MITSUBISHI ELECTRIC

Changes for the Better

for a greener tomorrow eco Changes

AIR CONDITIONING SYSTEMS

CITY MULTI

FULL PRODUCT LINEUP CATALOGUE



CM20LA



Mitsubishi Electric's unparalleled air conditioning systems

Mitsubishi Electric is a globally-renowned household name with a solid reputation for excellent products and services. The company was founded under the present name of Mitsubishi Electric in 1921. Since our founding, we have risen to the very pinnacle of the air-conditioning industry and we continue to maintain that position.

We are proud of our achievements in providing some of the most energy-efficient systems on the market.



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Installation Information ····· P.103



Outdoor Units

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

System	Air cooled												
Type	Heat pump												
Model name	Y-Series 208-230 V type						Y-Series 380-415 V type						S-Series
	PUHY-P TKA(-BS)			PUHY-P TSKA(-BS)			PUHY-P YKB-A1(BS)			PUHY-P YSKB-A1(BS)			PUMY-SP VKM(-BS)
Model	 size S size L size XL						 size S size L size XL						
modules / HP	S	L	XL	S	L	XL	S	L	XL	S	L	XL	-
4.5HP P112													4.5
5HP P125													5
6HP P140													6
8HP P200	8						8						
10HP P250	10						10						
12HP P300	12							12					
14HP P350		14						14					
16HP P400		16						16		8 8			
18HP P450		18							18	8 10			
20HP P500			20						20	10 10			
22HP P550				10 12						10	12		
24HP P600				10	14					10	14		
26HP P650				10	16						12 14		
28HP P700				10	18						14 14		
30HP P750				12	18						14 16		
32HP P800					16 16						14	18	
34HP P850					16 18						16	18	
36HP P900					18 18							18 18	
38HP P950					18	20				10	12 16		
40HP P1000						20 20					12 12 16		
42HP P1050				12 12	18						12 14 16		
44HP P1100				12	14 18						14 14 16		
46HP P1150					14 16 16						14 14	18	
48HP P1200					16 16 16						14 16	18	
50HP P1250					16 16 18						14	18 18	
52HP P1300					16 18 18						16	18 18	
54HP P1350					18 18 18							18 18 18	
56HP P1400					18 18	20							
58HP P1450					18	20 20							
60HP P1500						20 20 20							

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

Y-Series

Cooling or Heating Heat pump

- Features ..... P.8 - P.9
- Technology introduction ..... P.10 - P.13
- Outdoor unit functions ..... P.14 - P.17
- Specifications 208–230 V **PUHY-P TKA(-BS)** ..... P.18 - P.28
  380–415 V **PUHY-P YKB(-BS)** P.29- P.39
- Optional parts P.40



*This image shows the 208-230 V type.

A two-pipe zoned system designed for heat pump operation

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

• Installation image



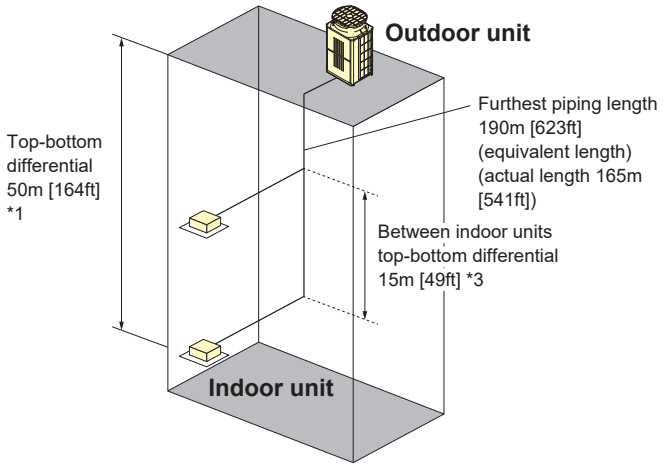
*For details of the installation restrictions, refer to the DATABOOK.

SYSTEM PIPE LENGTHS

• Y-Series 208–230 V [P200–P1500]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	1,000 [3,280]
Maximum allowable length	165 (190 equivalent) [541(623)]
Farthest indoor from first branch	40 [131]*2

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]*1
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]*3

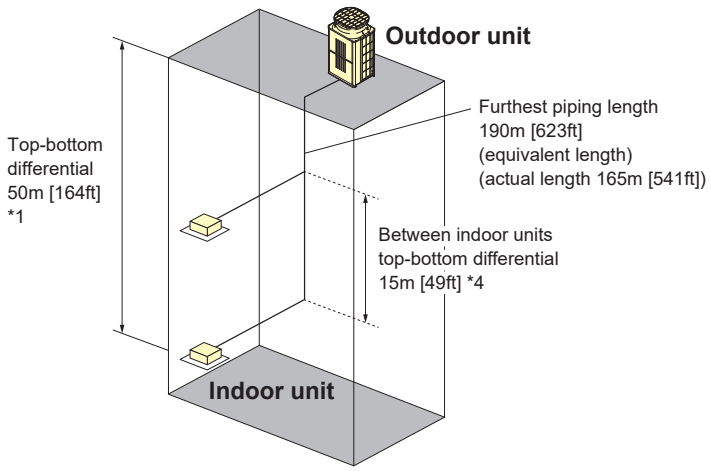


*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after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

• Y-Series 380–415 V [P200–P1350]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	1,000 [3,280]
Maximum allowable length	165 (190 equivalent) [541(623)]
Farthest indoor from first branch	40 [131]*3

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]*1
Indoor/outdoor (outdoor lower)	40 [131]*2
Indoor/indoor	15 [49]*4



*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2 60m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*3 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.
*4 30m is available. If the height difference between indoor units exceeds 15 meters (but does not exceed 30 meters), use one-size larger pipes for indoor unit liquid pipes.

