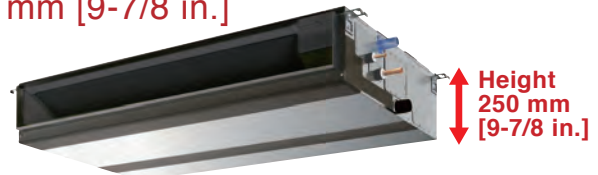
# Medium static pressure type

## PEFY-P VMA(L)-E



### Compact design with a height of only 250 mm [9-7/8 in.]

A thin body design with a height of only 250 mm [9-7/8 in.] (all models) enables installation in a 280 mm [11-in.] high ceiling space.



### Drain pump is optionally selectable

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



**PEFY-P VMA-E built-in drain pump**



**PEFY-P VMAL-E No drain pump**

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

### Selectable external static pressure

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

#### External static pressure setting

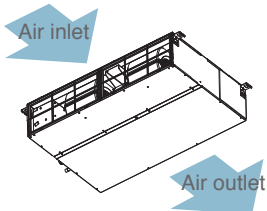
Series	20	25	32	40	50	63	71	80	100	125	140
PEFY-P VMA(L)-E	35/50/70/100/150 Pa										

### Selectable air inlet pattern

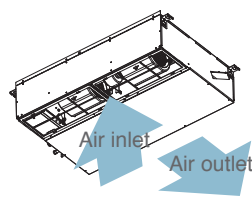
The air inlet position can only be changed between rear and bottom by switching the positions of the closing plate and air filter. (The factory default is bottom inlet.)

#### Two air inlet options can be chosen, rear or bottom:

##### 1. Rear inlet



##### 2. Bottom inlet



\* Unit with a bottom inlet make more noise than those with a rear inlet. It is recommended that the rear inlet be selected when installing the units in rooms that should be quiet, such as bedrooms.

### Optional Parts

Description	Model	Applicable capacity
		VMA(L)
Filter box	PAC-KE91TB-E	P20, P25, P32
	PAC-KE92TB-E	P40, P50
	PAC-KE93TB-E	P63, P71, P80
	PAC-KE94TB-E	P100, P125
	PAC-KE95TB-E	P140

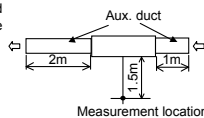
## Specifications

Model		PEFY-P32VMA(L)-E	PEFY-P40VMA(L)-E	PEFY-P50VMA(L)-E	PEFY-P63VMA(L)-E	
Power source		1-phase 220-230-240V 50/60Hz				
Cooling capacity (Nominal)	*1	kW	3.6	4.5	5.6	7.1
		BTU/h	12,300	15,400	19,100	24,200
Heating capacity (Nominal)	*2	kW	4.0	5.0	6.3	8.0
		BTU/h	13,600	17,100	21,500	27,300
Power consumption	Cooling*3	kW	0.044 (0.042)	0.047 (0.045)	0.066 (0.064)	0.087 (0.085)
	Heating*3	kW	0.042	0.045	0.064	0.085
Current	Cooling*3	A	0.34	0.37	0.51	0.66
	Heating*3	A	0.34	0.37	0.51	0.66
External finish		Galvanized steel plate				
Dimension H x W x D	mm	250 x 700 x 732	250 x 900 x 732	250 x 900 x 732	250 x 900 x 732	
	in.	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	
Net weight	kg (lbs.)	21.5 (49) [21 (47)]	26 (58) [25.5 (58)]	26 (58) [25.5 (58)]	27 (60) [26.5 (60)]	
Heat exchanger		Cross fin (Aluminum fin and copper tube)				
Fan	Type x Quantity	Sirocco fan x 1		Sirocco fan x 2		
	Airflow rate (Lo-Mid-Hi)	m <sup>3</sup> /min	7.5-9.0-10.5	10.0-12.0-14.0	12.0-14.5-17.0	13.5-16.0-19.0
		L/s	125-150-175	167-200-233	200-242-283	225-267-317
		cfm	265-318-371	353-424-494	424-512-600	477-565-671
External static pressure	*4	Pa	35-<50>-<70>-<100>-<150>	35-<50>-<70>-<100>-<150>	35-<50>-<70>-<100>-<150>	35-<50>-<70>-<100>-<150>
Motor	Type	DC motor				
	Output	kW	0.085	0.121	0.121	0.121
Air filter		PP honeycomb fabric.				
Refrigerant pipe diameter	Liquid (R410A)	mm (in.)	6.35 (1/4) Brazed	6.35 (1/4) Brazed	6.35 (1/4) Brazed	9.52 (3/8) Brazed
	Gas (R410A)	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
Field drain pipe diameter	mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Sound pressure level (measured in anechoic room)						
(Lo-Mid-Hi)	*3 *5	dB (A)	24-28-31	24-29-32	25-32-35	28-32-36

Model		PEFY-P80VMA(L)-E	PEFY-P100VMA(L)-E	PEFY-P125VMA(L)-E	PEFY-P140VMA(L)-E	
Power source		1-phase 220-230-240V 50/60Hz				
Cooling capacity (Nominal)	*1	kW	9.0	11.2	14.0	16.0
		BTU/h	30,700	38,200	47,800	54,600
Heating capacity (Nominal)	*2	kW	10.0	12.5	16.0	18.0
		BTU/h	34,100	42,700	54,600	61,400
Power consumption	Cooling*3	kW	0.08 (0.078)	0.142 (0.14)	0.199 (0.197)	0.208 (0.206)
	Heating*3	kW	0.078	0.14	0.197	0.206
Current	Cooling*3	A	0.57	0.97	1.23	1.34
	Heating*3	A	0.57	0.97	1.23	1.34
External finish		Galvanized steel plate				
Dimension H x W x D	mm	250 x 1,100 x 732	250 x 1,400 x 732	250 x 1,400 x 732	250 x 1,600 x 732	
	in.	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 63 x 28-7/8	
Net weight	kg (lbs.)	30 (67) [29.5 (67)]	37.5 (84) [37 (82)]	38.5 (86) [38 (84)]	41.5 (93) [41 (91)]	
Heat exchanger		Cross fin (Aluminum fin and copper tube)				
Fan	Type x Quantity	Sirocco fan x 2		Sirocco fan x 2		
	Airflow rate (Lo-Mid-Hi)	m <sup>3</sup> /min	14.5-18.0-21.0	23.0-28.0-32.0	28.0-34.0-37.0	29.5-35.5-40.0
		L/s	242-300-350	383-467-533	467-567-617	492-592-667
		cfm	512-636-742	812-989-1,130	989-1,201-1,306	1,042-1,254-1,412
External static pressure	*4	Pa	40-<50>-<70>-<100>-<150>	40-<50>-<70>-<100>-<150>	<40>-<50>-<70>-<100>-<150>	<40>-<50>-<70>-<100>-<150>
Motor	Type	DC motor				
	Output	kW	0.121	0.3	0.3	0.3
Air filter		PP honeycomb fabric.				
Refrigerant pipe diameter	Liquid (R410A)	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas (R410A)	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
Field drain pipe diameter	mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Sound pressure level (measured in anechoic room)						
(Lo-Mid-Hi)	*3 *5	dB (A)	26-32-35	31-36-39	35-39-41	34-38-41

### Notes:

- \*1 Nominal cooling conditions  
Indoor: 27°C(81°F)DB/19°C(66°F)WB, Outdoor: 35°C(95°F)DB  
Pipe length: 7.5m(24-9/16ft.), Level difference: 0m(0ft.)
- \*2 Nominal heating conditions  
Indoor: 20°C(68°F)DB, Outdoor: 7°C(45°F)DB/6°C(43°F)WB  
Pipe length: 7.5m(24-9/16ft.), Level difference: 0m(0ft.)
- \*3 The values are measured at the rated external static pressure.
- \*4 The rated external static pressure is shown without < >. The factory setting is the rated value.
- \*5 Measured in anechoic room with a 1m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



\* [ ] is in case of PEFY-P VMALE

# High static pressure type

## PEFY-P VMH(S)-E



PEFY-P VMHS-E (P40-P140)



PEFY-P VMHS-E (P200/P250)

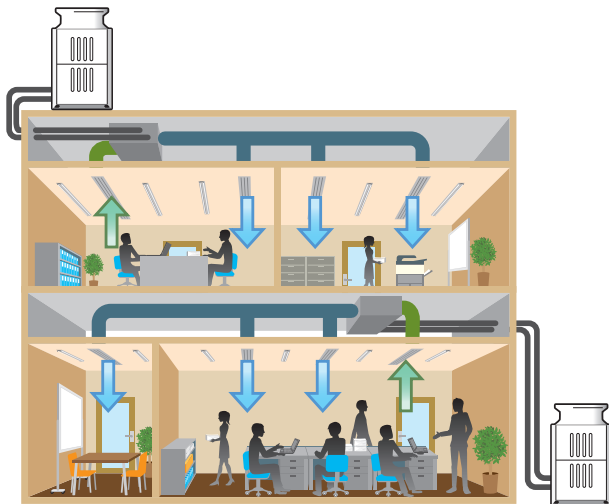


### Sufficient external static pressure ensuring flexible duct design

Sufficient external static pressure enables designs with long ducts and greatly expands design possibilities. Ducted air-conditioning that matches an interior design can be realized.

PEFY-P VMHS	P40	P50	P63	P71	P80	P100	P125	P140
External static pressure (Pa)	50 - <100> - <150> - <200>							
PEFY-P VMHS-E	P200				P250			
External static pressure (Pa)	<50> - <100> - 150 - <200> - <250>*							

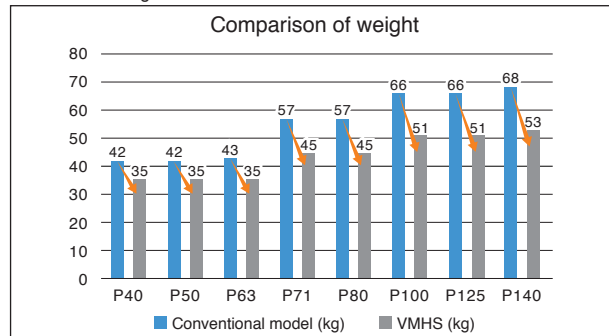
\* The rated external static pressure is shown without <>.  
The factory setting is the rated value.



### Use of DC motors (VMHS Models)

These new P40 to P140VMHS Models use DC motors. This reduces the power consumption and weight of the units.

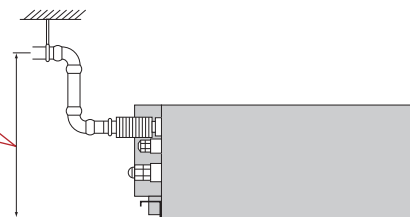
Reduction in weight of units



### Drain pump (option) ensures up to 550 mm [21-11/16 in.] for P40-P140VMHS, 700 mm [27-9/16 in.] for P200/P250VMHS models

The introduction of an upper drain pump allows the drain connection to be raised as high as 550 mm [21-11/16 in.] for P40-P140VMHS, 700 mm [27-9/16 in.] for P200, 500VMHS models, allowing more freedom in piping layout design and reducing horizontal piping requirements.

Drain pump ensures up to 550 mm [21-11/16 in.] (for P40-P140VMHS), 700 mm [27-9/16 in.] (P200, P250VMHS) of lift



### Optional Parts

Description	Model	Applicable capacity	Remarks
		VMHS-E	
Drain pump	PAC-KE05DM-F	P200, P250	
	PAC-DRP10DP-E2	P10-P140	
Long life filter	PAC-KE86LAF	P40, P50, P63	
	PAC-KE88LAF	P71, P80	
	PAC-KE89LAF	P100, P125, P140	
	PAC-KE85LAF	P200, P250	
Filter box	PAC-KE63TB-F	P40, P50, P63	Required when long life filter is used
	PAC-KE99TB-F	P71, P80	
	PAC-KE140TB-F	P100, P125, P140	
	PAC-KE250TB-F	P200, P250	

## Specifications

Model		PEFY-P40VMHS-E	PEFY-P50VMHS-E	PEFY-P63VMHS-E	PEFY-P71VMHS-E	PEFY-P80VMHS-E	PEFY-P100VMHS-E	PEFY-P125VMHS-E	PEFY-P140VMHS-E
Power source		1-phase 220-230-240 V 50/60 Hz							
Cooling capacity	*1 kW	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
	*1 BTU/h	15,400	19,100	24,200	27,300	30,700	38,200	47,800	54,600
*2 Power input	kW	0.055		0.090	0.075	0.090	0.160		0.190
	*2 Current input (220-230-240 V)	A		0.41-0.39-0.38	0.64-0.62-0.59	0.54-0.52-0.50	0.63-0.61-0.58	1.05-1.01-0.96	
Heating capacity	*3 kW	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
	*3 BTU/h	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400
*2 Power input	kW	0.055		0.090	0.075	0.090	0.160		0.190
	*2 Current input (220-230-240 V)	A		0.41-0.39-0.38	0.64-0.62-0.59	0.54-0.52-0.50	0.63-0.61-0.58	1.05-1.01-0.96	
External finish		Galvanized steel plate							
External dimension H x W x D	mm	380 x 745 x 900			380 x 1,030 x 900		380 x 1,195 x 900		
	in.	15 x 29-3/8 x 35-7/16			15 x 40-9/16 x 35-7/16		15 x 47-1/16 x 35-7/16		
Net weight	kg (lbs.)	35 (78)			45 (100)		51 (113)		53 (117)
Heat exchanger		Cross fin (Aluminum fin and copper tube)							
Fan	Type x Quantity	Sirocco fan x 1			Sirocco fan x 2				
	*4 External static press.	Pa	50-<100>-<150>-<200>						
Motor Type	mmH <sub>2</sub> O	5.1-<10.2>-<15.3>-<20.4>							
	Motor output	kW	0.121		0.244		0.375		
Air flow rate	(Low-Mid-High)								
	m <sup>3</sup> /min	10.0-12.0-14.0		13.5-16.0-19.0	15.5-18.0-22.0	18.0-21.5-25.0	26.5-32.0-38.0		28.0-34.0-40.0
	L/s	167-200-233		225-267-317	258-300-367	300-358-417	442-533-633		467-567-667
	cfm	353-424-494		477-565-671	547-636-777	636-759-883	936-1,130-1,342		989-1,201-1,412
Sound pressure level (measured in anechoic room)		(Low-Mid-High)							
*2 dB <A>	20-23-27		24-27-32		24-26-30	25-27-30	27-31-34		27-32-36
	Option:Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.								
Refrigerant piping diameter	Gas (R410A)	mm (in.)	12.7 (1/2) Brazed			15.88 (5/8) Brazed			
	Liquid (R410A)	mm (in.)	6.35 (1/4) Brazed			9.52 (3/8) Brazed			
Field drain pipe diameter	mm (in.)	O.D.32 (1-1/4)							

Model		PEFY-P200VMHS-E	PEFY-P250VMHS-E	
Power source		1-phase 220-240V 50Hz/1-phase 220-240V 60Hz		
Cooling capacity	*5 kW	22.4	28.0	
	*5 BTU/h	76,400	95,500	
Heating capacity	*5 kW	25.0	31.5	
	*5 BTU/h	85,300	107,500	
Power consumption	Cooling kW	0.63 *2	0.82 *2	
	Heating kW	0.63 *2	0.82 *2	
Cooling	220-230-240V A	3.47-3.32-3.18 *2	4.72-4.43-4.14 *2	
	Heating	220-230-240V A	3.47-3.32-3.18 *2	4.72-4.43-4.14 *2
External finish		Galvanized steel plate		
Dimension H x W x D	mm	470 x 1,250 x 1,120		
	in.	18-9/16 x 49-1/4 x 44-1/8		
Net weight	kg (lbs.)	97 (214)	100 (221)	
Heat exchanger		Cross fin (Aluminum plate fin and copper tube)		
Fan	Type x Quantity	Sirocco fan x 2		
	Lo-Mid-Hi	m <sup>3</sup> /min	50.0-61.0-72.0	58.0-71.0-84.0
L/s		833-1017-1200	967-1183-1400	
External static pressure	Pa	<50>-<100>-150-<200>-<250> *9		
	mmH <sub>2</sub> O	<5.1>-<10.2>-15.3-<20.4>-<25.5> *9		
Motor	Type	DC motor		
	Output	kW		
Air filter (option)		Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.		
Refrigerant pipe diameter	Gas (Brazing)	mm (in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)
	Liquid (Brazing)	mm (in.)	ø9.52 (ø3/8)	
Field drain pipe diameter	mm (in.)	O.D. 32 (1-1/4)		
Sound pressure level	Lo-Mid-Hi dB (A)	36-39-43 *10	39-42-46 *10	

### Notes:

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

\*2 The values are measured at the factory setting of external static pressure.

\*3 Nominal heating conditions  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

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

\*5 Cooling/heating capacity indicates the maximum value at operation under the following condition.  
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor : 35°C(95°F)DB  
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB

\*6 The external static pressure is set to 220Pa (at 380V) /260Pa (at 400, 415V) at factory shipment.

\*7 The value are that at 415V.

\*8 It is measured in anechoic room.

\*9 The rated external static pressure is shown without < >.

The factory setting is the rated value.

\*10 It is measured at the rated external static pressure in anechoic room.