Air-Cooled Units (Cooling or Heating)

Y-Series

A wide lineup of standard models meets customers' requirements in various commercial and residential facilities. Two models of Y-Series, 208-230 V model and 380-415 V model, offers flexible options to match the various local power sources.

208–230 V type PUHY-P TKA



8HP to 60HP

P.18 - P.28

380–415 V type PUHY-P YKB-A1



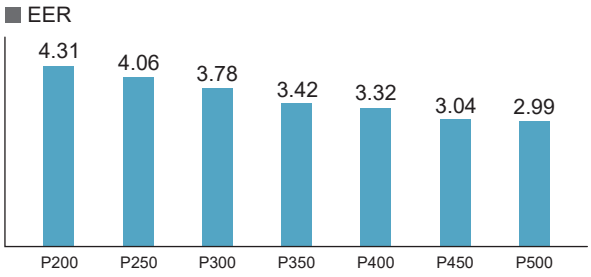
8HP to 54HP

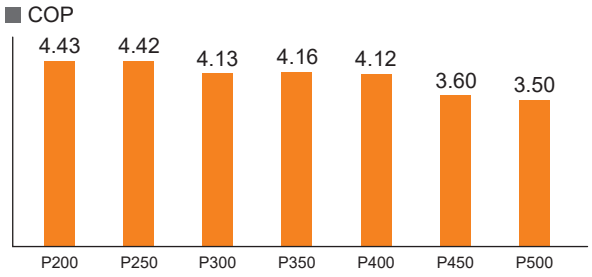
P.29 - P.39

Highly energy efficient

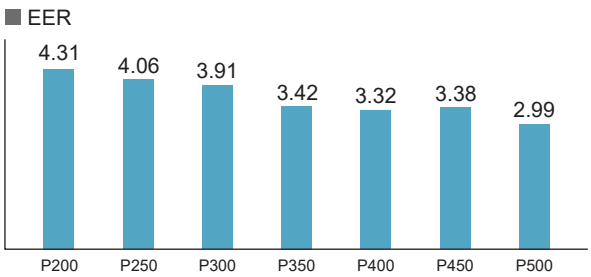
The Y-Series has various advanced technologies, including inverter driven system, own manufactured electrical parts, and HIC circuit to realize industry top class energy-saving performance. Both 208-230 V model and 380-415 V model have achieved EER 4.31 (P200), which contribute to reduce power consumption.

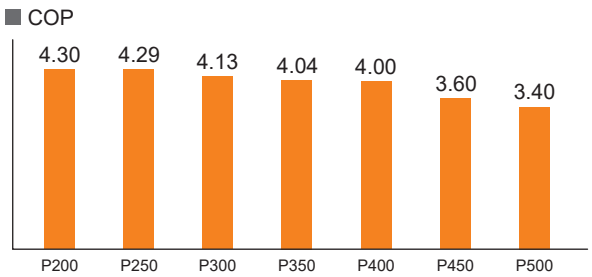
208–230 V type





380–415 V type



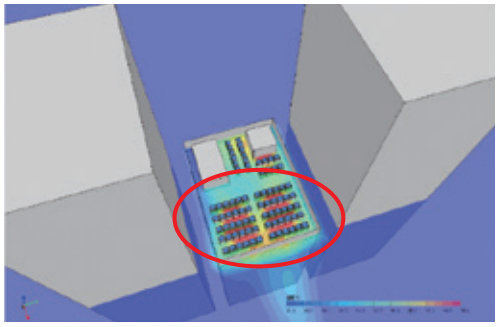


Wide operation range

In built-up areas where the passage of air is blocked, the warm air that is discharged from the outdoor units may cause high temperatures around the units. The Y-Series has a guaranteed operation range of up to 52°C [126°F], so it can be used reliably even if the outdoor air temperature rises abnormally during the hot summer daytime.

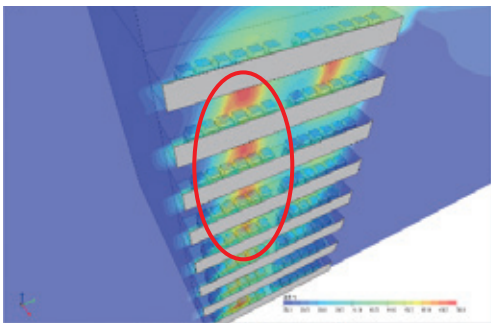
Example of flow analysis Conditions: Outdoor air temperature = 35°C (DB), Room temperature = 27°C (DB)

Built-up area with buildings and outdoor units



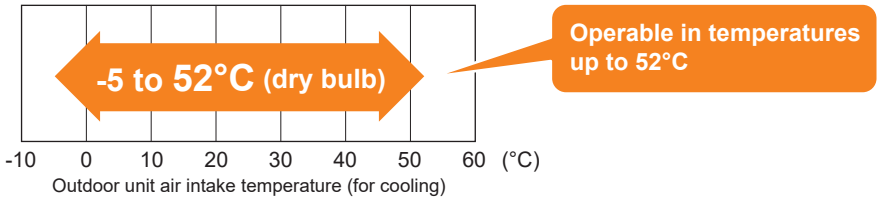
If the passage of air is blocked in a built-up area, the high temperature air discharged from the outdoor units may linger around the units.

Installation on each floor a high-rise building



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

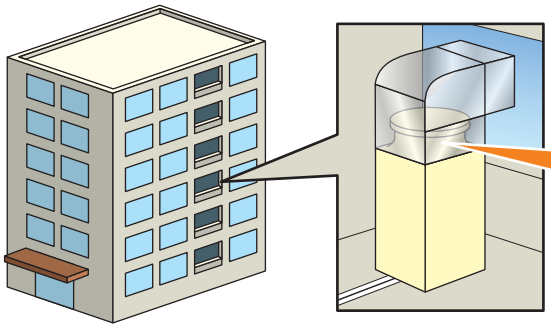
• Cooling operation temperature range



Selectable external static pressure of the outdoor unit

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

* The static pressure that can be set varies depending on the model.
* Noise level and power consumption vary depending on the static pressure setting.
* For details of the installation restrictions, refer to the DATABOOK.



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

Maximum external static pressure 60 Pa (local setting)

* PUHY-P TKA(-BS), PUHY-P YKB(-BS)

Inverter-driven compressor technology

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



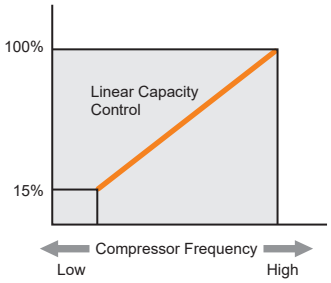
Compressor

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

When an inverter-driven system operates at partial load, the energy efficiency of the system is significantly higher than that of a standard fixed speed, non-inverter system.
The fixed speed system can only operate at 100%, but partial load conditions prevail for the majority of the time. Therefore, it cannot match the annual efficiency of an inverter-driven system.

With its proven single inverter-driven compressor technology, the CITY MULTI series is favored by the industry for its low starting currents (a mere 8 amps for a 20HP outdoor unit) and smooth transition across the range of compressor frequencies.

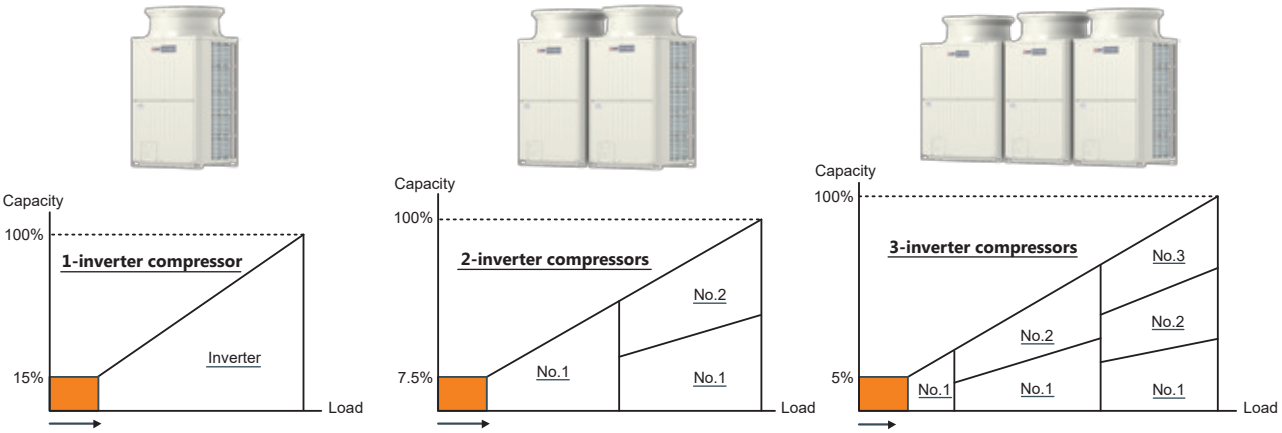
• Heating/Cooling Capacity



* Image

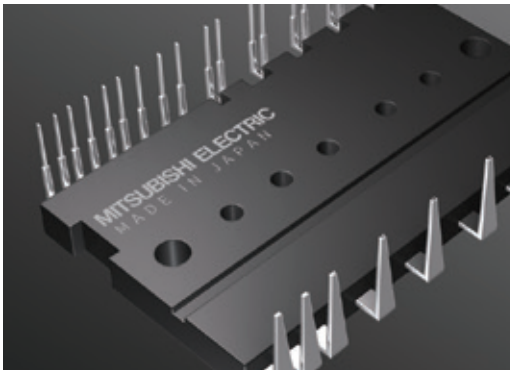
*Values vary depending on actual conditions, such as ambient temperature.

• Stable and Smooth Operation



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. SiC (silicon carbide) is used in the power module that is equipped with a voltage-boosting circuit to raise the output voltage of the inverter and expand the operating range. This greatly reduces the power loss of the voltage boosting circuit and helps improve the energy efficiency of the unit (EER and SEER improvement).