# Fresh air intake type

## PEFY-P VMHS-E-F



PEFY-P VMHS-E-F (P125)



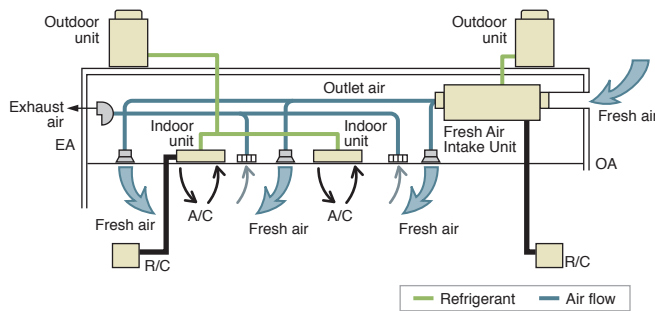
PEFY-P VMHS-E-F (P200/P250)



### Enables Intake of Outside Air

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

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



### Flexible Air-Flow Setting

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

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

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

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

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

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

### Controllable Outlet Air Temperature

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

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

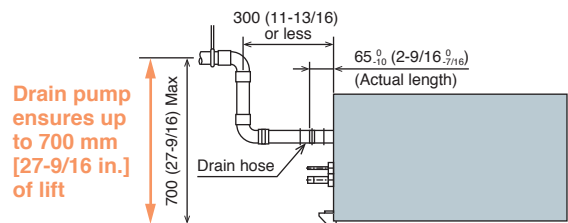
### Equipped with New Fan Motor

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

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

### Drain Pump (Optional)

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



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

## Optional Parts

Description	Model	Applicable capacity
Drain pump kit	PAC-DRP10DP-E2	P125
	PAC-KE06DM-F	P200, 250
Long life filter	PAC-KE89LAF	P125
	PAC-KE85LAF	P200, 250
Filter box	PAC-KE140TB-F	P125
	PAC-KE250TB-F	P200, 250



## Specifications

Model		PEFY-P125VMHS-E-F	PEFY-P200VMHS-E-F	PEFY-P250VMHS-E-F *6
Power source		1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	14.0	22.4	28.0
	*1 BTU/h	47,800	76,400	95,500
	*2 Power input kW	0.220	0.260	0.350
	*2 Current input (220 V) A	1.43	1.66	2.16
Temp. range of cooling		17°CDB./15.5°CWB. ~ 43°CDB./35°CWB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 17°CDB.	17°CDB./15.5°CWB. ~ 43°CDB./35°CWB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 17°CDB.	17°CDB./15.5°CWB. ~ 43°CDB./35°CWB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 17°CDB.
Heating capacity (Nominal)	*3 kW	8.9	13.9	17.4
	*3 BTU/h	30,400	47,400	59,400
	*2 Power input kW	0.230	0.270	0.360
	*2 Current input (220 V) A	1.52	1.85	2.38
Temp. range of heating		-10°CDB. ~ 20°CDB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 20°CDB.	-10°CDB. ~ 20°CDB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 20°CDB.	-10°CDB. ~ 20°CDB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 20°CDB.
External finish		Galvanized	Galvanized	Galvanized
External dimension HxWxD		380 x 1,195 x 900	470 x 1,250 x 1,120	470 x 1,250 x 1,120
	mm	15 x 47-1/16 x 35-7/16	18-9/16 x 49-1/4 x 44-1/8	18-9/16 x 49-1/4 x 44-1/8
	in.	49 (109)	78 (172)	81 (179)
Net weight		kg (lbs.)		
Heat exchanger		Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)
FAN		Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2
*4, 5	Type x Quantity	Pa	<100> - <150> - 200 - <250>	<100> - <150> - 200 - <250>
	External static press.	mmHzO	<10.2> - <15.3> - 20.4 - <25.5>	<10.2> - <15.3> - 20.4 - <25.5>
	Motor Type	DC motor	DC motor	DC motor
	Motor output kW	0.244	0.375	0.375
	Driving mechanism	Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
*4, 5	Air flow rate	Normal-airflow rate mode <High-airflow rate mode>	Normal-airflow rate mode <High-airflow rate mode>	Normal-airflow rate mode <High-airflow rate mode>
	(Low-Mid-High)	m <sup>3</sup> /min	14.0 - 15.5 - 18.0 15.5 - 18.0 - 20.0 22.5 - 25.0 - 28.0 25.0 - 28.0 - 32.0	28.0 - 31.0 - 35.0 31.0 - 35.0 - 40.0
	L/s	233 - 258 - 300 258 - 300 - 333 375 - 417 - 467 417 - 467 - 533	467 - 517 - 583 517 - 583 - 667	
	cfm	494 - 547 - 636 547 - 636 - 706 794 - 883 - 989 883 - 989 - 1,130	989 - 1,095 - 1,236 1,095 - 1,236 - 1,412	
Sound pressure level (measured in anechoic room) (Low-Mid-High)		*2 dB <A>	34-37-41 36-40-42	35-38-41 36-39-42
Air filter		Option: Synthetic fiber unwoven cloth filter (long life filter).	Option: Synthetic fiber unwoven cloth filter (long life filter).	Option: Synthetic fiber unwoven cloth filter (long life filter).
Refrigerant piping diameter	Liquid (R410A)	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas (R410A)	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
Field drain pipe size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts		Drain pump kit	PAC-DRP10DP-E2	PAC-KE06DM-F
	Long life filter	PAC-KE89LAF	PAC-KE85LAF	PAC-KE85LAF
	Filter box	PAC-KE140TB-F	PAC-KE250TB-F	PAC-KE250TB-F

### Notes:

- \*1 Cooling capacity indicates the maximum value at operation under the following condition. Cooling: Indoor 33°CDB/28°CWB, Outdoor 33°CDB. The set temperature of the remote controller is 18°C.
- \*2 The value are measured at the factory setting of airflow mode and external static pressure.
- \*3 Heating capacity indicates the maximum value at operation under the following condition. Heating: Indoor 0°CDB/-2.9°CWB, Outdoor 0°CDB/-2.9°CWB. The set temperature of the remote controller is 25°C.
- \*4 The factory setting of airflow mode and external static pressure mode is shown without < >. Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- \*5 If the airflow rate is over the usable range, dew drop can be caused from the air outlet and the air flow rate is changed automatically because of the output down by the fan motor control. If the air flow rate is less than the usable range, condensation from the unit surface can be caused.
- \*6 Regarding P250VMHS-E-F, the middle notch air flow rate is different from the spec value when the external static pressure setting is set to 100Pa. See "Fan characteristics curves" in DATA BOOK for the details.
- The combination of fresh air intake type indoor units with other types of indoor units to handle internal thermal load which may cause the conflict of operation mode. It is not recommended when fresh air intake type indoor unit is connected to the Y or WY series.
- Depending on the air conditioning load, outside temperature, and due to the activation of protection functions, the desired preset temperature may not always be achieved and the discharge temperature may swing. Note that untreated outside air may be delivered directly into the room upon the activation of protection functions.
- Fresh air intake type indoor units cannot be connected to PUMY and cannot be connected to an outdoor unit together with PWFY series.
- The maximum connectable indoor units to 1 outdoor unit are 100% (100% in case of heating below -5°C).
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake type indoor units needs to be 30% or less of the connected outdoor unit capacity.
- The AUTO mode on the local remote controller is available only when fresh air intake type indoor unit is connected to the R2 or WR2 series of outdoor unit.
- The system changeover function is available only when all the connected indoor units are fresh air intake type indoor units.
- The fan temporary stops during defrost.
- The cooling and heating capacities are the maximum capacities that were obtained by operating in the above air conditions and with a refrigerant pipe of about 7.5 m and a level difference of 0 m.
- The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical information in DATA BOOK for the details.
- Thermo off (Fan) operation automatically starts either when temperature is lower than 17°CDB in cooling mode or when the temperature exceeds 20°CDB in heating mode.
- Dry mode is not available.
- When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.
- 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.
- Air filter must be installed in the air intake side. The filter should be attached where easy maintenance is possible in case of usage of field supply filters.

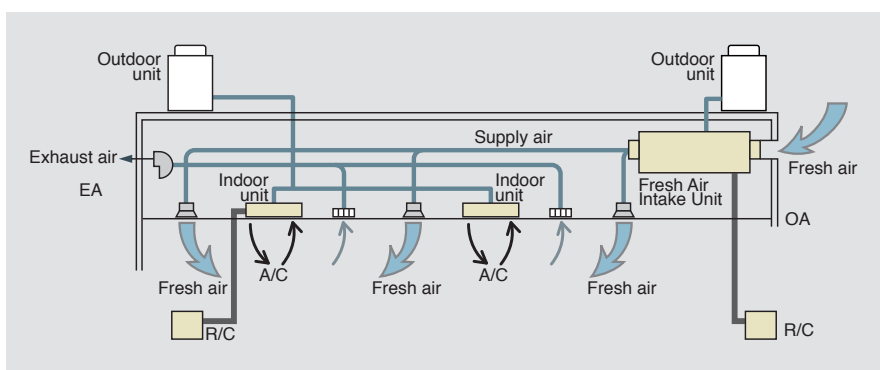
# Fresh air intake type

## PEFY-P VMH-E-F



### Example design for an outside air treatment unit system

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



**[Recommended application]**  
**Office, Lobby, Workshop,**  
**Restroom, Nursing home,**  
**Smoking corner,**  
**Kitchen in a restaurant**

### Applications across a wide range of design

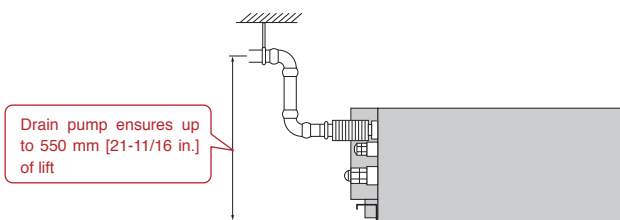
Sufficient external static pressure (up to 240 Pa) enables designs with long ducts and expands design possibilities.

PEFY-P VMH-E-F		P80	P140
External static pressure (Pa)	208 V	<35> - 85 - <170>	<35> - 85 - <170>
	220 V	<40> - 115 - <190>	<50> - 115 - <190>
	230 V	<50> - 130 - <210>	<60> - 130 - <220>
	240 V	<80> - 170 - <220>	<100> - 170 - <240>

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

### Drain pump (option) ensures up to 550 mm [21-11/16 in.] of lift

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



### Optional Parts

Description	Model	Applicable capacity
Long life filter	PAC-KE88LAF	P80
	PAC-KE89LAF	P140
Filter box	PAC-KE80TB-F	P80
	PAC-KE140TB-F	P140
Drain pump	PAC-KE04DM-F	P80, P140

## Specifications

Model			PEFY-P80VMH-E-F	PEFY-P140VMH-E-F	
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz		
Cooling capacity	*1	kW	9.0	16.0	
	*1	BTU/h	30,700	54,600	
Temp. range of cooling			21°CDB./15.5°CWB. ~ 43°CDB./35°CWB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 21°CDB.		
Heating capacity	*1	kW	8.5	15.1	
	*1	BTU/h	29,000	51,500	
Temp. range of heating			-10°CDB. ~ 20°CDB. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 20°CDB.		
Power consumption	Cooling	kW	0.16 / 0.21	0.29 / 0.33	
	Heating	kW	0.16 / 0.21	0.29 / 0.33	
Current	Cooling	A	0.67 / 0.91	1.24 / 1.48	
	Heating	A	0.67 / 0.91	1.24 / 1.48	
External finish			Galvanized		
Dimension H x W x D		mm (in.)	380 x 1,000 x 900 (15 x 39-3/8 x 35-7/16)	380 x 1,200 x 900 (15 x 47-1/4 x 35-7/16)	
Net weight		kg (lbs)	50 (111)	67 (148)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)		
Fan	Type x Quantity		Sirocco fan x 1	Sirocco fan x 2	
	Airflow rate	m <sup>3</sup> /min	9.0	18.0	
		L/s	150	300	
		cfm	318	636	
	External static pressure *3	208V	Pa	<35> - 85 - <170>	<35> - 85 - <170>
		220V	Pa	<40> - 115 - <190>	<50> - 115 - <190>
230V		Pa	<50> - 130 - <210>	<60> - 130 - <220>	
240V		Pa	<80> - 170 - <220>	<100> - 170 - <240>	
Motor	Type		1-phase induction motor		
	Output		0.09 (220V, 115Pa)	0.14 (220V, 115Pa)	
Air filter (option)			Synthetic fiber unwoven cloth filter (long life)		
Refrigerant pipe diameter	Gas	mm (in.)	ø15.88 (ø5/8) Flare		
	Liquid	mm (in.)	ø9.52 (ø3/8) Flare		
Field drain pipe diameter		mm (in.)	O.D.32 (1-1/4)		
Sound pressure level (measured in anechoic room) *2 *4	230, 220V	dB<A>	38	38	
	230, 240V	dB<A>	43	43	

### Notes:

\*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.

	Indoor	Outdoor	Pipe length	Level difference
Cooling	33°CDB/28°CWB (91°FDB/82°FWB)	33°CDB (91°FDB)	7.5 m (24-9/16 ft)	0m (0ft.)
Heating	0°CDB/-2.9°CWB (32°FDB/27°FWB)	0°CDB/-2.9°CWB (32°FDB/27°FWB)	7.5 m (24-9/16 ft)	0m (0ft.)

\*2 The values are measured at the factory setting of external static pressure.

The figure of Electrical characteristic indicates at 240V 50Hz/230V 60Hz (PEFY-P80, 140VMH-E-F type).

\*3 The factory setting of external static pressure is shown without <>.

Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

\*4 Measured in anechoic room with a 1 m air inlet duct and 2 m air outlet duct attached to the unit and 1.5 m below the unit.

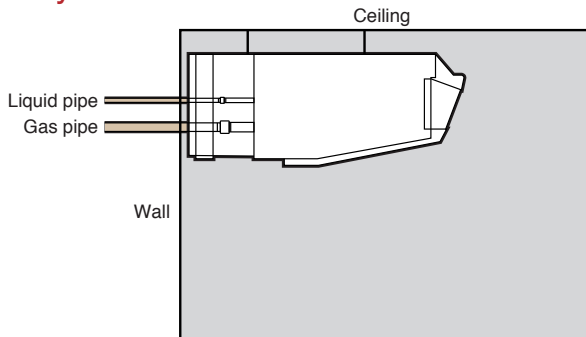
- Depending on the air conditioning load, outside temperature, and due to the activation of protection functions, the outlet air temperature may swing. Note that untreated outside air may be delivered directly into the room upon the activation of protection functions.
  - The maximum connectable indoor units to 1 outdoor unit are 110% (100% in case of heating below -5°C).
  - When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake type indoor units needs to be 30% or less of the connected outdoor unit capacity.
  - Either a remote controller (sold separately) or a remote sensor (sold separately) must be installed to monitor the room temperature.
  - The AUTO mode on the local remote controller is available only when fresh air intake type indoor unit is connected to the R2 or WR2 series of outdoor unit.
  - The system changeover function is available only when all the connected indoor units are fresh air intake type indoor units.
  - The fan temporarily stops during defrost.
  - Dry mode is not available.
  - In any case, the air flow rate should be kept lower than 110% of the above chart. Please see "Fan characteristics curves" in DATA BOOK for the details.
  - When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.
  - 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.
- Air filter must be installed in the air intake side. The filter should be attached where easy maintenance is possible in case of usage of field supply filters.

## Ceiling suspended type

### PCFY-P VKM-E



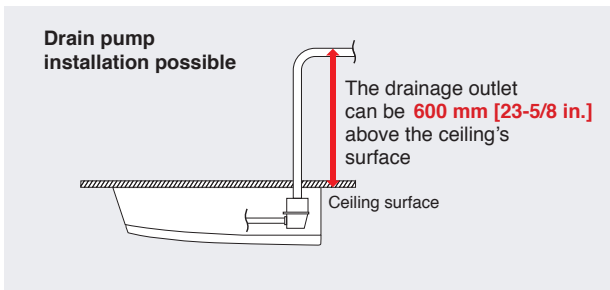
#### Easy installation



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

#### Drain pump is available for all models

The optional drain pump allows the drain connection to be raised as high as 600mm [23-5/8 in.], expanding flexibility in choosing the unit's location.

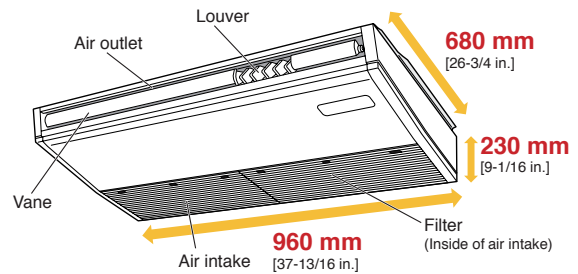


#### Equipped with automatic air-speed adjustment

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



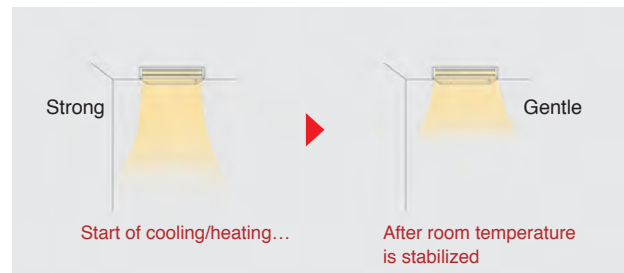
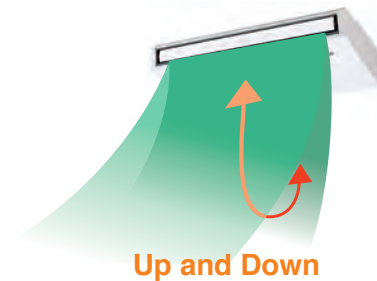
230 mm [9-1/16 in.] high unit is designed in consideration of interior design coordination



Sleek and slim with stylishly curved lines, the PCFY-Series is designed to blend into interior.

#### Auto Vane Control

Outlet vanes can be moved up and down using the remote controller. This improved airflow control feature solves the problem of drafts.



#### Optional Parts

Description	Model	Applicable capacity
Drain pump kit	PAC-SH83DM-E	P40
	PAC-SH84DM-E	P63, 100, 125
	PAC-SH88KF-E	P40
High efficiency filter	PAC-SH89KF-E	P63
	PAC-SH90KF-E	P100, 125
	PAR-SL94B-E	P40, 63, 100, 125

## Specifications

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

### Notes:

- \*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.  
Cooling Indoor : 27°C(80.6°F)DB/19°C(66.2°F)WB, Outdoor 35°C(95°F)DB  
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(44.6°F)DB/6°C(42.8°F)WB
- \*2 Airflow rate/Sound pressure level are shown in (low-middle 2-middle 1-high).
- \*3 It is measured in anechoic room.

# Wall-mounted type

## PKFY-P VLM-E PKFY-P VKM-E



PKFY-P VLM (P15~P32)








PKFY-P VLM (P40/P50)



PKFY-P VKM



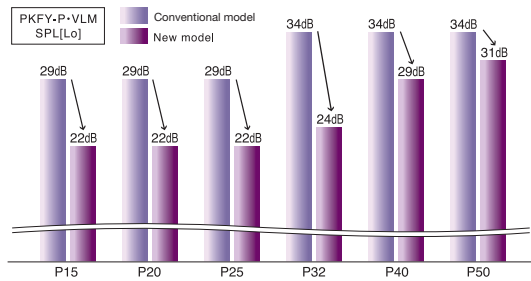
### New design that matches the room's interior (VLM model)

<p>P15~P25</p>  <p>PKFY-P VBM</p>		<p>P15~P32</p> 
<p>P32~P50</p>  <p>PKFY-P VHM</p> <p style="background-color: #cccccc; padding: 2px;">Conventional model</p>		<p>P40/P50</p>  <p>PKFY-P VLM</p> <p style="background-color: #cccccc; padding: 2px;">New model</p>

A sharp and simple form that combines beauty and function. The simple square design harmonizes beautifully with the straight lines created by the intersection of the walls, floor and ceiling. Also adopted a new white body color. It will make your life and space beautiful and comfortable without disturbing the atmosphere of the room.

### Low noise

The noise level has been reduced compared to the conventional model (PKFY-P VBM/VHM) by improving the unit structure such as the line flow fan.




\* Measurement condition (Fan speed: Low)☒  
\* It is measured in anechoic room.

### Improved Airflow control

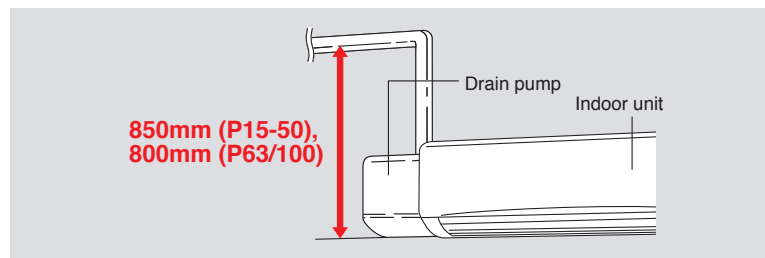
Fan speed and Vane control

The new model (VLM) can set the fan speed to 4 steps and auto mode. Also, the vane angle can be set to 5 steps. This has enabled air conditioning to be tailored to your taste.

		Conventional		New PKFY-P**VLM-E
		PKFY-P**VBM	PKFY-P**VHM	
Fan Speed		4 speeds	3 speeds + AUTO	4 speeds + AUTO
Vane Control	Vane Angle	4 steps	5 steps	5 steps
	Swing mode	—	✓	✓

### Drain pump option

The optional drain pump allows the drain connection to be raised as high as 850mm (P15-50), 800mm (P63/100), allowing more flexible in piping layout design.



### Optional Parts

Description	Model	Applicable capacity
External LEV Box	PAC-SG95LE-E	P15, 20, 25, 32, 40, 50, 63
Drain pump kit	PAC-SK01DM-E	P15, 20, 25, 32, 40, 50
	PAC-SH94DM-E	P63,100

## Specifications

Model		PKFY-P15VLM-E	PKFY-P20VLM-E	PKFY-P25VLM-E	PKFY-P32VLM-E	PKFY-P40VLM-E	PKFY-P50VLM-E		
Power source		1-phase 220-240 V 50 Hz, 1-phase 220-230 V 60Hz							
Cooling capacity (Nominal)	*1 kW	1.7	2.2	2.8	3.6	4.5	5.6		
	*1 BTU/h	5,800	7,500	9,600	12,300	15,400	19,100		
	Power input kW	0.02	0.02	0.03	0.04	0.04	0.05		
	Current input A	0.20	0.20	0.25	0.35	0.35	0.45		
Heating capacity (Nominal)	*2 kW	1.9	2.5	3.2	4.0	5.0	6.3		
	*2 BTU/h	6,500	8,500	10,900	13,600	17,100	21,500		
	Power input kW	0.01	0.01	0.02	0.03	0.03	0.04		
	Current input A	0.15	0.15	0.20	0.30	0.30	0.40		
External finish (Munsell No.)		Plastic (0.7PB 9.2/0.4)							
External dimension		mm				mm			
H x W x D		in.				in.			
Net weight		kg (lbs.)				kg (lbs.)			
Heat exchanger		Cross fin (Aluminum fin and copper tube)							
Fan	Type x Quantity		Line flow fan x 1						
	External static press Pa (mmH <sub>2</sub> O)		0 (0)						
	Motor type		DC motor						
	Motor output kW		0.03						
	Driving mechanism		Direct driven						
	Airflow rate (Lo-Mid2-Mid1-Hi)		m <sup>3</sup> /min	4.0-4.2-4.4-4.7	4.0-4.4-4.9-5.4	4.0-4.6-5.4-6.7	4.3-5.4-6.9-8.4	6.3-7.4-8.6-10.0	6.8-8.3-10.2-12.4
			L/s	67-70-73-78	67-73-82-90	67-77-90-112	72-90-115-140	105-123-143-167	113-138-170-207
		cfm	141-148-155-166	141-155-173-191	141-162-191-237	152-191-244-297	222-261-304-353	240-293-360-438	
Noise 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	
Insulation material		Polyethylene sheet							
Air filter		PP honeycomb							
Protection device		Fuse							
Refrigerant control device		LEV							
Refrigerant piping diameter	Liquid (Flare)	mm (in.)	ø6.35 (ø1/4)						
	Gas (Flare)	mm (in.)	ø12.7 (ø1/2)						
Field drain pipe diameter		mm (in.)	I.D.16 (5/8)						
Optional parts	DRAIN PUMP KIT		PAC-SK01DM-E						
	EXTERNAL LEV BOX		PAC-SG95LE-E						

### Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-1) Indoor : 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor 35°CDB. (95°FDB.) Pipe length : 7.5 m (24-9/16 ft.), Level difference : 0 m (0 ft.)

\*2 Nominal heating conditions (subject to JIS B8615-1) Indoor : 20°CDB. (68°FDB.), Outdoor 7°CDB./6°CWB. (45°FDB./43°FWB.) Pipe length : 7.5 m (24-9/16 ft.), Level difference : 0 m (0 ft.)

Model		PKFY-P63VKM-E	PKFY-P100VKM-E	
Power source		1-phase 220-240V 50Hz, 1-phase 220V 60Hz		
Cooling capacity (Nominal)	*1 kW	7.1	11.2	
	*1 BTU/h	24,200	38,200	
	Power input kW	0.05	0.08	
(220V)	Current input A	0.37	0.58	
Heating capacity (Nominal)	*2 kW	8.0	12.5	
	*2 BTU/h	27,300	42,600	
	Power input kW	0.04	0.07	
(220V)	Current input A	0.30	0.51	
External finish (Munsell No.)		Plastic, MUNSELL (1.0Y 9.2/0.2)		
External dimension		mm		
H x W x D		in.		
Net weight		kg (lbs.)		
Heat exchanger		Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity		Line flow fan x 1	
	External static press Pa (mmH <sub>2</sub> O)		0 (0)	
	Motor type		DC motor	
	Motor output kW		0.056	
	Driving mechanism		Direct-drive	
	Airflow rate (Low-High)		m <sup>3</sup> /min	16-20
			L/s	267-333
		cfm	565-706	
Sound pressure level (measured in anechoic room)		dB (A)	39-45	
Insulation material		Polyethylene sheet		
Air filter		PP honeycomb		
Protection device		Fuse		
Refrigerant control device		LEV		
Refrigerant piping diameter	Liquid (Flare)	mm (in.)	ø9.52 (ø3/8)	
	Gas (Flare)	mm (in.)	ø15.88 (ø5/8)	
Field drain pipe diameter		mm (in.)	I.D.16 (5/8)	
Optional parts	DRAIN PUMP KIT		PAC-SH94DM-E	
	EXTERNAL LEV BOX		PAC-SG95LE-E	

### Notes:

\*1 Nominal cooling conditions (subject to JIS B8615-1) Indoor : 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor 35°CDB. (95°FDB.) Pipe length : 7.5 m (24-9/16 ft.), Level difference : 0 m (0 ft.)

\*2 Nominal heating conditions (subject to JIS B8615-1) Indoor : 20°CDB. (68°FDB.), Outdoor 7°CDB./6°CWB. (45°FDB./43°FWB.) Pipe length : 7.5 m (24-9/16 ft.), Level difference : 0 m (0 ft.)

# Wall-mounted type

## MSXY-FN SERIES



**MSXY-FN10/13/18VE**  
Dimension (W x D x H): 799 x 232 x 290 mm

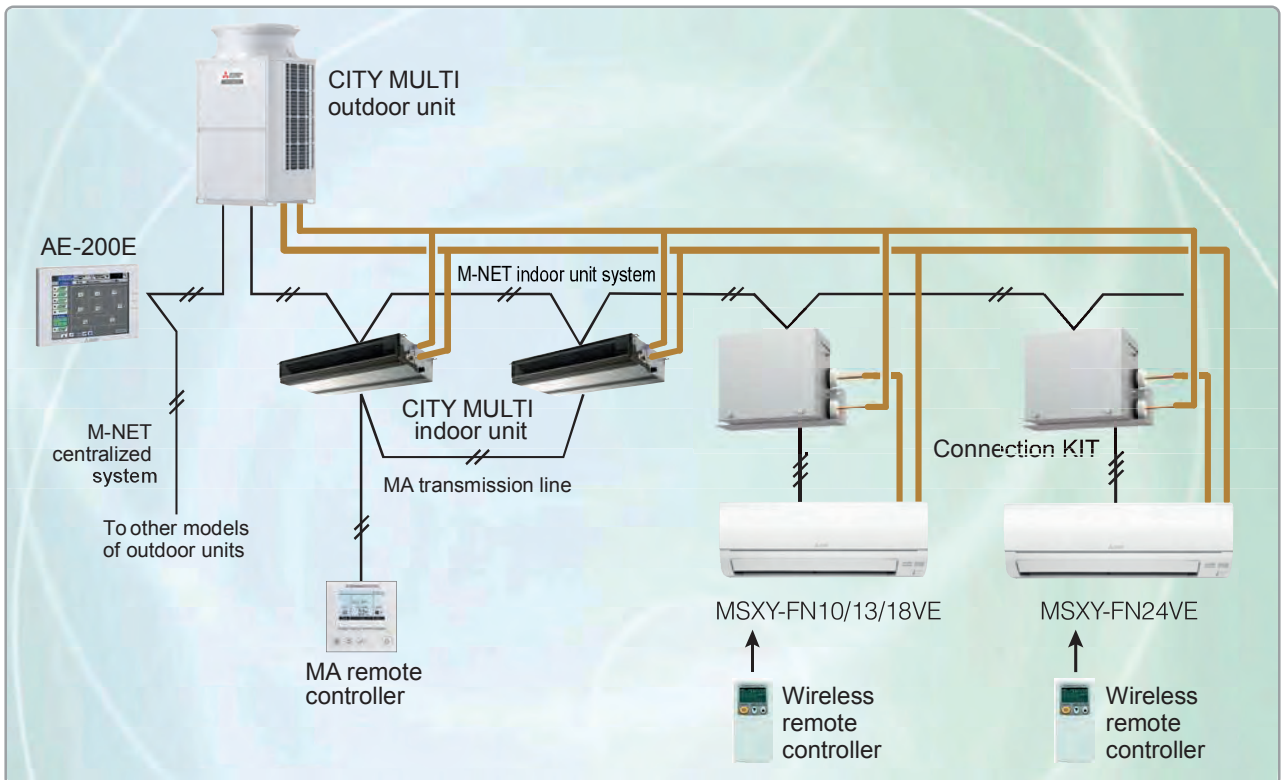


**MSXY-FN24VE**  
Dimension (W x D x H): 923 x 250 x 305 mm

**Starmex Indoor Units with LEV kit / Branch Box for residential uses.**



### System Structure



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



## Specifications

Model-Indoor Unit		MSXY-FN10VE	MSXY-FN13VE	MSXY-FN18VE	MSXY-FN24VE
Rated Capacity	kW	2.8	3.5	5.0	7.1
Power Input	kW	0.028	0.036	0.042	0.059
Running Current	A	0.27	0.33	0.38	0.52
Airflow Rate	m <sup>3</sup> /min	12.9	14.1	14.8	19.9
Sound Level*	dB(A)	19-45	19-47	28-49	30-50
Dimension (W x D x H)	mm	799 x 232 x 290			923 x 250 x 305
Net Weight	Kg	9			13
External Piping	Diameter	Gas (φ)	L/s	9.52	12.70
		Liquid (φ)	cfm	6.35	15.88
					9.52

### Notes:

\*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB  
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

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

\*3 It is measured in anechoic room.

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

## Specifications

Model		PAC-LV11M-J	
Power source	Single / 220-240V / 50-Hz		
Connectable Number of Indoor Unit	1		
External finish	Galvanized steel sheet (No external finish)		
Dimension H x W x D	mm (in.)	183 x 355 x 142	
Net weight	kg (lbs.)	3.5	
Refrigerant pipe diameter	Gas (Flare)	mm (in.)	-
	Liquid (Flare)	mm (in.)	6.35 Brazed
Wiring	To Outdoor Unit	2-core shield cable	

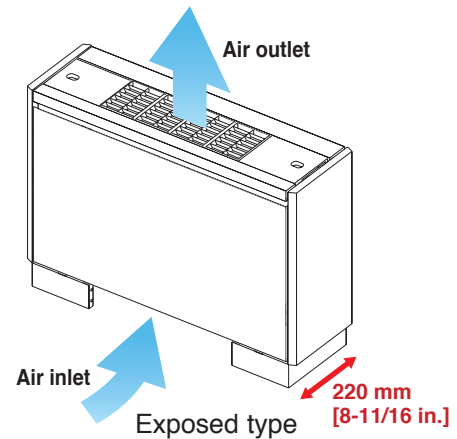
## Floor standing exposed type

### PFFY-P VLEM-E



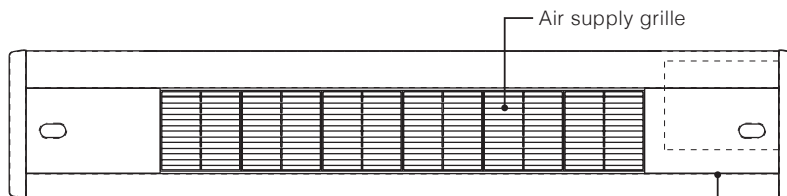
### Compact unit for easy perimeter air-conditioning

The compact body depth of 220 mm [8-11/16 in.] can be easily installed in a perimeter zone for effective air-conditioning.



### Remote controller can be installed on the main unit

The remote controller can be embedded in the main unit, allowing temperature and air volume to be easily set.



The remote controller (PAR-40MAA) can be built into the unit.  
(Program timer can not be built-in together)



PAR-40MAA

## Specifications

Model			PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E	PFFY-P50VLEM-E	PFFY-P63VLEM-E	
Power source			1-phase 220-240V 50Hz/1-phase 208-230V 60Hz						
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1	
		BTU/h	7,500	9,600	12,300	15,400	19,100	24,200	
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0	
		BTU/h	8,500	10,900	13,600	17,100	21,500	27,300	
Power consumption	Cooling	kW	0.04/0.06		0.06/0.07	0.065/0.075		0.085/0.09	
	Heating	kW	0.04/0.06		0.06/0.07	0.065/0.075		0.085/0.09	
Current	Cooling	A	0.19/0.25		0.29/0.30	0.32/0.33		0.40/0.41	
	Heating	A	0.19/0.25		0.29/0.30	0.32/0.33		0.40/0.41	
External finish (Munsell No.)			Acrylic paint (5Y 8/1)						
Dimension H x W x D	mm		630 x 1,050 x 220			630 x 1,170 x 220		630 x 1,410 x 220	
	in.		24-13/16 x 41-3/8 x 8-11/16			24-13/16 x 46-1/8 x 8-11/16		24-13/16 x 55-9/16 x 8-11/16	
Net weight	kg (lbs.)		28 (62)		30 (67)	32 (71)		36 (80)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)						
Fan	Type x Quantity		Sirocco fan x 1			Sirocco fan x 2			
	Airflow rate (Lo-Hi)	*2	m <sup>3</sup> /min	5.5-6.5		7.0-9.0	9.0-11.0		12.0-14.0
			L/s	92-108		117-150	150-183		200-233
			cfm	194-230		247-318	318-388		424-494
External static pressure	Pa		0						
Motor	Type		1-phase induction motor						
	Output	kW		0.015		0.018	0.030		0.035
Air filter			PP Honeycomb fabric (washable)						
Refrigerant pipe diameter	Gas (Flare)	mm (in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)	
	Liquid (Flare)	mm (in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)	
Field drain pipe diameter	mm (in.)		I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16) )>						
Sound pressure level (Lo-Hi)	*2 *3 *4	dB (A)		34-40		35-40	38-43		

### Notes:

\*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB

Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

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

\*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz

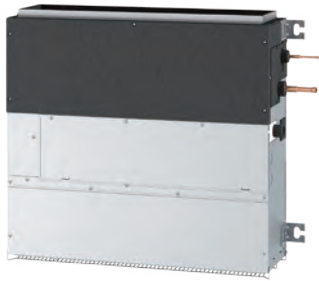
- 1dB(A) lower at AC230V/50Hz
- 2dB(A) lower at AC220V/50Hz
- 3dB(A) lower at 1.5m x 1.5m point

\*4 It is measured in anechoic room.