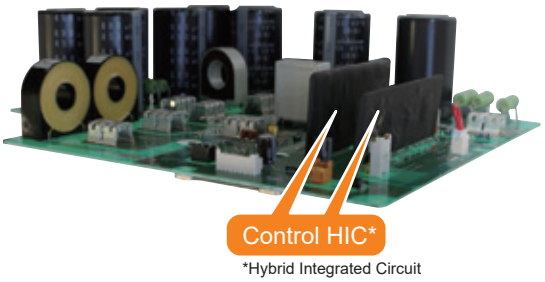


*1. IPM(compressor) and SiC elements are not used in Y-Series 208-230V.
IPM(fan) is installed in the 8HP to 20HP (P200 to P500) single modules and the 22HP to 60HP (P550 to P1500) combination modules.

*2. IPM(compressor) is installed in the 12HP to 20HP (P300 to P500) single modules and the 22HP to 54HP (P550 to P1350) combination modules.
IPM(fan) is used in the 8HP to 20HP (P200 to P500) single modules and the 16HP to 54HP (P400 to P1350) combination modules.
SiC elements are used in the 18HP and 20HP module IPM.

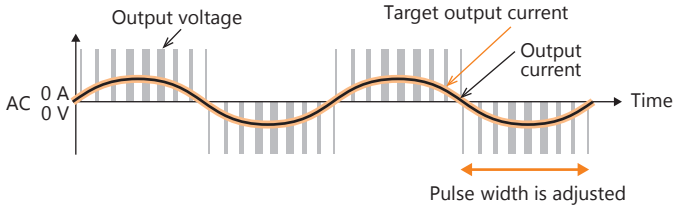
PWM control

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



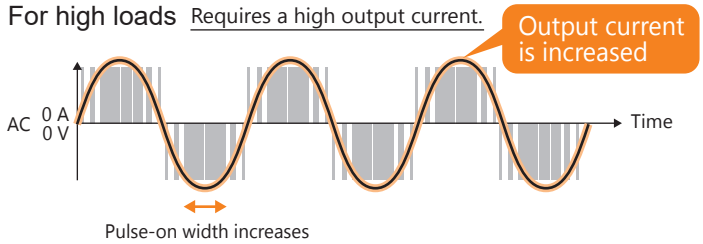
*Hybrid Integrated Circuit

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



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

• For high loads Requires a high output current.



The increased pulse-on width increases both the duration that the voltage is applied and the amount of electrical current compared to the low load time, and accelerates the rotation speed of the compressor from 60 rps to 120 rps.*

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

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

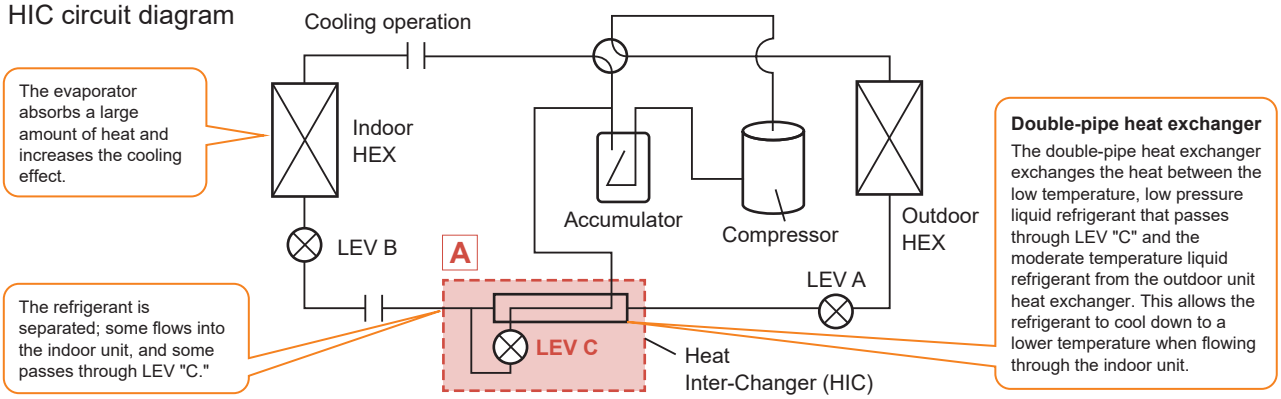
Heat Inter-Changer (HIC) circuit

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

HIC mechanism

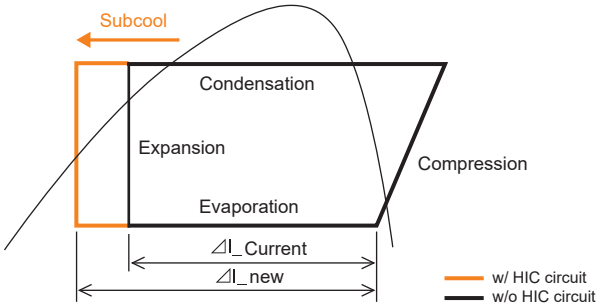
Some of the high pressure liquid refrigerant that passes through the outdoor unit heat exchanger flows directly into the indoor unit, and the rest passes through linear expansion valve (LEV) "C" to lower both the temperature and pressure. The heat is exchanged between the low temperature, low pressure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

• HIC circuit diagram



*This diagram shows 208-230 V model.