# Floor standing concealed type

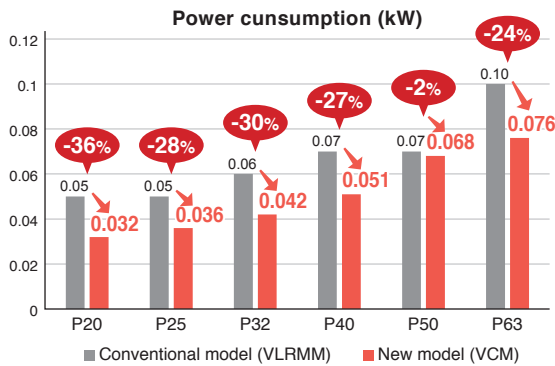
## PFFY-P VCM-E

NEW

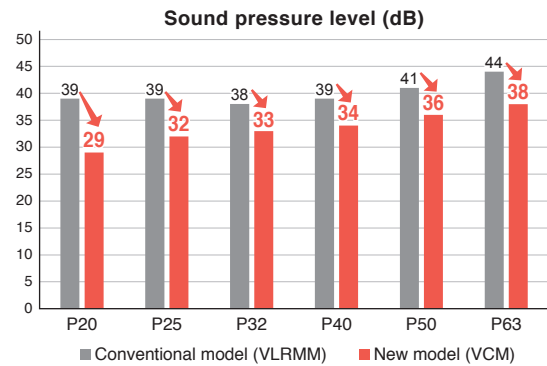


### Reduced power consumption and noise □

The structure realizes smooth airflow to reduce pressure loss in the air pathway. Additionally, the inner pipes have been downsized from  $\varnothing 1.9$  to  $\varnothing 1.5$  (P32-50), so that the heat exchanger can contain a larger number of rows (P32-63). The combination of the structure and components contributes to reducing power consumption and operation noise.



\* Measurement condition (External static pressure: 40Pa Fan speed: High)  
\* The unit consumes the same power in both cooling and heating modes.

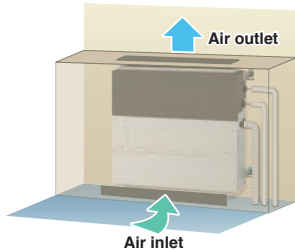


\* Measurement condition (External static pressure: 40Pa Fan speed: High)  
\* The sound pressure level in operation is measured at 1.5 m apart from the front side and bottom side of the unit in anechoic room.

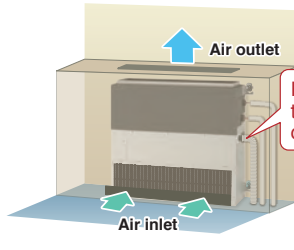
### Flexible installation pattern ideal for perimeter zone air conditioning

Air inlet can be selected from two patterns, bottom suction or front suction, by changing the panel, fan guard and filter.

• **Bottom suction\*1**



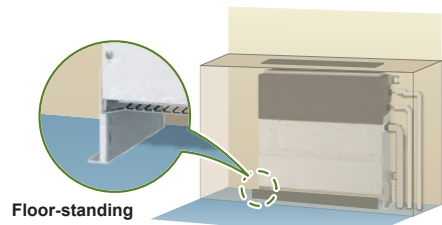
• **Front suction\*2**



Front suction allows the unit to be placed directly on the floor.

• **Floor standing with legs**

The unit can be placed on the floor with the supplied legs attached.



\* Height of unit (with legs) is 690 mm.

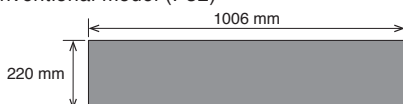
\*1 Select a site where the flow of supply air is not blocked. The unit cannot be placed directly on the floor in the case of bottom suction.

\*2 Front suction makes more noise than bottom suction. Bottom suction is recommended when installing the unit in rooms that need to be quiet, such as bedrooms.

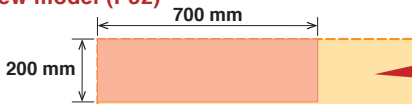
### Smaller footprint □□

The latest model (P32) has a 36% smaller footprint compared to the PFFY-VLRMM, owing to a redesigning of the positions of the inner components.

Conventional model (P32)



New model (P32)



36% down

### Flexible airflow and external static pressure setting

Airflow rate and external static pressure can be selected to suit various installation conditions.

Air flow rate	Conventional	
	PFFY-P VLRM	Low-High
	PFFY-P VLRMM	Low-Mid-High
	New	
	<b>PFFY-P VCM</b>	<b>Low-Mid-High</b>

External static pressure (Pa)	Conventional	
	PFFY-P VLRM	0
	PFFY-P VLRMM	20-40-60
	New	
	<b>PFFY-P VCM</b>	<b>0-10-40-60</b>

## Specifications

Model		PFFY-P20VCM-E	PFFY-P25VCM-E	PFFY-P32VCM-E
Power source		1-phase 220-230-240 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	2.2	2.8	3.6
	*1 BTU/h	7,500	9,600	12,300
	*2 Power input kW	0.022	0.026	0.031
Heating capacity (Nominal)	*2 Current input A	0.25	0.30	0.34
	*3 kW	2.5	3.2	4.0
	*3 BTU/h	8,500	10,900	13,600
External finish	*2 Power input kW	0.022	0.026	0.031
	*2 Current input A	0.25	0.30	0.34
External dimension		Galvanized steel plate	Galvanized steel plate	Galvanized steel plate
H x W x D	*4 mm	615 (690) x 700 x 200	615 (690) x 700 x 200	615 (690) x 700 x 200
	in.	24-1/4 (27-3/16) x 27-9/16 x 7-7/8	24-1/4 (27-3/16) x 27-9/16 x 7-7/8	24-1/4 (27-3/16) x 27-9/16 x 7-7/8
Net weight	kg (lbs)	18 (40)	18 (40)	18.5 (42)
Heat exchanger		Cross fin (Aluminum fin and copper tube)		
FAN		Sirocco fan x 2		
Type x Quantity	*5	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2
	External static press.	Pa <0> - 10 - <40> - <60>	<0> - 10 - <40> - <60>	<0> - 10 - <40> - <60>
Motor Type	mmH <sub>2</sub> O	<0.0> - 1.0 - <4.1> - <6.1>	<0.0> - 1.0 - <4.1> - <6.1>	<0.0> - 1.0 - <4.1> - <6.1>
	Motor output kW	DC motor	DC motor	DC motor
Driving mechanism	Motor output kW	0.096	0.096	0.096
	Air flow rate	Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
Sound pressure level (measured in anechoic room)	*2 dB<A>	21-23-26	(Low-Mid-High) 22-25-29	23-26-30
	Air filter	PP honeycomb fabric.	PP honeycomb fabric.	PP honeycomb fabric.
	Refrigerant piping diameter	Liquid (410A) mm (in.) 6.35 (1/4)Braze	6.35 (1/4)Braze	6.35 (1/4)Braze
Field drain pipe size	Gas (410A) mm (in.) 12.7 (1/2)Braze	12.7 (1/2)Braze	12.7 (1/2)Braze	
	mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)

### Notes:

- \*1. Nominal cooling conditions  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*2. The values are measured at the factory setting of external static pressure.
- \*3. Nominal heating conditions  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*4. The values in ( ) show the height of unit with leg.
- \*5. The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- \*Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- \*Due to continuing improvement, above specifications may be subject to change without notice.

Model		PFFY-P40VCM-E	PFFY-P50VCM-E	PFFY-P63VCM-E
Power source		1-phase 220-230-240 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	4.5	5.6	7.1
	*1 BTU/h	15,400	19,100	24,200
	*2 Power input kW	0.038	0.052	0.058
Heating capacity (Nominal)	*2 Current input A	0.38	0.50	0.49
	*3 kW	5.0	6.3	8.0
	*3 BTU/h	17,100	21,500	27,300
External finish	*2 Power input kW	0.038	0.052	0.058
	*2 Current input A	0.38	0.50	0.49
External dimension		Galvanized steel plate	Galvanized steel plate	Galvanized steel plate
H x W x D	*4 mm	615 (690) x 900 x 200	615 (690) x 900 x 200	615 (690) x 1,100 x 200
	in.	24-1/4 (27-3/16) x 35-7/16 x 7-7/8	24-1/4 (27-3/16) x 35-7/16 x 7-7/8	24-1/4 (27-3/16) x 43-5/16 x 7-7/8
Net weight	kg (lbs)	22.5 (51)	22.5 (51)	25.5 (58)
Heat exchanger		Cross fin (Aluminum fin and copper tube)		
FAN		Sirocco fan x 3		
Type x Quantity	*5	Sirocco fan x 3	Sirocco fan x 3	Sirocco fan x 4
	External static press.	Pa <0> - 10 - <40> - <60>	<0> - 10 - <40> - <60>	<0> - 10 - <40> - <60>
Motor Type	mmH <sub>2</sub> O	<0.0> - 1.0 - <4.1> - <6.1>	<0.0> - 1.0 - <4.1> - <6.1>	<0.0> - 1.0 - <4.1> - <6.1>
	Motor output kW	DC motor	DC motor	DC motor
Driving mechanism	Motor output kW	0.096	0.096	0.096
	Air flow rate	Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
Sound pressure level (measured in anechoic room)	*2 dB<A>	25-27-30	(Low-Mid-High) 28-31-34	28-32-35
	Air filter	PP honeycomb fabric.	PP honeycomb fabric.	PP honeycomb fabric.
	Refrigerant piping diameter	Liquid (410A) mm (in.) 6.35 (1/4)Braze	6.35 (1/4)Braze	9.52 (3/8)Braze
Field drain pipe size	Gas (410A) mm (in.) 12.7 (1/2)Braze	12.7 (1/2)Braze	15.88 (5/8)Braze	
	mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)

### Notes:

- \*1. Nominal cooling conditions  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*2. The values are measured at the factory setting of external static pressure.
- \*3. Nominal heating conditions  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*4. The values in ( ) show the height of unit with leg.
- \*5. The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- \*Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- \*Due to continuing improvement, above specifications may be subject to change without notice.

## Floor standing concealed type

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



### Compact unit for easy perimeter air-conditioning

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

**Air flow rate**  
2 stages (VLRM)  
3 stages (VLRMM)



### Maximum external static pressure 60 Pa (VLRMM model)

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

## Specifications

Model			PFFY-P20VLRM-E	PFFY-P25VLRM-E	PFFY-P32VLRM-E	PFFY-P40VLRM-E	PFFY-P50VLRM-E	PFFY-P63VLRM-E	
Power source			1-phase 220-240V 50Hz/1-phase 208-230V 60Hz						
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1	
		BTU/h	7,500	9,600	12,300	15,400	19,100	24,200	
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0	
		BTU/h	8,500	10,900	13,600	17,100	21,500	27,300	
Power consumption	Cooling	kW	0.04/0.06		0.06/0.07	0.065/0.075	0.085/0.09	0.1/0.11	
	Heating	kW	0.04/0.06		0.06/0.07	0.065/0.075	0.085/0.09	0.1/0.11	
Current	Cooling	A	0.19/0.25		0.29/0.30	0.32/0.33	0.40/0.41	0.46/0.47	
	Heating	A	0.19/0.25		0.29/0.30	0.32/0.33	0.40/0.41	0.46/0.47	
External finish (Munsell No.)			Galvanized steel plate						
Dimension H x W x D	mm		639 x 886 x 220		639 x 1,006 x 220		639 x 1,246 x 220		
	in.		25-3/16 x 34-15/16 x 8-11/16		25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-1/16 x 8-11/16		
Net weight			22 (49)		24 (53)	25 (56)	29 (64)	30 (67)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)						
Fan	Type x Quantity		Sirocco fan x 1			Sirocco fan x 2			
	Airflow rate (Lo-Hi)	*2	m <sup>3</sup> /min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
			L/s	92-108		117-150	150-183	200-233	200-258
			cfm	194-230		247-318	318-388	424-494	424-547
External static pressure		Pa	0						
Motor	Type		1-phase induction motor						
	Output		kW	0.015	0.018	0.030	0.035	0.050	
Air filter			PP Honeycomb fabric (washable)						
Refrigerant pipe diameter	Gas (Flare)	mm (in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)	
	Liquid (Flare)	mm (in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)	
Field drain pipe diameter			I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>						
Sound pressure level (Lo-Hi)			*2 *3 *4	34-40	35-40	38-43	40-46		

### Notes:

- \*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.  
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB  
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- \*2 Air flow rate/Sound pressure level are in (Low-High)
- \*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz  
· 1dB(A) lower at AC230V/50Hz · 2dB(A) lower at AC220V/50Hz · 3dB(A) lower at 1.5m x 1.5m point
- \*4 It is measured in anechoic room.

Model			PFFY-P20VLRMM-E	PFFY-P25VLRMM-E	PFFY-P32VLRMM-E	PFFY-P40VLRMM-E	PFFY-P50VLRMM-E	PFFY-P63VLRMM-E	
Power source			1-phase 220-240V 50Hz/1-phase 220-240V 60Hz						
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1	
		BTU/h	7,500	9,600	12,300	15,400	19,100	24,200	
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0	
		BTU/h	8,500	10,900	13,600	17,100	21,500	27,300	
Power consumption	Cooling	kW	0.04		0.04	0.05	0.05	0.07	
	Heating	kW	0.04		0.04	0.05	0.05	0.07	
Current	Cooling	A	0.34		0.38	0.43	0.48	0.59	
	Heating	A	0.34		0.38	0.43	0.48	0.59	
External finish (Munsell No.)			Galvanized steel plate						
Dimension H x W x D	mm		639 x 886 x 220		639 x 1,006 x 220		639 x 1,246 x 220		
	in.		25-3/16 x 34-15/16 x 8-11/16		25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-1/16 x 8-11/1625 (56)		
Net weight			21 (47)		24 (53)	25 (56)	29 (64)		
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)						
Fan	Type x Quantity		Sirocco fan x 1			Sirocco fan x 2			
	Airflow rate (Lo-Mid-Hi)	*2	m <sup>3</sup> /min	4.5-5.5-6.5		6.5-7.5-9.0	8.0-9.5-11.0	10.0-12.0-14.0	11.0-13.0-15.5
			L/s	75-92-108		108-125-150	133-158-183	167-200-233	183-217-258
			cfm	159-194-230		230-265-318	282-335-388	353-424-494	388-459-547
External static pressure		Pa	20/40/60						
Motor	Type		DC brushless motor						
	Output		kW	0.096					
Air filter			PP Honeycomb fabric (washable)						
Refrigerant pipe diameter	Gas	mm (in.)	ø12.7 (ø1/2) Brazed					ø15.88 (ø5/8) Brazed	
	Liquid	mm (in.)	ø6.35 (ø1/4) Brazed					ø9.52 (ø3/8) Brazed	
Field drain pipe diameter			I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>						
Sound pressure level (Lo-Mid-Hi)	20Pa	dB (A)	31-36-40	27-32-37	30-36-40	32-37-41	35-40-44	35-40-44	
	40Pa	dB (A)	34-39-42	30-35-41	32-38-42	35-40-44	36-42-47	36-42-47	
	60Pa	dB (A)	35-40-43	32-37-42	35-39-44	36-41-45	38-43-48	38-43-48	

### Notes:

- \*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.  
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB  
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB  
pipe length : 7.5m(24-9/16ft) Height difference : 0m(0ft)
- \*2 The external static pressure is set to 20Pa at factory shipment.
- \*3 The sound pressure level in operation is measured at 1m apart from the front side and the bottom side of the unit in anechoic room.  
(Noise meter A-scale value) Connect the duct of 1m in length to the air outlet.

# Floor standing exposed type

## PFFY-P YM-E PFFY-P YMH-E

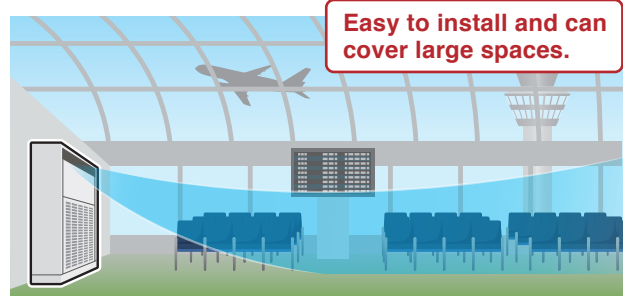
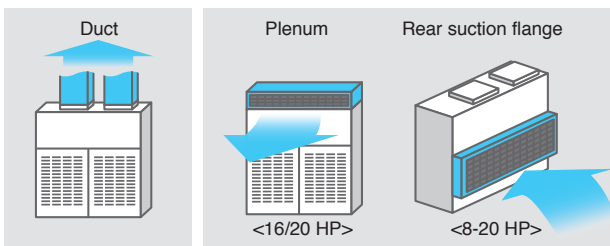


### Reduces installation and maintenance time

This series is a floor-standing, large capacity, indoor unit, which reduces the piping and installation burdens, and makes maintenance easy.

### Increased adaptation to local needs

In addition to the standard duct blowing, both plenum blowing and rear suction are optionally selectable.



### Wide ranges of airflow rate and static pressure options are available to suit a greater variety of needs

		Air flow rate (m <sup>3</sup> /min [ft. <sup>3</sup> /min])		Static pressure (Pa)
		High, 50/60 Hz		
PFFY-P200YM-E	8 HP	65.0/69.0 [2300/2430]		0
PFFY-P250YM-E	10 HP	77.0/72.0 [2720/2540]		0
PFFY-P200YMH-E*	8 HP	65.0 [2300]		180/200
PFFY-P250YMH-E*	10 HP	72.0 [2540]		180/210
PFFY-P400YM-E	16 HP	150.0 [5300]		210/390
PFFY-P500YM-E	20 HP	200.0 [7060]		290/510

\*High static pressure model

### Pulley belt option

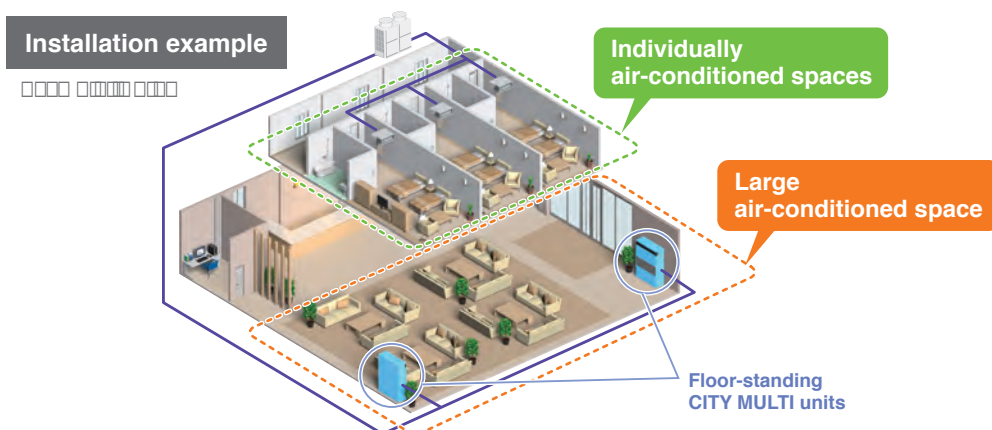
This option supports the use of wider ranges of airflow rates and static pressures to suit a greater variety of needs.

### Both large-scale and individual air conditioning can be performed

When this model is used in a large space and CITY MULTI indoor units are used in individual rooms, one outdoor unit can control the air conditioners in these rooms of various sizes.

### Multiple units can be connected to one outdoor unit

Multiple units of this model can be connected to one outdoor unit. Air can be spread throughout a large room.



### Optional Parts

Description	Model	Applicable capacity
OA duct flange	PAC-ODF10DF-E	P200, 250
	PAC-ODF20DF-E	P400, 500
Plenum	PAC-PLF20PL-E1	P400, 500



## Specifications

Model		PFFY-P200YM-E	PFFY-P250YM-E	PFFY-P200YM-E	PFFY-P250YM-E	PFFY-P400YM-E	PFFY-P500YM-E	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz						
Cooling capacity (Nominal)	*1 kW	22.4	28.0	22.4	28.0	45.0	56.0	
	*1 BTU/h	76,400	95,500	76,400	95,500	153,500	191,100	
*2	Power input	0.490/0.680	1.05/1.26	1.00/1.41	1.31/1.41	2.86/3.79	3.94/5.30	
	Current input (380-400-415 V)	A	0.97-0.98-0.99/ 1.24-1.23-1.22	1.74-1.83-1.88/ 2.06-2.05-2.04	1.82-1.85-1.87/ 2.37-2.37-2.37	2.14-2.18-2.20/ 2.18-2.18-2.18	5.23-5.25-5.33/ 6.16-6.18-6.26	7.66-7.68-7.76/ 8.49-8.51-8.58
Heating capacity (Nominal)	*3 kW	25.0	31.5	25.0	31.5	50.0	63.0	
	*3 BTU/h	85,300	107,500	85,300	107,500	170,600	215,000	
*2	Power input	0.490/0.680	1.05/1.26	1.00/1.41	1.31/1.41	2.86/3.79	3.94/5.30	
	Current input (380-400-415 V)	A	0.97-0.98-0.99/ 1.24-1.23-1.22	1.74-1.83-1.88/ 2.06-2.05-2.04	1.82-1.85-1.87/ 2.37-2.37-2.37	2.14-2.18-2.20/ 2.18-2.18-2.18	5.23-5.25-5.33/ 6.16-6.18-6.26	7.66-7.68-7.76/ 8.49-8.51-8.58
External finish		Galvanized steel plate (with polyester coating) <MUNSELL 3.0Y 7.8/1.1 or similar>						
External dimension H x W x D	mm	1,665 x 1,200 x 500	1,665 x 1,200 x 500	1,465 x 1,200 x 500	1,465 x 1,200 x 500	1,800 x 1,860 x 650	1,800 x 1,860 x 650	
	in.	65-9/16 x 47-1/4 x 19-11/16	65-9/16 x 47-1/4 x 19-11/16	57-11/16 x 47-1/4 x 19-11/16	57-11/16 x 47-1/4 x 19-11/16	70-7/8 x 73-1/4 x 25-5/8	70-7/8 x 73-1/4 x 25-5/8	
Net weight	kg (lbs)	157 (347)	158 (349)	138 (305)	139 (307)	310 (684)	362 (799)	
Heat exchanger		Cross fin (Aluminum fin and copper tube)						
Fan	Type x Quantity	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2	
	External static press. (380 V)	Pa	0	0	180/200	180/210	210/390	290/510
		mmH <sub>2</sub> O	0.0	0.0	18.4/20.4	18.4/21.4	21.4/39.8	29.6/52.0
Motor Type		3-phase induction motor						
Motor output	kW	0.400	0.500	0.770	0.770	3.700	5.500	
Driving mechanism		Direct-driven by motor				Belt driving		
Air flow rate		(High-Low)			(High)			
	m <sup>3</sup> /min	65.0-59.0/69.0-60.0	77.0-56.0/72.0-50.0	65.0	72.0	150.0	200.0	
	L/s	1,083-983/1,150-1,000	1,283-933/1,200-833	1,083	1,200	2,500	3,333	
	cfm	2,295-2,083/2,436-2,119	2,719-1,977/2,542-1,766	2,295	2,542	5,297	7,062	
Sound pressure level (measured in anechoic room) (380 V)		(High-Low)			(High)			
	*2 dB (A)	58-56/60-56	63-60/62-60	58/60	60/61	68/69	69/69	
Air filter		PP honeycomb fabric.						
Refrigerant piping diameter	Liquid (R410A)	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas (R410A)	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Field drain pipe size		in.	Rc 1	Rc 1	Rc 1	Rc 1	Rc 1-1/4	Rc 1-1/4

### Notes:

- \*1 Nominal cooling conditions  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*2 The values are measured in fan mode and at the factory setting of external static pressure.
- \*3 Nominal heating conditions  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- \*4 Long period operation in a high temperature and humidity atmosphere (dew point of 23°C or more) may cause condensation to form in the indoor unit.
- \*5 In case of this type of unit is connected, the maximum connected indoor unit capacity to one outdoor unit have to be less than or equal to 100%.
- \*6 This unit cannot be connected to R2 or WR2-Series. (PFFY-P400, P500YM-E only)
- \*7 This unit cannot be connected to PUMY-Series.

\* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.  
\* Due to continuing improvement, above specifications may be subject to change without notice.

# Floor standing exposed type

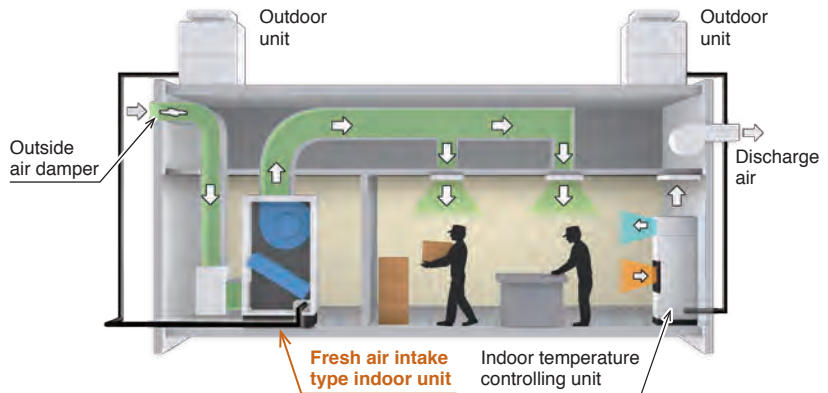
## PFFY-P YM-E-F



### Enable intake of outside air

This model can take in the outside air, it delivers fresh air to indoors and improves comfort even in places where much ventilation is required, such as factories. ☒

- \*This product is for use in occupant spaces and not suitable for use in spaces requiring stringent thermostatic control. ☒
- \*Fresh air intake type is designed to supply conditioned outside air into the room. Do not use to handle internal thermal load. ☒



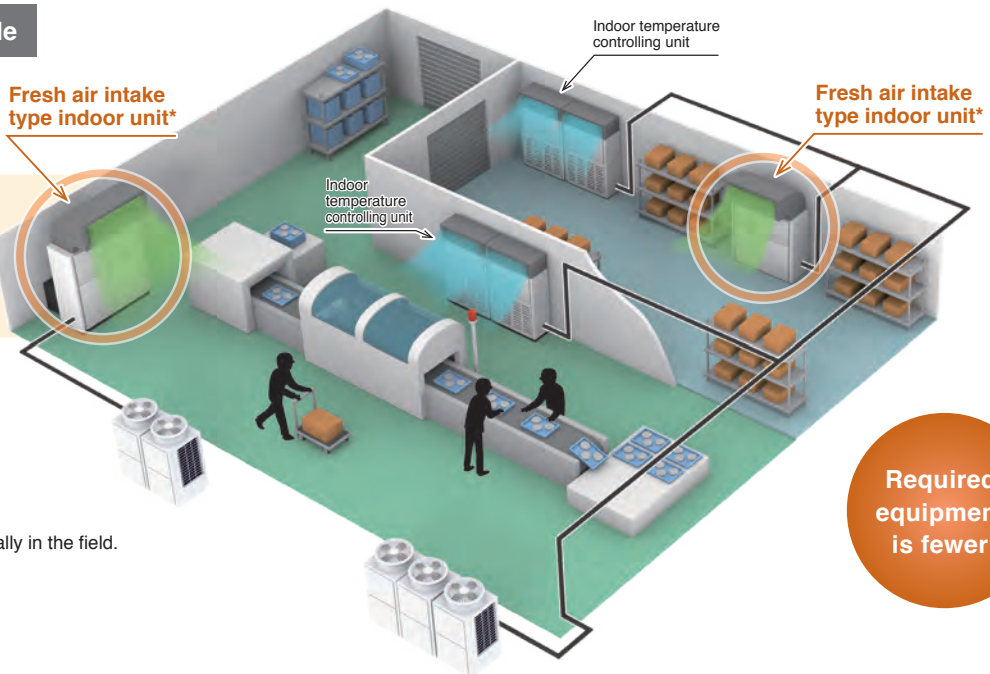
\*Please prepare dampers, ducts, and grilles locally in the field.

### Usable in combination with CITY MULTI indoor units

P300 is usable in combination with the CITY MULTI indoor units in a single refrigerant system\*. By installing an outdoor unit and indoor units that match the size of each room, it is possible to achieve individual air conditioning and intaking fresh air.

\*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. Please refer to NOTES of specification regarding the details.

#### Installation example



**Suitable for use to require outside air intake**

Example: Factory, Airport, Hall, Restaurant

\*Please prepare plenums locally in the field.

### Air flow rate, external static pressure setting

The airflow rate of this product at High speed is 45 m<sup>3</sup>/min for the P300 model and 90 m<sup>3</sup>/min for the P600 model. Two patterns of static pressure setting are selectable, depending on the size and the use of the building.

	Air flow rate (m <sup>3</sup> /min)	External static pressure
	High	
PFFY-P300YM-E-F	45.0	80 Pa, 140 Pa
PFFY-P600YM-E-F	90.0	120 Pa, 200 Pa

## Specifications

Model		PFY-P300YM-E-F	PFY-P600YM-E-F	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	33.5	67.0	
	*1 BTU/h	114,300	228,600	
	*2 Power input	0.350-0.360-0.370/0.450-0.450-0.470	0.790-0.810-0.860/0.960-0.960-0.980	
	*2 Current input	0.86-0.88-0.91/0.92-0.93-0.91	2.76-3.03-3.46/2.38-2.39-2.52	
Temp. range of cooling		21°C D.B./15.5°C W.B. ~ 43°C D.B./35°C W.B. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is lower than 21°C D.B.		
Heating capacity (Nominal)	*3 kW	28.0	56.0	
	*3 BTU/h	95,500	191,100	
	*2 Power input	0.350-0.360-0.370/0.450-0.450-0.470	0.790-0.810-0.860/0.960-0.960-0.980	
	*2 Current input	0.86-0.88-0.91/0.92-0.93-0.91	2.76-3.03-3.46/2.38-2.39-2.52	
Temp. range of heating		0°C D.B. ~ 20°C D.B. * Thermo-off (FAN-mode) automatically starts if the outdoor temperature is higher than 20°C D.B.		
External finish		Galvanized steel plate (with polyester coating) <MUNSELL 3.0Y 7.8/1.1 or similar>		
External dimension H x W x D	mm	1,465 x 1,200 x 500	1,805 x 1,860 x 710	
	in.	57-11/16 x 47-1/4 x 19-11/16	71-1/8 x 73-1/4 x 28	
Net weight	kg (lbs)	146 (322)	357 (788)	
Heat exchanger		Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity	Sirocco fan x 2	Sirocco fan x 2	
	External static press.	Pa	80/140	120/200
		mmH <sub>2</sub> O	8.2/14.3	12.2/20.4
	Motor Type		3-phase induction motor	3-phase induction motor
	Motor output	kW	0.400	2.200
	Driving mechanism		Direct-driven by motor	Belt driving
	Air flow rate			(High)
		m <sup>3</sup> /min		45.0
		L/s		750
		cfm		1,589
Sound pressure level (measured in anechoic room)		(High)	(High)	
	*2 dB (A)	48.5/48.5	54.0/56.0	
Air filter		PP honeycomb fabric 1012 x 720 Dust collection efficiency (Weight Method) 17%	PP honeycomb fabric 894 x 612 x 2 Dust collection efficiency (Weight Method) 17%	
Refrigerant piping diameter	Liquid (R410A)	mm (in.)	9.52 (3/8) Brazed	
	Gas (R410A)	mm (in.)	22.2 (7/8) Brazed	
Field drain pipe size		in.	Rc 1	
			Rc 1-1/4	

### Notes:

\*1 Nominal cooling conditions

Indoor: 33°C D.B./28°C W.B., Outdoor: 33°C D.B.

Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

\*2 The values are measured in fan mode and at the factory setting of external static pressure.

\*3 Nominal heating conditions

Indoor: 7°C D.B., Outdoor: 7°C D.B./3°C W.B.

Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

- Long period operation in a high temperature and humidity atmosphere (dew point of 23°C or more) may cause condensation to form in the indoor unit.
- This unit cannot be connected to PUMY, R2 and WR2 series.
- Fresh air intake type indoor units cannot be connected to an outdoor unit together with PWFY series.
- When this fresh air intake type indoor unit is included in the system, the upper limit of connectable indoor unit capacity range is 100% of the connected outdoor unit capacity.
- When fresh air intake type indoor units connect to an outdoor unit together with other types of indoor unit, the total capacity of fresh air intake type indoor units needs to be 30% or less of the connected outdoor unit capacity.
- The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical information in DATA BOOK for the details.
- Thermo off (Fan) operation automatically starts either when temperature is lower than 21°C D.B. in cooling mode or when the temperature exceeds 20°C D.B. in heating mode.
- Dry mode is not available.
- When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.
- Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation, which may occur dew condensation on the grills and ducts. Please insulate the grills, ducts, and rooms to prevent dew condensation properly.
- Air filter must be installed in the air intake side. The filter should be attached where easy maintenance is possible in case of usage of field supply filters.
- Fresh air intake type indoor unit is designed to supply pretreated outside air into the room. Do not use to handle internal thermal load.
- Depending on the air conditioning load, outside temperature, and due to the activation of protection functions, the desired preset temperature may not always be achieved and the outlet air temperature may swing. Note that untreated outside air may be delivered directly into the room upon the activation of protection functions.
- The fan temporary stops during defrost.

\* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

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



# Remote Controller



## Remote controller list

### Building Management Zone

Centralized control



LonWorks® Adapter

#### LMAP04-E

For LonWorks®



#### AE-200E with BACnet Interface

For BACnet®

**BMS and CITY MULTI can be connected. This enables control of the entire building and air-conditioning control on the BMS side.**

### Floor Management Zone

System controller



#### AE-200E

This model, featuring a color LCD screen, can control up to 50 indoor units when used independently, and up to 200 indoor units when connected to AE-50E/EW-50E.



#### EW-50E

This model can control up to 50 indoor units when connected to the AE-200E as an expansion unit.



#### PAC-YT40ANRA

The power can be turned on and off easily for 50 indoor units in up to 16 groups with this single unit.



#### AT-50B

This model is suitable for control on each floor. You can control up to 50 indoor units on the color LCD screen.

**The air conditioners in each group can be turned on and off, and their modes can be changed. The weekly timer allows them to be turned on automatically before work starts, and off after closing time.**

Local remote controller



#### PAR-40MAA

(MA remote controller)

The temperature can be set in steps of 0.5°C [1°F] increments, and the air flow direction and error icons are displayed on the screen.



#### PAR-U02MEDA

(ME remote controller)

All elements appear on the LCD screen, which features an occupancy sensor. All conditions including grouping can be set on this one controller.



#### PAC-YT52CRA

(MA remote controller)

A compact remote controller dedicated to setting the temperature and fan speed



#### PAR-CT01MAA-S

(MA remote controller)

All elements appear on the LCD screen. The background and character colors can be selected.



#### PAR-SL100A-E

(MA Wireless remote controller)

\* Connected only to PLFY-P VEM-PA / PLFY-P VFM-E1/PKPY-P VLM-E  
\* Requires wireless signal receiving unit



#### PAR-FL32MA

(MA Wireless remote controller)

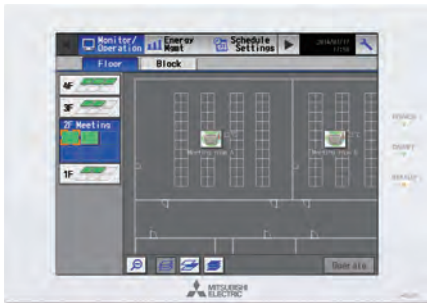
\* Requires wireless signal receiving unit

**A suitable remote controller can be selected to control the air conditioners in each room according to each use situation.**

# Centralized Remote Controller

Centralized controller

## AE-200E/AE-50E



**Dimensions** 284(W) x 200(H) x 65(D) mm  
11-3/16(W) x 7-7/8(H) x 2-9/16(D) in.

### Mounted with color LCD touch panel excelling in visibility and operability.

- A 10.4-in LCD touch panel with high definition is used. The large display screen and the floor screen image\*1 are excellent in visibility, and the equipment can be operated by touching the icons on the touch panel.