• HIC circuit effect (Image using a Mollier diagram)

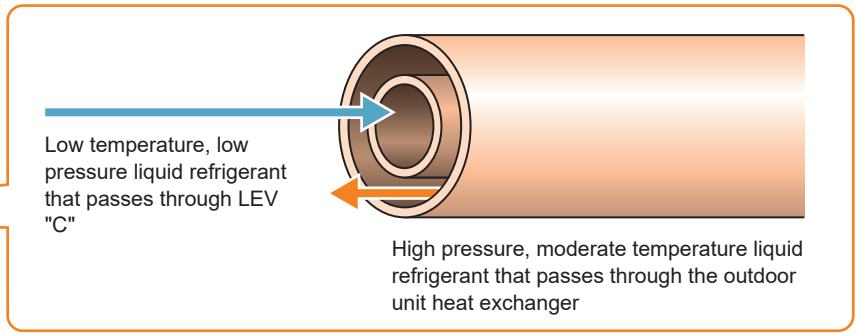


• HIC circuit
(Double-pipe heat exchanger)



Heat Inter-Changer (HIC) circuit

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



IH warmer

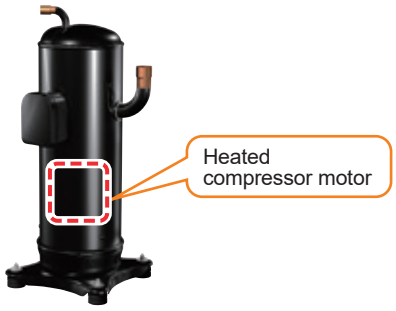
Induction heating (IH) is used to heat the refrigerant that flows back into the compressor*. This method differs from the conventional crankcase heater method (in which a belt heater is wrapped around the outside of the compressor) in that heat is not applied from the outside; the refrigerant is heated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

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

• Crankcase heater power supply method

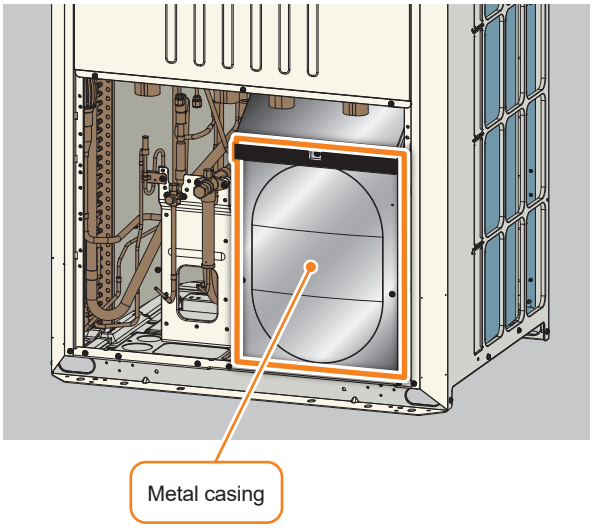


• IH power supply method
(without crankcase heater)



Metal compressor enclosure

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



Operation mode

COP priority mode

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

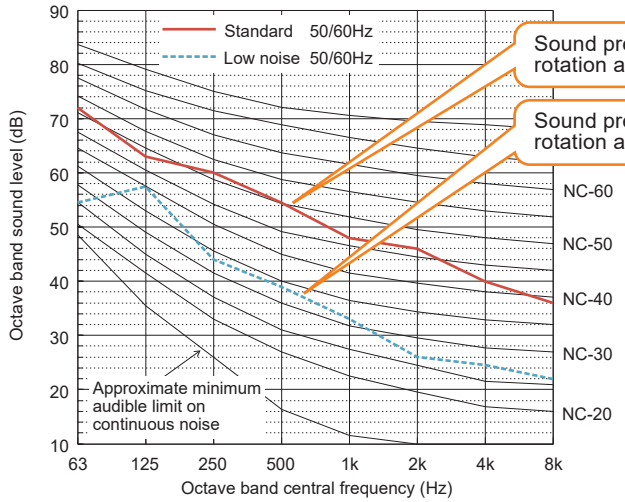
Low noise mode

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

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

• Examples of sound pressure level in low noise mode (PUHY-P200TKA(-BS) <cooling>)

Sound level of PUHY-P200TKA(-BS)



		Octave band central frequency (Hz)								dB(A)
		63	125	250	500	1k	2k	4k	8k	
Standard (dB)	50/60Hz	72.0	63.0	60.0	54.5	48.0	46.0	40.0	36.0	57.0
Low noise mode (dB)	50/60Hz	54.5	57.5	44.0	39.0	33.0	26.0	24.5	22.0	44.0

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

System changeover (for heat pumps)