\*1. The floor plan image function is optional.

### An optimal system can be easily and flexibly established according to a facility's scale.

- Up to 50 indoor units can be managed.
- Centralized control of up to 200 indoor units can be performed with three "AE-50E/EW-50E" expansion controllers.
- More than 200 indoor units can be managed by connecting the PC to the web browser.\*1

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

### Airflow direction and airflow rate can be adjusted finely according to the schedule.

- For indoor units, LOSSNAY and general-purpose devices controlled by AE-200E, schedules by group, block and floor and for the entire building can be set.

### Detailed settings for each indoor unit can also be managed from the AE-200E

**Presetting of set temperature**  
Even if the set temperature is changed on a remote controller, the temperature can be automatically returned to the standard temperature at the specified time.

**Prevention of forgetting to turn off**  
A command to stop can be given to prevent forgetting to turn off.

**Change of set temperature according to time slot**  
The set temperature in each time slot can be changed.

**Prohibition of operation of remote controllers**  
It is possible to prohibit operation (ON/OFF, change operation mode, set temperature,) of the remote controllers.

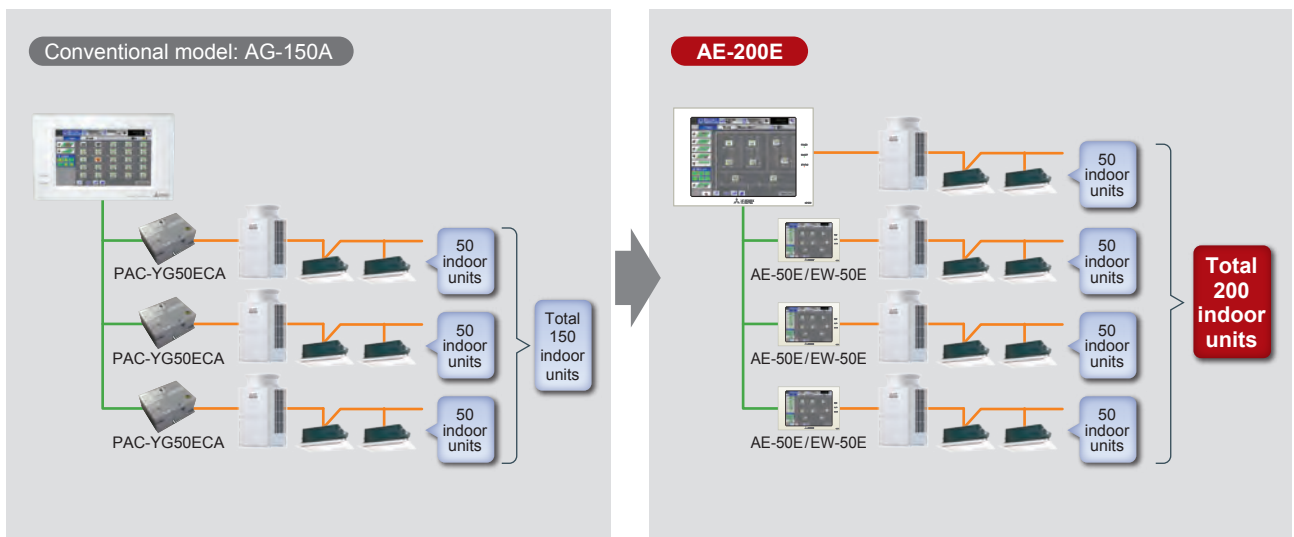
**Air flow direction and fan speed can be set**  
The air flow direction and fan speed can be set. The detailed setting improves the comfort.

**Can be set from the Web browser.**

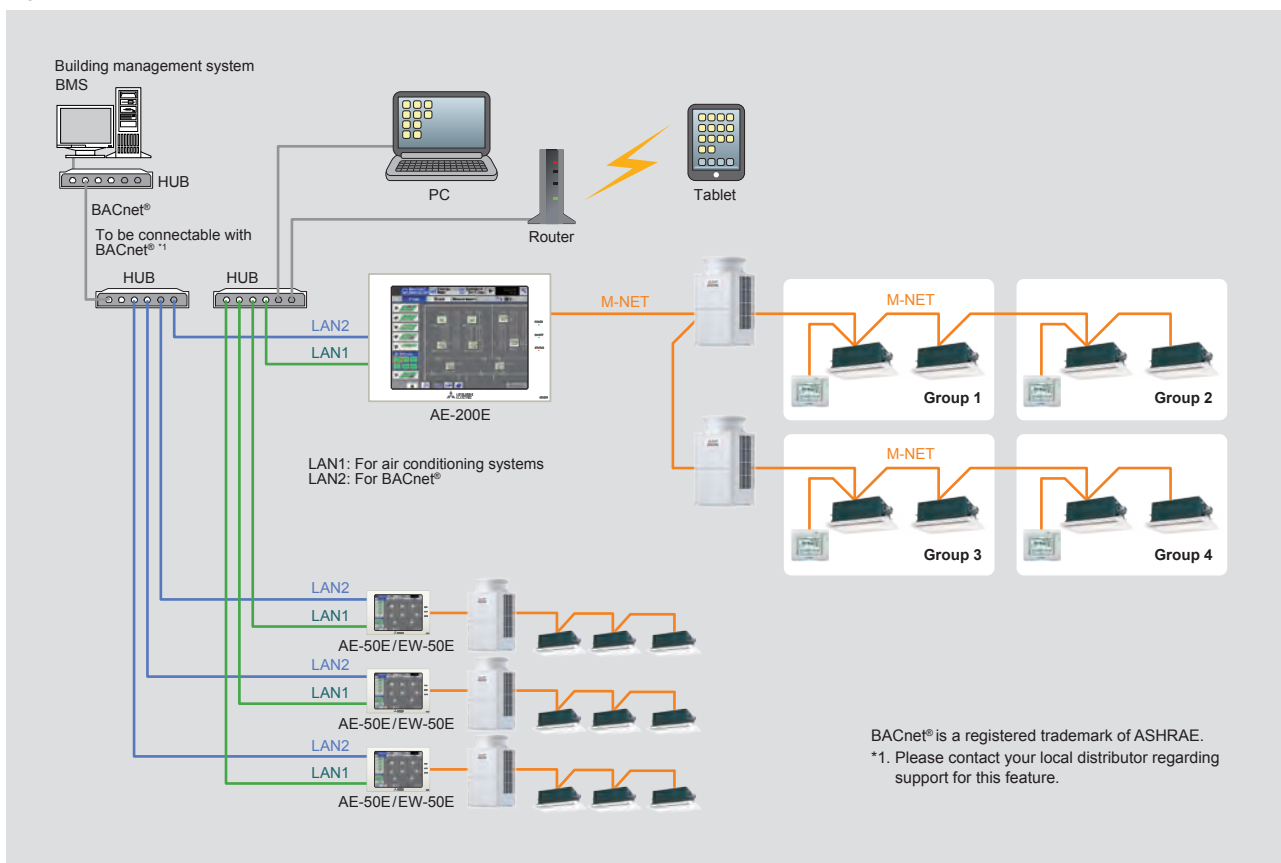
**Operation items to be prohibited can be selected arbitrarily.**

**24 times of actions per day can be set in minutes.**

### Comparing the number of connectable units



### System Structure



### Functions

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

Item	Description	Operations	Display
Controllable number of 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 LOSSNAY unit: Heat Recovery/Bypass/Auto * 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 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low Fan speed setting (including Auto) varies depending on the model.	○ ⊙ △ ●	○
Air flow direction setting	Air flow direction angles, 4-angles or 5-angles Swing, Auto (Louver cannot be set)	○ ⊙ △ ●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○ ⊙ △ ●	○
Permit/prohibit local operation	Individually prohibits operation of each local remote controller function. (ON/OFF, Operation mode, Set temperature, Filter sign reset, Air Direction*, Fan Speed*, Timer*) * This function depends on the model.	○ ⊙ △ ●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	○
Error	When an error is currently occurring on an air conditioning unit, the affected unit and the error code are displayed.	×	□ ⊙
Test run	This operates air conditioning units in test run mode.	○ ⊙ △ ●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○ ⊙ △ ●	○
External input (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.	⊙	⊙
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.	×	□ ○ ● *3
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-200E. *1	○	○
New web design	Revised web screen design for a more user friendly interface. *1	○ ⊙ △ ●	○
Apportionment of power consumption	Apportionment of power consumption can be calculated on the AE-200 *2	●	□ ● *3
BACnet® communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL. *1	○	× *3

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

\*2. Even when the number of indoor units is 50 or less, the system must consist of AE-200E and EW-50E/AE-50E.

\*3. Energy Management License Pack (optional) is required.

# Centralized Remote Controller

## Centralized controller EW-50E



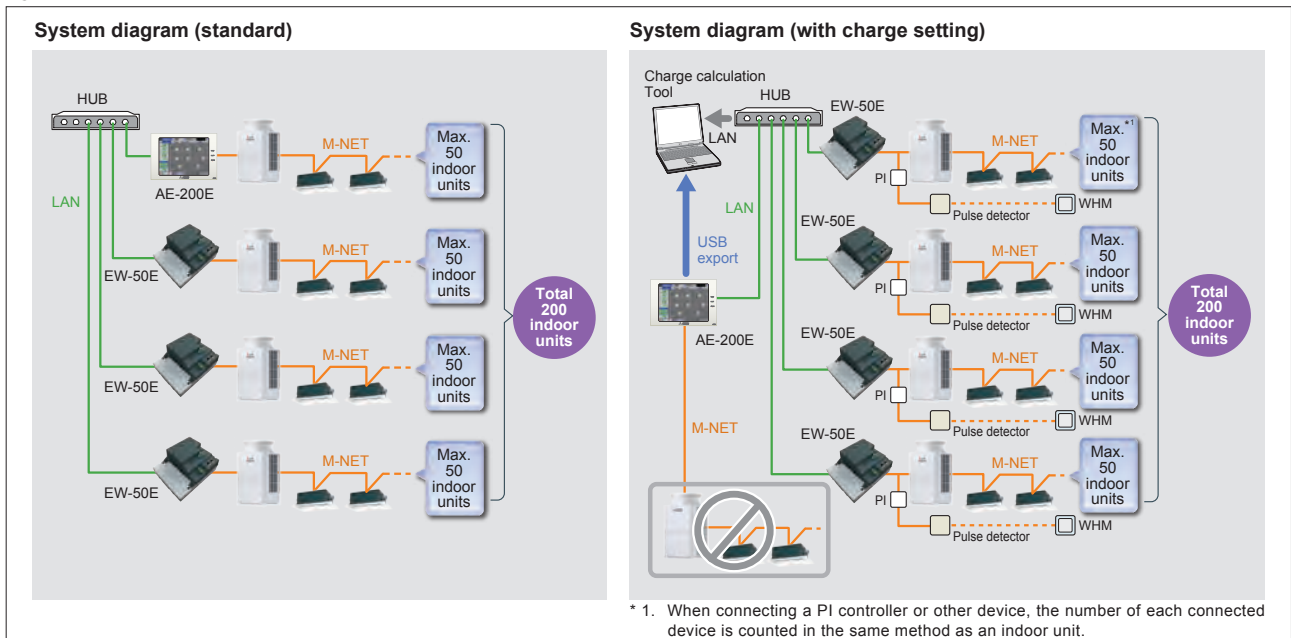
**Dimensions** 209(W) x 172(H) x 92(D) mm  
8-1/4(W) x 6-25/32(H) x 3-5/8(D) in.

### Main Features

- **Can be used as an expansion controller for the AE-200E**  
Up to 200 indoor units can be operated and monitored by connecting three EW-50E units to an AE-200E controller.
- **Function to apportion electricity charges**  
The power consumption of each air conditioner can be calculated with an AE-200E controller. The calculated data can be output to a PC via a USB memory device or LAN, and billing charges can be prepared using a specific charge calculation tool.

\*To use the function to apportion electricity charge, the AE-200E and EW-50E are required.  
\*For other restrictions, refer to the Installation Manual and Instruction Book.

### System Structure



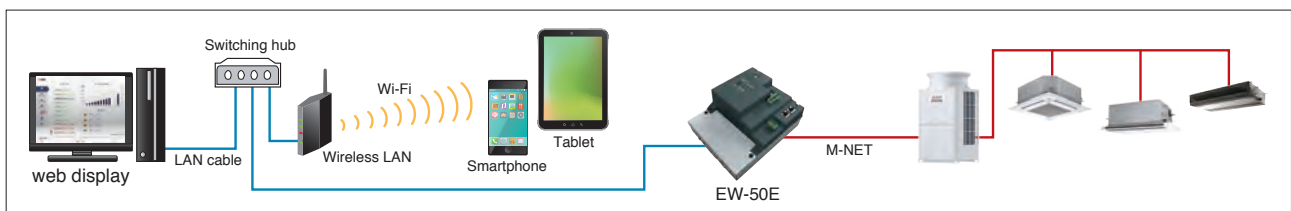
\* When the AE-200E M-NET is not used, a maximum of four EW-50E units can be connected.

### • Air conditioner units can be operated and monitored independently using a PC

Even without an AE-200E controller, the EW-50E can operate and monitor air conditioner units using browser software\*<sup>1</sup>. Air conditioners can be operated and monitored remotely via the Internet. In addition, air conditioners in multiple buildings can be operated collectively.\*<sup>2</sup>

\* 1. This operation has been confirmed on Internet Explorer 11, Edge or on Google Chrome ver.73, and Safari 12.  
Microsoft® Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.  
Google is a registered trademark of Google LLC.  
Google Chrome is a registered trademark of Google LLC. in the U.S. and other countries.  
Edge is a trademark or registered trademark of Microsoft Corporation in the U.S. and other countries.  
Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the U.S. and other countries.  
Windows is a trademark or registered trademark of Microsoft Corporation in the U.S. and other countries.  
Safari is a trademark or registered trademark of Apple Inc. in the U.S.  
Company names and product names in this brochure may be trademarks or registered trademarks of the respective rights holder.

\* 2. When connecting an EW-50E via the Internet, do not connect the EW-50E directly to the Internet. Instead, always connect via a router using the VPN function to ensure security.





• **Manage air conditioner usage conditions**

Energy consumption of air conditioners can be displayed in an easy-to-understand manner using a web browser.

\* Energy Management License Pack (optional) is required.

\* For the billing function, PI Controller and watt-hour meter with pulse transmitter (locally available one) are required.



• **Operable without the transmission line power supply unit**

The EW-50E unit is equipped with a power supply function. Power supplied by a transmission line power supply unit is not necessary. Since an outside power supply is not needed, self-sustained operation is possible even when the outdoor unit system is down. (In cases where the power consumption factor exceeds 1.5, a power supply unit is needed.)



• **Energy-saving control**

With the addition of an energy-saving control license (optional product), the set temperature can be automatically changed\* according to the room temperature around the air conditioner unit to allow greater energy savings without sacrificing comfort.

\* 1. With this function, the set temperature can be changed in +2°C/4°F increments for cooling and -2°C/4°F increments for heating during a set time interval.

In cases where the intake temperature and the set temperature are significantly different, exclusion from the energy-saving target is possible.

**Functions**

\* The functions and specifications are subject to change.

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

Item	Remarks	Setting	Display
ON/OFF	Switches air conditioners and general equipment ON or OFF.	◎	◎
Operation mode switching	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 0.5°C/1°F increments	The temperature can be set and displayed in 0.5°C/1°F increments. * With some unit combinations, the temperature is set in 1°C/2°F 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 controller to run or stop the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation. * In the Lossnay group, only ON/OFF and filter reset can be disabled. * Disabling of the fan speed, air direction, and timer operation can be set for the AT-50B, PAR-40MAA, PAR-U02MEDA, and PAC-YT52CR models.	◎	○
Room temperature display	Displays the suction temperature of the indoor unit.	—	○
Error display	Displays the current error content together with the address.	—	◎
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	◎	○
Energy management	Displays the power consumption* or operating hours. * 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	◎ <sup>*1</sup>	◎ <sup>*1</sup>
Filter reset	Filter sign reset	○	○
Connectable location	Centralized system transmission line: Connectable Recommended Indoor and outdoor transmission line: Connectable	—	—

\* Functions and specifications differ depending on the connected equipment and model.

\* Electric energy can be proportionally divided using the EW-50E alone. However, the apportioned electricity charge function requires an AE-200E.

■Notes

\* 1. Some items do not support the multi group setting and display.

■Connectable equipment: CITY MULTI

A Mr. Slim Control (Can be connected using an M-NET adapter or special outdoor unit)  
Room air conditioner (Requires a system control interface or M-NET control interface)  
Lossnay  
AI controller, PI controller, DIDO controller

# Centralized Remote Controller

Advanced Touch controller

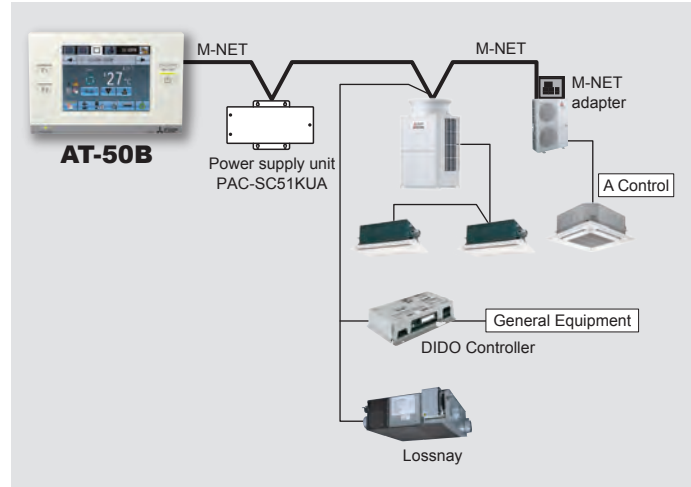
## AT-50B



**Dimensions** 180(W) x 120(H) x 30(D) mm  
7-2/16(W) x 4-3/4(H) x 1-3/16(D) in.

The color touch panel is easy to see and operate. The operation screen can be selected according to the intended use.

### System structure



## Design

### Backlit LCD Touch Panel

The 5-inch color LCD (Liquid Crystal Display) touch panel enables easy and simple operations. When the backlight is off, touching the panel turns on the backlight. The backlight will remain on for a preset length of time. The touch panel displays operation status of the units in GRID, LIST, or in GROUP form.



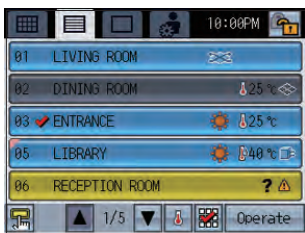
#### GRID (zoom out) screen

Displays operation status of all groups.



#### GRID (zoom in) screen

Displays the operation status details of each group by group name.



#### LIST screen

Displays the operation status details of each group.



#### GROUP screen

Displays the operation status details of each group. Sets group operations.

## Functions

### Controls 50 indoor units in all

One screen shows the operation conditions of 50 connected indoor units.

### Weekly and daily schedule

Five one-day schedule patterns and 12 weekly schedule patterns (max. 16 settings per pattern)

Two weekly schedules can be set.

### System changeover

The operation mode can be changed according to the indoor temperature settings, target temperature of each group, or a representative indoor unit.

### Main system controller/Sub-system controller

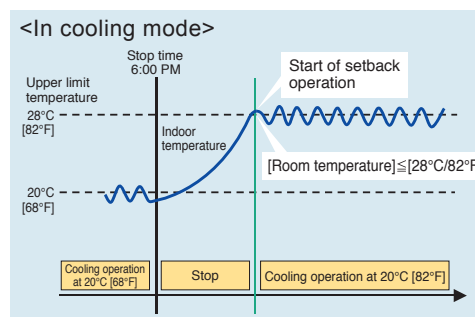
The AT-50B can be used as any of the main and sub system controllers. When it is connected to a system controller, such as the AE-200E, it is used as a sub controller. When some units of the AT-50B are connected, the main and sub controllers can be determined.

### Functions [Basic Functions]

- ON/OFF
- Temperature setting
- Airflow direction setting
- Operation mode switching
- Fan speed setting
- Louver setting

### Night setback function

When the room temperature goes outside of a certain range during the predetermined period, this function automatically starts heating or cooling operation to prevent dew condensation or an excessive temperature increase in the room.



### Simple button arrangement

The F1 and F2 buttons beside the main screen can be customized for frequently used functions. (Schedule/Operation Mode/Temperature Correction/Remote Controller Restriction)

### Advanced Functions

□: Each unit ○: Each group ◎: Group or collective ×: Not available

Item	Description	Operations	Display
Permit / Prohibit	The ON/OFF, operation mode, setting temperature, fan speed, air direction, filter sign reset operations, and timer using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the LOSSNAY group. *The settable items vary depending on the models.	◎	◎
Operation lock	The operation lock can be set to the input operation of the AT-50B. Each button can be set. (Function Button 1, Function Button 2, Collective ON/OFF, Touch Panel) Each function can be set. (Operation mode, Setting temperature, Fan speed, Menu button) The password for the lock release can be set.	◎	◎
Error display	When an error is occurring on an air conditioner unit, the affected unit and the error code are displayed. * When an error occurs, the "ON/OFF" LED flashes. The operation monitor screen shows an abnormal icon over the unit. The error monitor screen shows the abnormal unit address and error code. The error log monitor screen shows the time and date, the abnormal unit address, error code, and source of detection.	×	□◎
Ventilation (independent)	Switches the mode "Bypass/Heat recovery/Auto" for LOSSNAY groups.	◎	◎
Ventilation (interlocked)	The LOSSNAY will run in interlock with the operation of the indoor unit. The mode cannot be changed. The LED will turn ON during operation after interlocking.	◎	◎
Temperature set limitation	Batch-setting to temperature range limit in cooling, heating, and auto modes. This function cannot be used with the MA remote controller. (Depends on the indoor unit model.)	◎	◎
Specific mode operation prohibit (Cooling prohibit, heating prohibit, cooling/heating prohibit)	When set as the main controller, operation of the following modes with the local remote controllers can be prohibited: When cooling is prohibited: Cooling, dry, automatic can not be chosen. When heating is prohibited: Heating, automatic can not be chosen. When cooling/heating is prohibited: Cooling, dry, heating, automatic can not be chosen.	◎	◎
External input (Emergency stop input, etc.)	The following input with level signals or pulse signals are available. Level signal: "Emergency stop input" or "Collective ON/OFF" Pulse signal: "Collective ON/OFF" or "Local remote controller prohibit/permit" One input can be selected from those above. * An external input/output adapter (PAC-YT51HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	◎	◎
External output (Error output, operation output)	"ON/OFF" and "error/normal" are output with the level signal. * An external input/output adapter (PAC-YT51HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	◎	◎
Checking the Gas Amount	Use this function to check for a refrigerant leak from the outdoor unit. * When this function is used, the gas amount checking function of the outdoor unit cannot be used. This function is for CITY MULTI R2 and Y (PUMY is excluded.) Series only.	□	□
Schedule operation	Weekly schedule setting of up to 12 patterns is available. In one pattern, up to 16 settings for "ON/OFF", "Operation mode", "Set Temperature", "Fan speed", "Air flow direction", and "Permit / Prohibit local operation" can be scheduled. Two types of weekly schedules (Summer/Winter) can be set. Today's schedule allows setting of up to 5 patterns.	○	○

\* Depending on the installation conditions, power supply unit (PAC-SC51KUA) is required. Please contact your local distributor or MITSUBISHI ELECTRIC branch office for further information.

# Centralized Remote Controller

ON/OFF remote controller

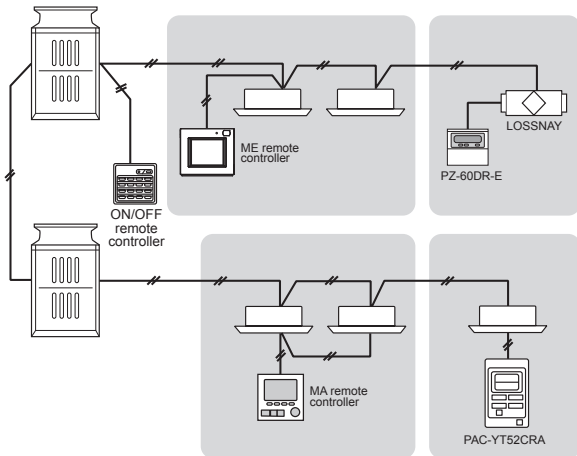
## PAC-YT40ANRA

Just press a switch to start. All of the units can be switched ON/OFF by pressing the main switch, and each unit in the group can be switched ON/OFF with individual switches. The PAC-YT40ANRA also has a hardwired connection available (ON/OFF input, fire alarm input, run output, fault output).



**Dimensions** 130(W) x 120(H) x 19(D) mm  
5-1/8(W) x 4-3/4(H) x 3/4(D) in.

### System example



- **Control of up to 16 groups/50 indoor units is possible**
  - Up to 16 groups/50 units can be operated with one ON/OFF remote controller.
  - A general-purpose interface is available for control, allowing general devices to also be turned ON and OFF.
- **Just press a switch to start**
  - All of the units can be started and stopped by pressing the main switch, and each unit in the group can be started and stopped with individual switches.
- **LED flashing during failure**
  - If any error should occur in the air conditioner, its details can be confirmed easily with the flashing LED. The LED also indicates whether each group is running or stopped.
- **Interlock operation with external system is possible**
  - It can be flexibly interlocked with a card reader, fire alarm system, or building management system, etc., using the incorporated external input/output function.
- **Flexible group setting**
  - Groups can be easily configured, allowing the group pattern to be freely set according to the layout.
  - The ON/OFF remote controller can be connected at the indoor/outdoor transmission line without the power supply unit.

#### NOTE

The dual set point function is available depending on the controller version. Please contact your local distributor regarding the availability of this function.

○: Each group □: Batch only ×: Not available

Function	Description	PAC-YT40ANRA	
		Operations	Display
UNITS	Max No.Units	50 units/16 groups	
ON/OFF	ON and OFF operation	○	○
Error indication	LED flashes during failure. (The error code can be confirmed by removing the cover.)	×	○
Ventilation operation (Independent)	Group operation of only LOSSNAY units possible. *Only ON/OFF of group.	○	○
Ventilation operation (Interlocked)	The LOSSNAY will run in interlock with the operation of the indoor unit. *The fan rate and mode cannot be changed. The LED will turn ON only during operation after interlocking.	○	○
External input	On and Off operation / Fire Alarm*	□	×
External output	On and Off operation / Faults*	×	□

\* Applicable to collective only  
Not applicable to groups

# Individual Remote Controller

## Wired MA remote controller PAR-40MAA



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

### Highlight display

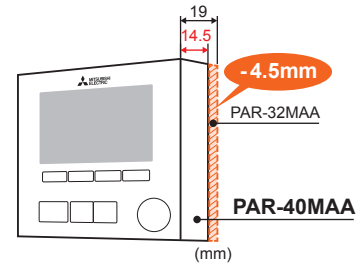
The screen background can be set to black to suit the ambience of the room.



\*Factory setting : White

### More slim

Compared to the previous version (PAR-32MAA), This remote controller is slimmer by 4.5 mm (depth), allowing for more flexible installation.



### • Backlit LCD (Liquid Crystal Display)

Large, easy-to-see display  
Full-dot LCD display with large characters for easy viewing  
Contrast also adjustable

### • Night Setback

When the room temperature goes outside of a certain range during the predetermined period, this function automatically starts heating or cooling operation to prevent dew condensation or an excessive temperature increase in the room.

### • 3D i-see sensor\*

Settings for 3D i-see sensor can be performed.

### • Draft reduction\*

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

### • Auto descending panel\*

Panels can be lowered/raised using the remote controller. The descending distance of the panel can also be selected.

\*The availability of the function depends on the indoor unit model. For details, please contact your local distributor.

## Functions

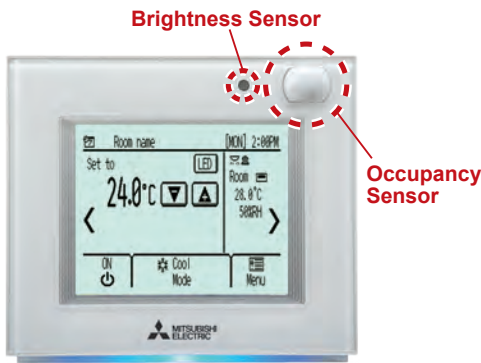
○: Each group    ✕: Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Auto / Heat.	○	○
Room temp. 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 above information needs to be entered in advance.) * An error code may not appear depending on the error.	—	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode, temperature, filter sign reset, air direction, fan speed and timer. * While an operation is prohibited, the operation icon lights up (only on the Main display in "Full" mode).	✕	○
Operation lock	The following operations can be prohibited: "Location," "ON/OFF," "Mode," "Set temp.," "Menu," "Fan," "Louver," or "Vone."	○	○
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 saving time	The start / end time for daylight saving time can be set. The daylight saving time function will be activated based on the setting contents.	○	○

# Individual Remote Controller

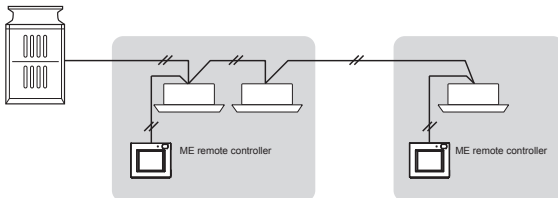
ME remote controller

## PAR-U02MEDA



**Dimensions** 140(W) x 120(H) x 25(D) mm  
5-9/16(W) x 4-3/4(H) x 1(D) in.

### Example of system configuration



### • Occupancy Sensor

The occupancy sensor detects when the room is empty and provides energy-saving control.

### • Touch Panel & Backlit LCD

The operation settings screen is a touch panel. When the backlight is off, touching the panel turns on the backlight. The backlight will remain on for a preset length of time.

### • LED Indicator

The color of the LED indicator indicates operation status. The LED indicator is lit during normal operations, and is not lit when units are stopped. In case of error, the indicator blinks.

### • Brightness Sensor

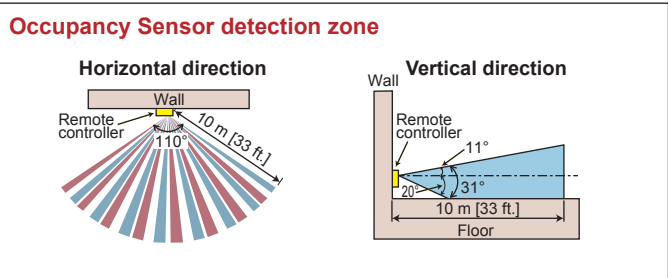
The brightness sensor detects brightness in the room and provides energy-saving control.

### • Temperature & Humidity Sensor

The sensor detects room temperature and relative humidity.

### • Device control via AHC (Advanced HVAC Controller)

Products from other manufacturers can be connected via AHC.



### Functions

○: Each group    ✕: Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Heat / Auto. Operation modes vary depending on the indoor unit model.	○	○
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 information above 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 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.	○	○

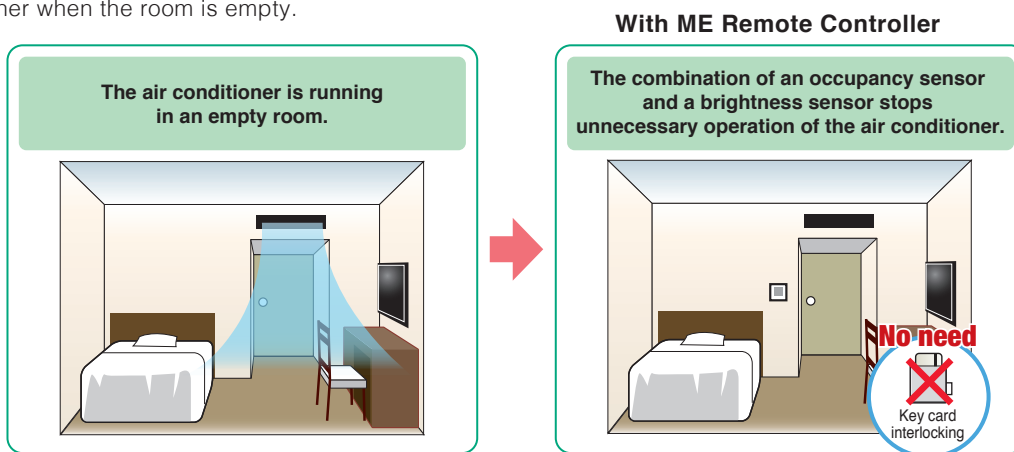


### Example of use of PAR-U02MEDA

#### Automatic turning off air conditioners

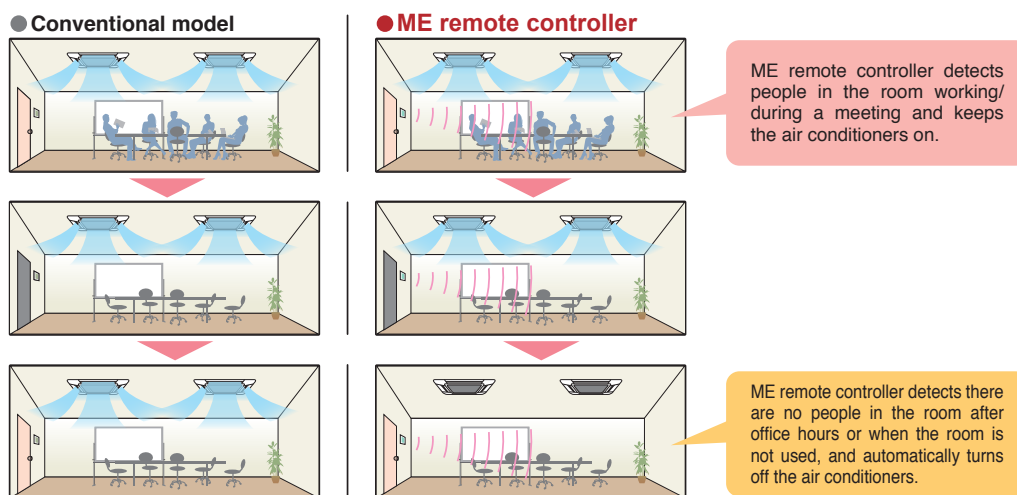
For Hotels

Mitsubishi Electric remote controller has an occupancy sensor to automatically turn off the air conditioner when the room is empty.



The occupancy sensor of the ME remote controller detects the conditions in the room, and the ME remote controller will automatically turn the air conditioners on or off.

For Offices

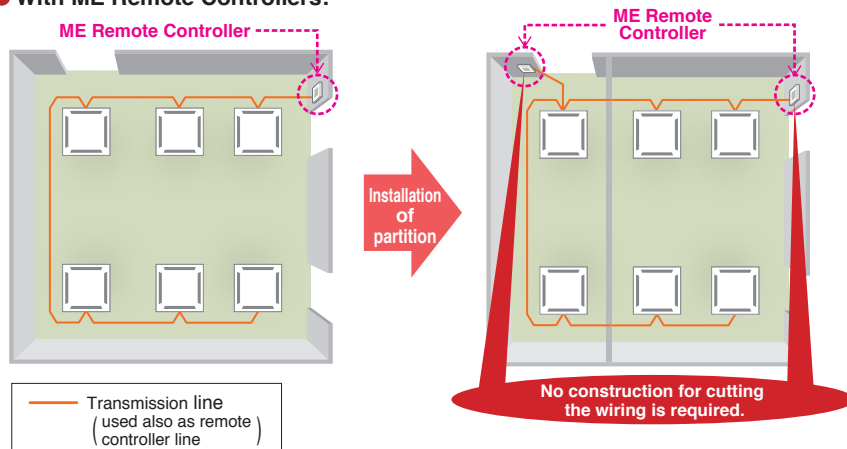


Partitioning can be installed later when a ME Remote Controller is used.