Normal switching between cooling and heating

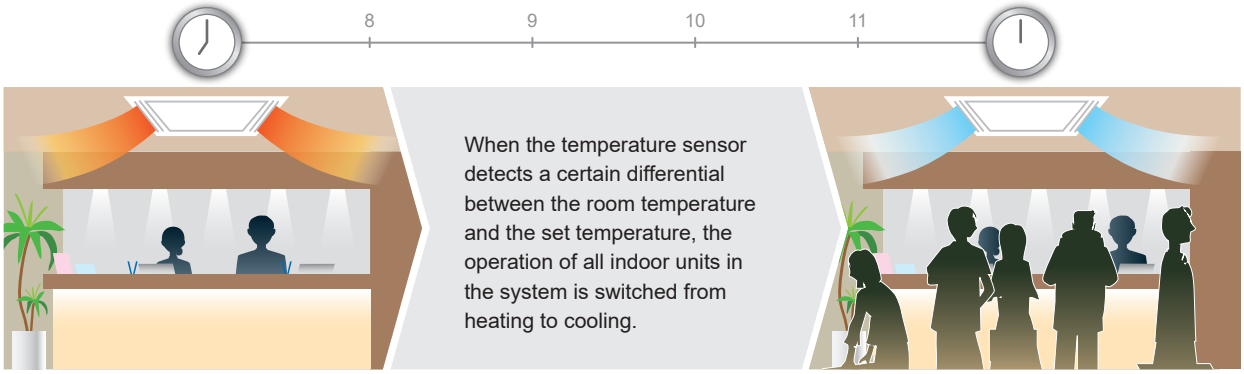
With CITY MULTI's switchable cooling/heating models, in order to switch from cooling to heating, the operation mode of all indoor units performing cooling operation needs to be switched manually.

Using system changeover to switch between cooling and heating

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

• Suitable situations

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



When using the AE-200A/AE-50A/EW-50A

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

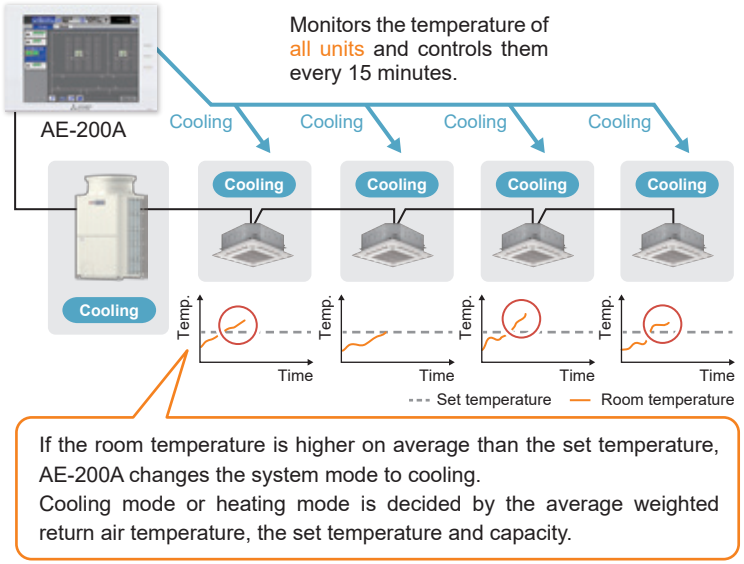
(1) Averaging

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

(2) Representative Group

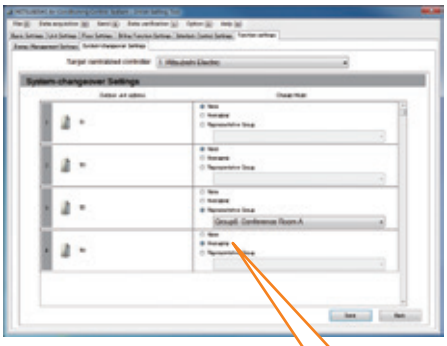
Operation mode (cooling or heating) is switched based on the temperature difference between the set temperature and the room temperature of the representative group.

• Image of the averaging method



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

• Settings for the AE-200A



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

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

Energy efficiency control

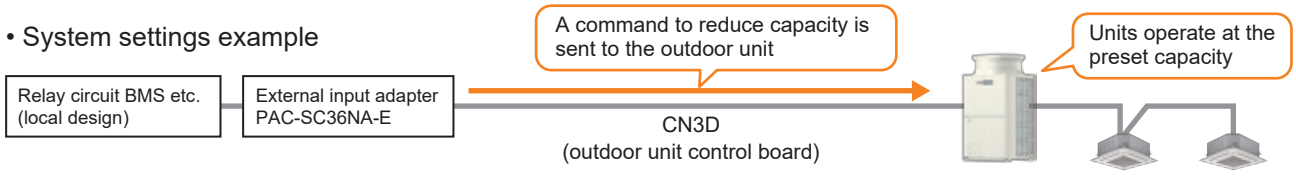
Demand control

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

Possible usage

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

• System settings example

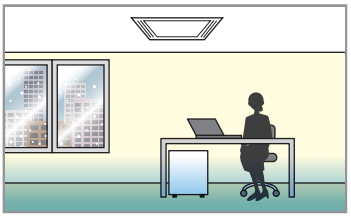


Continuous heating operation

Y-Series 380–415 V only

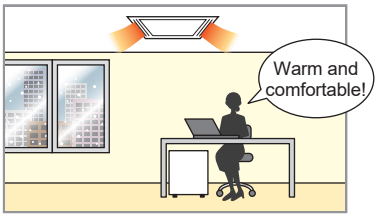
Normally, it is necessary to stop the heating operation during defrosting. However, the continuous heating operation method makes it possible to perform defrosting without stopping the heating operation.
Reducing the stoppage time of the heating operation suppresses drop in room temperature.
Use the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

Conventional defrosting operation



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

Continuous heating operation



You can enjoy a comfortable environment that is continuously heated.