For Offices

For Commercial Facilities

● **With ME Remote Controllers:**



The ME remote controller can be operated when it is connected with any of the indoor units. When changing the room layout, you can set the groups easily with the remote controller.

# Individual Remote Controller

## MA remote controller PAR-CT01MAA-S



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

### • User-friendly

Large icons are easily visible on the full color touch panel display.

### • Flexibility

Customized display, color of parameter and background, editable parameter on the initial display.

### User-friendly

Full color touch panel display



Touch Panel



3.5 inch/HVGA  
Full Color LCD

### Operation panels



Temperature setting



Operation mode



Fan speed



Vane control



Ventilation



Louver control

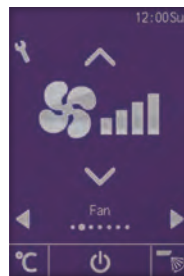
### Flexibility

#### Multiple color patterns

180 color patterns can be selected for the display's control parameters or background.

#### Control parameter customization

Users can customize the panel to display the selected parameters only.

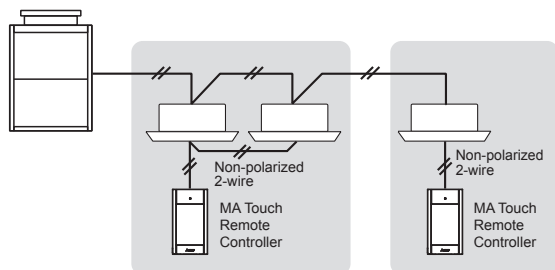


Available in a wide variety of colors to suit the decor of any room.



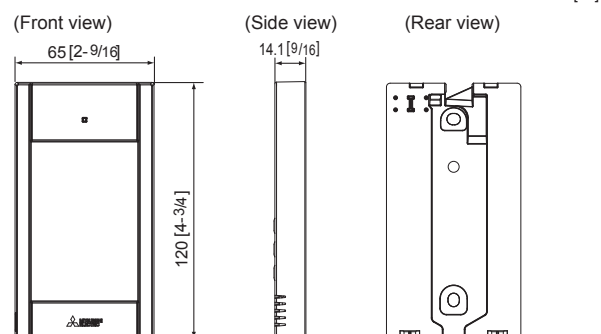


## System example



\*When a PAR-CT01MAA is connected to a group, no other MA remote controllers can be connected to the same group.

## External dimension



## Functions

○: Each group    ×: Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Auto / Heat.	○	○
Temperature setting *1	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.	○	○
Daylight saving time	The start/end time for daylight saving time can be set. The daylight saving time function will be activated based on the settings.	○	○
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.	—	○
Touch panel	The touch panel can be cleaned and calibrated.	—	○
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, 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.	○	×
Design	The color of the screen can be changed.	○	○

\*1 Temperature will be displayed either in Celsius in 0.5- or 1-degree increments, or in Fahrenheit, depending on the indoor unit model and the display mode setting on the remote controller.

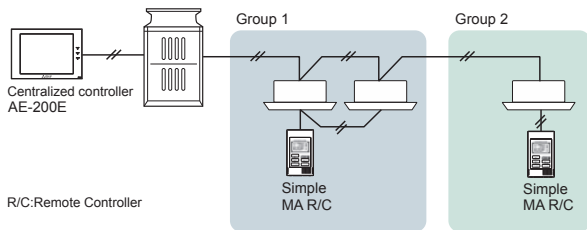
# Individual Remote Controller

## Simple remote controller PAC-YT52CRA (MA)



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

### Example of system configuration



#### • Backlit LCD


Backlight for operation in dark areas

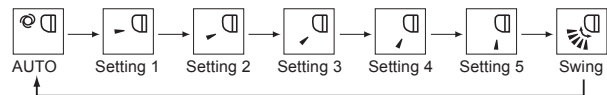
#### • Flat back

Slim and flat type. Hole-free installation on walls  
Less than 14.5 mm [19/32 in.] thick.


#### • Vane button (standard)

A vane adjustment button has been added to allow the user to change the direction of the air flow (ceiling-cassette and wall-mounted types).

Pressing the  button will switch the vane directions.



\* Air flow direction settings will vary depending on the connected indoor unit model.

\* For models without a vane adjustment function, air flow direction cannot be set. In such cases, the vane icon blinks when the  button is pressed.

#### • Only cross-over wiring based on two-wire signal lines is required.

#### • Room temperature sensor is built-in.

#### • Can be used to operate all types of indoor units.

\*As this controller has limited functions, please use it in conjunction with the standard controller or a central controller.

#### • LCD temperature settings and display are in 1°C /2°F increments.

## Functions

: Each unit    : Each group    : Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	<input type="radio"/>	<input type="radio"/>
Operation mode switching	Switches between Cool / Dry / Fan / Heat / Auto. Operation modes vary depending on the indoor unit model.	<input type="radio"/>	<input type="radio"/>
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	<input type="radio"/>	<input type="radio"/>
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	<input type="radio"/>	<input type="radio"/>
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.	<input type="checkbox"/>	<input type="radio"/>
Error	Displays the current error status with the address. * The address may not be displayed depending on the error status.	<input type="checkbox"/>	<input type="checkbox"/>
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 LOSSNAY unit (LGH-R(V) X Type) is possible.	<input type="radio"/>	<input type="radio"/>
Set temperature range limit	The preset temperature range can be restricted for each operation mode (COOL/HEAT/AUTO).	<input type="radio"/>	<input type="radio"/>

# Wireless remote controller



## PAR-FL32MA

### Dimensions

58(W) x 159(H) x 19(D) mm  
[2-5/16(W) x 6-5/16(H) x 3/4(D) in.]



## PAR-SL100A-E

(PLFY-P VEM-PA, PLFY-P VFM-E1, PKFY-P VLM-E only)

### Dimensions

66(W) x 188(H) x 22(D) mm  
[2-5/8(W) x 7-13/32(H) x 7/8(D) in.]



## PAR-FA32MA

### Dimensions

70(W) x 120(H) x 22.5(D) mm  
[2-3/4(W) x 4-3/4(H) x 7/8(D) in.]



## PAR-SE9FA-E

(PLFY-P VEM-PA signal receiver)

### Dimensions

273(H) x 29(D) mm



## PAR-SF9FA-E

(PLFY-P VFM-E1 signal receiver)

### Dimensions

214(H) x 25.5(D) mm



## PAR-SL94B-E

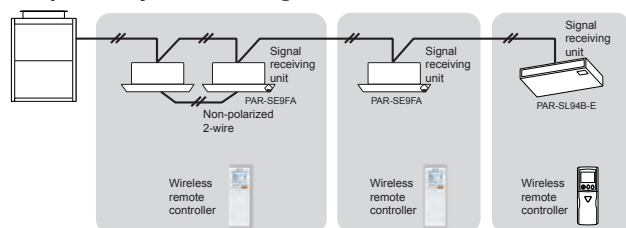
(Wireless remote controller kit for ceiling-suspended type)

### Dimensions

182(W) x 57(H) x 31(D) mm/  
58(W) x 159(H) x 19(D) mm  
[7-3/16(W) x 2-1/4(H) x 1-1/4(D) in.]  
[2-5/16(W) x 6-5/16(H) x 3/4(D) in.]

- No need to configure addresses for group operation
- Lit LED keeps you informed of operation - the LED also provides you with error codes via the number of blinks
- Can be used with the MA remote controller
  - \*When used in group configurations, wiring between indoor units is required.
  - \*Combining ME remote controller and/or LOSSNAY remote controller in a group is not possible.
- Multiple indoor units cannot be controlled from the PAR-SL100A-E  
Only one indoor unit can be used in each group
- LCD temperature setting and display in 1°C / 2°F increments

### Example of system configuration



### Compatibility table

Indoor unit model	Receiver	Transmitter
PMFY-P VBM-E PLFY-P VLMD-E PFFY-P VKM-E PEFY-P VMR-E/R/VMH(S)-E(2) PFFY-P VLEM/VKM/VCM/ VLRM(M)-E PEFY-P VMS1(L)-E PEFY-VMA(L)(3)-E	PAR-FA32MA	PAR-FL32MA
PCFY-P VKM-E	PAR-FA32MA PAR-SL94B-E*1	PAR-FL32MA PAR-SL100A-E
PKFY-P VLM-E	Built-in	PAR-FL32MA PAR-SL100A-E
PKFY-P VKM-E	Built-in	PAR-FL32MA
PLFY-P VEM-PA	PAR-FA32MA*2 PAR-SE9FA-E*2	PAR-FL32MA*3 PAR-SL100A-E
PLFY-P VFM-E1	PAR-FA32MA*2 PAR-SF9FA-E*2	PAR-FL32MA*3 PAR-SL100A-E

\*1 PAR-SL94B-E includes wireless remote controller.

\*2 Receiver is not required when using the panel with signal receiver.

\*3 PAR-SL100A-E is required for using direct/indirect setting and individual vane setting.

## Functions

○: Each group    ×: Not available

Item	Description	Operations	Display
ON/OFF	ON and OFF operation for a single group	○	○
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	○	○
Air flow direction setting	Air flow direction angles (4-angle, Swing) Auto Louver ON/OFF. Air flow direction settings vary depending on the model.	*1	*1
Timer operation	One ON/OFF setting can be set per day.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (ON/OFF, Change operation mode, Set temperature, Reset filter). *3 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.	×	○*3
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	×

\*1 Some models will have a different display for the air flow direction and fan speed.

Set the air flow direction and fan speed when performing initial setting.

\*2 The fan rate and mode cannot be changed.

## Open network supported

The following options are available to enable connection of CITY MULTI to an open network.

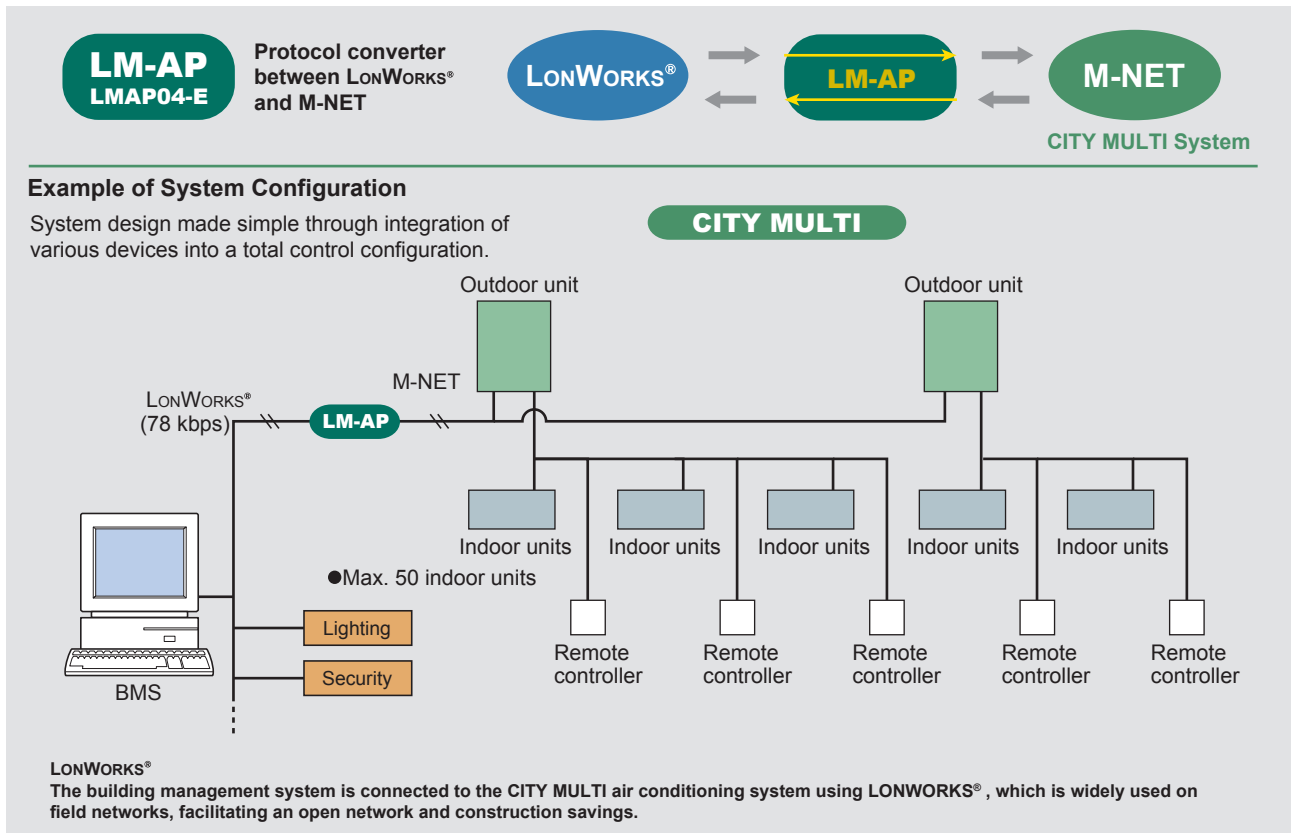
### LONWORKS® (LMAP04-E)

CITY MULTI can easily combine into a Building Management System (BMS) via the LONWORKS® and M-NET adapter LMAP04-E. LONWORKS® is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS management via LONWORKS®.



#### One LM ADAPTER unit can connect up to 50 Groups/50 indoor units

Using a single LONWORKS® adapter (LM-AP), you can connect up to a maximum of 50 indoor units.



LON, LONWORKS® and the Echelon logo are trademarks of Echelon Corporation registered in the United States and other countries.

#### LONWORKS® Function

FUNCTION	CONTENT
<b>Control</b>	
ON/OFF	ON / OFF
Mode Operation	Cool / Dry / Heat / Auto / Fan
Set point Adjustment	Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Fan Speed Control	High / Mid-1 / Mid-2 / Low
Permit / Prohibit	ON / OFF, Mode, Set point
Emergency Stop	-
<b>Monitoring</b>	
ON/OFF	ON / OFF
Mode	Cool / Dry / Heat / Auto / Fan
Set point	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]
Fan Speed	High / Mid-1 / Mid-2 / Low
Permit / Prohibit	On / Off, Mode, Set point
Alarm State	Normal / Error
Room Temperature	-10-50°C (14-122°F)
Thermo ON/OFF	ON / OFF

# BACnet®

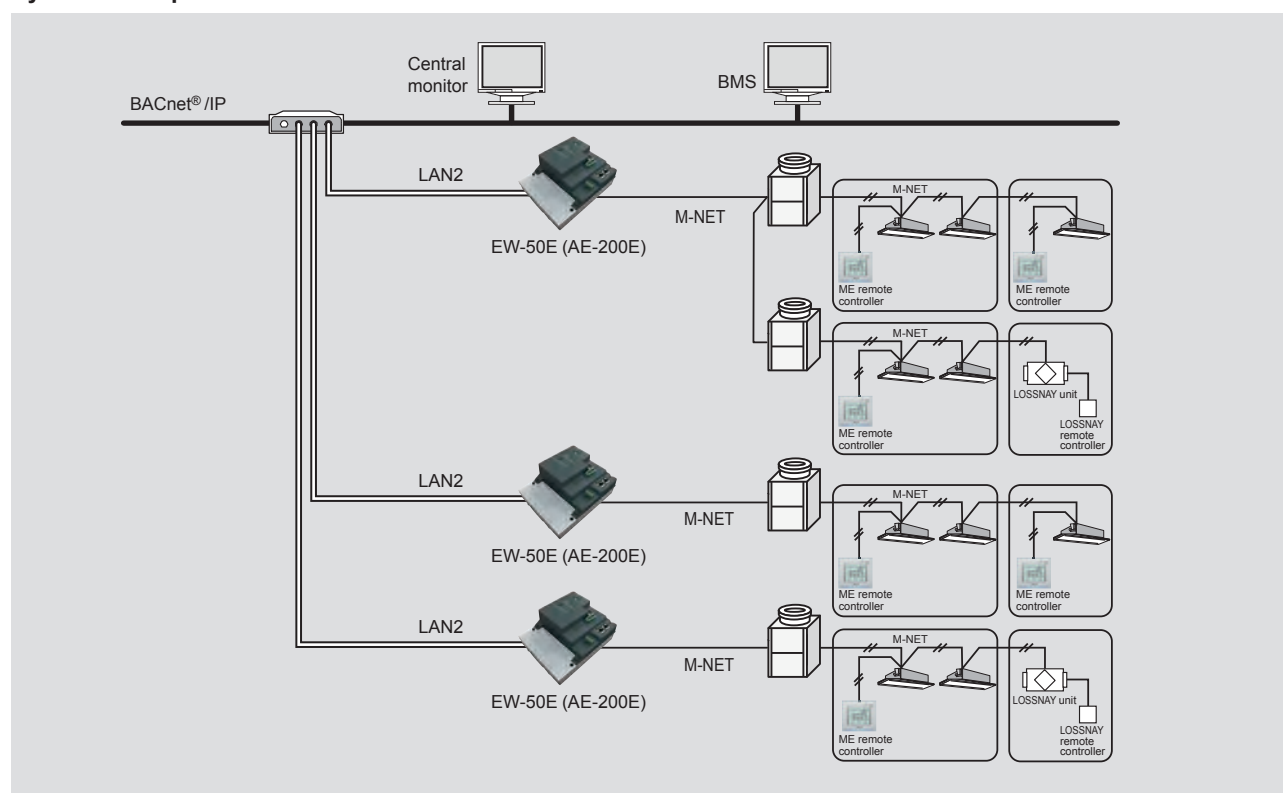
CITY MULTI can easily combine into a Building Management System (BMS) via EW-50E (AE-200E). BACnet® is an open transmission protocol widely used at BMS, and related equipment control. CITY MULTI is compatible with large-scaled BMS management via BACnet®.

Dual  
Set  
Point

## EW-50E (AE-200E) can control up to 50 units/groups (including LOSSNAY).

\*To use the BACnet® function on EW-50E (AE-200E), BACnet® license registration is required.

### System example




### BACnet® and M-NET Function

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

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

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

 Warning

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

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