Maintenance functions

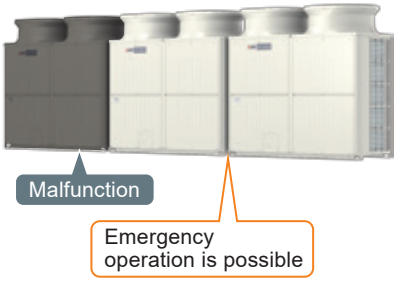
Rotation control

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



Emergency operation mode

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





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

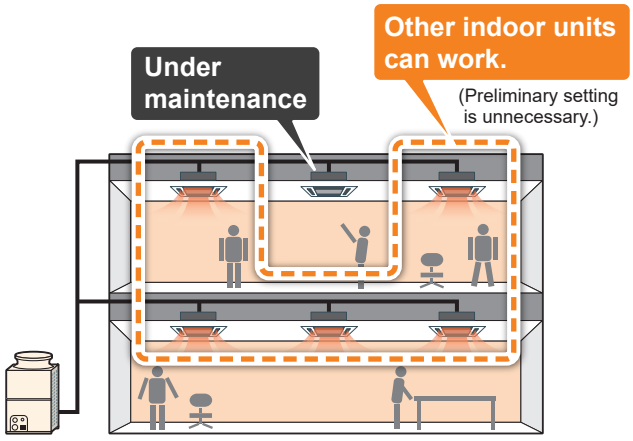
Pump down function

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

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

Individual LEV control

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

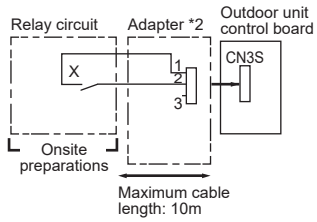


Snow sensor setting

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

• Snow sensor setting example

Snow sensor (CN3S)



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

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

Y-Series 208–230 V

PUHY-P TKA(-BS)



Model				PUHY-P200TKA (-BS)	PUHY-P250TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)
Power source				3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW		22.4	28.0	33.5	40.0
	*1	BTU / h		76,400	95,500	114,300	136,500
	Power input	kW		5.19	6.89	8.86	11.69
	Current input	A		16.0-15.1-14.4	21.2-20.0-19.2	27.3-25.8-24.7	36.0-34.0-32.6
	EER	kW / kW		4.31	4.06	3.78	3.42
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.		-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW		22.4	28.0	33.5	40.0
	*2	BTU / h		76,400	95,500	114,300	136,500
	Power input	kW		5.05	6.33	8.11	9.61
	Current input	A		15.5-14.7-14.0	19.5-18.4-17.6	25.0-23.6-22.6	29.6-28.0-26.8
	COP	kW / kW		4.43	4.42	4.13	4.16
Temp. range of heating	Indoor	D.B.		15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.		-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°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~P250/1~26	P15~P250/1~30
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^3/min	175	175	185	210
			L/s	2,917	2,917	3,083	3,500
			cfm	6,179	6,179	6,532	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
*3	External static press.			0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension 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 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
Net weight			kg (lbs)	193 (426)	193 (426)	209 (461)	244 (538)
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/LSG2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G

Notes:

*1,*2 Nominal conditions

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

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

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

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

Y-Series 208–230 V

PUHY-P TKA(-BS)



Model			PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P500TKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	48.0	55.0
	*1	BTU / h	153,500	163,800	187,700
	Power input	kW	13.55	15.78	18.39
	Current input	A	41.7-39.5-37.7	48.6-46.0-44.0	56.7-53.6-51.2
	EER	kW / kW	3.32	3.04	2.99
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	45.0	48.0	55.0
	*2	BTU / h	153,500	163,800	187,700
	Power input	kW	10.92	13.33	15.71
	Current input	A	33.6-31.8-30.4	41.1-38.8-37.1	48.4-45.8-43.8
	COP	kW / kW	4.12	3.60	3.50
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)		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^3/min	210	210	360
		L/s	3,500	3,500	6,000
		cfm	7,415	7,415	12,712
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	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 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension 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)	244 (538)	244 (538)	287 (633)
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

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P550TSKA (-BS)	PUHY-P600TSKA (-BS)	PUHY-P650TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	63.0	68.0	73.0
	*1	BTU / h	215,000	232,000	249,100
	Power input	kW	16.07	18.18	19.78
	Current input	A	49.5-46.8-44.8	56.0-53.0-50.7	61.0-57.6-55.1
	EER	kW / kW	3.92	3.74	3.69
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	63.0	68.0	73.0
	*2	BTU / h	215,000	232,000	249,100
	Power input	kW	15.51	16.70	18.02
	Current input	A	47.8-45.2-43.2	51.5-48.6-46.5	55.5-52.5-50.2
	COP	kW / kW	4.06	4.07	4.05
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~47	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	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			PUHY-P250TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P250TKA (-BS)	PUHY-P350TKA (-BS)	PUHY-P250TKA (-BS)	PUHY-P400TKA (-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^3/min	175	185	175	210	175	210
		L/s	2,917	3,083	2,917	3,500	2,917	3,500
		cfm	6,179	6,532	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension 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 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
Net weight		kg (lbs)	193 (426)	209 (461)	193 (426)	244 (538)	193 (426)	244 (538)
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-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).

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

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

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P700TSKA (-BS)	PUHY-P750TSKA (-BS)	PUHY-P800TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	76.0	81.5	90.0
	*1	BTU / h	259,300	278,100	307,100
	Power input	kW	21.40	23.90	27.10
	Current input	A	66.0-62.4-59.6	73.7-69.6-66.6	83.5-79.0-75.5
	EER	kW / kW	3.55	3.41	3.32
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	76.0	81.5	90.0
	*2	BTU / h	259,300	278,100	307,100
	Power input	kW	20.00	22.20	23.01
	Current input	A	61.6-58.3-55.7	68.4-64.7-61.9	70.9-67.0-64.1
	COP	kW / kW	3.80	3.67	3.91
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64.5	65.5	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			PUHY-P250TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-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^3/min	175	210	185	210	210	210
		L/s	2,917	3,500	3,083	3,500	3,500	3,500
		cfm	6,179	7,415	6,532	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	
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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	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 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension 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 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 8.0 kg (18 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)	193 (426)	244 (538)	209 (461)	244 (538)	244 (538)	244 (538)
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-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P850TSKA (-BS)	PUHY-P900TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	93.0	96.0
	*1	BTU / h	317,300	327,600
	Power input	kW	29.24	31.57
	Current input	A	90.1-85.2-81.5	97.3-92.0-88.0
	EER	kW / kW	3.18	3.04
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	93.0	96.0
	*2	BTU / h	317,300	327,600
	Power input	kW	25.40	28.07
	Current input	A	78.3-74.0-70.8	86.5-81.8-78.2
	COP	kW / kW	3.66	3.42
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66	66
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			PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-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^3/min	210	210	210	210
		L/s	3,500	3,500	3,500	3,500
		cfm	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.8	12.4	12.4	12.4
	Case heater	kW	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension 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
		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
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)
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)	244 (538)
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
	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
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

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

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

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

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P950TSKA (-BS)	PUHY-P1000TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	103.0	110.0
	*1	BTU / h	351,400	375,300
	Power input	kW	34.21	36.78
	Current input	A	105.5-99.7-95.4	113.4-107.2-102.5
	EER	kW / kW	3.01	2.99
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	103.0	110.0
	*2	BTU / h	351,400	375,300
	Power input	kW	30.56	33.13
	Current input	A	94.2-89.1-85.2	102.1-96.6-92.4
	COP	kW / kW	3.37	3.32
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
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			PUHY-P450TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	210	360	360	360
		L/s	3,500	6,000	6,000	6,000
		cfm	7,415	12,712	12,712	12,712
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	12.4	13.3	13.3	13.3
	Case heater	kW	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension 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
		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
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)
Net weight		kg (lbs)	244 (538)	287 (633)	287 (633)	287 (633)
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
	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
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P1050TSKA (-BS)	PUHY-P1100TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	115.0	121.5
	*1	BTU / h	392,400	414,600
	Power input	kW	32.57	35.63
	Current input	A	100.4-94.9-90.8	109.8-103.8-99.3
	EER	kW / kW	3.53	3.41
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	115.0	121.5
	*2	BTU / h	392,400	414,600
	Power input	kW	31.50	33.80
	Current input	A	97.1-91.8-87.8	104.2-98.5-94.2
	COP	kW / kW	3.65	3.59
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66.5	66.5
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			PUHY-P300TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)	PUHY-P450TKA (-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^3/min	185	185	210	185	210	210
		L/s	3,083	3,083	3,500	3,083	3,500	3,500
		cfm	6,532	6,532	7,415	6,532	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	8.1	8.1	12.4	8.1	10.4	12.4
	Case heater	kW	–	–	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension 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 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
Net weight		kg (lbs)	209 (461)	209 (461)	244 (538)	209 (461)	244 (538)	244 (538)
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	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) 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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P1150TSKA (-BS)	PUHY-P1200TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	130.0	135.0
	*1	BTU / h	443,600	460,600
	Power input	kW	38.80	40.66
	Current input	A	119.6-113.1-108.2	125.4-118.5-113.4
	EER	kW / kW	3.35	3.32
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	130.0	135.0
	*2	BTU / h	443,600	460,600
	Power input	kW	35.51	37.70
	Current input	A	109.5-103.5-99.0	116.2-109.9-105.1
	COP	kW / kW	3.66	3.58
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
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			PUHY-P350TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-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^3/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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 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)	244 (538)	244 (538)	244 (538)	244 (538)	244 (538)	244 (538)
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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 208–230 V

PUHY-P TSKA(-BS)



Model			PUHY-P1250TSKA (-BS)	PUHY-P1300TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	138.0	141.0
	*1	BTU / h	470,900	481,100
	Power input	kW	43.12	45.77
	Current input	A	132.9-125.7-120.2	141.1-133.4-127.6
	EER	kW / kW	3.20	3.08
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	138.0	141.0
	*2	BTU / h	470,900	481,100
	Power input	kW	40.35	42.98
	Current input	A	124.4-117.6-112.5	132.5-125.3-119.8
	COP	kW / kW	3.42	3.28
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
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			PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-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^3/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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 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)	244 (538)	244 (538)	244 (538)	244 (538)	244 (538)	244 (538)
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		

Notes:

*1,*2 Nominal conditions

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

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

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

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

Y-Series 208–230 V

PUHY-P TSKA(-BS)





Model			PUHY-P1350TSKA (-BS)	PUHY-P1400TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	144.0	151.0
	*1	BTU / h	491,300	515,200
	Power input	kW	48.64	52.24
	Current input	A	150.0-141.8-135.6	161.1-152.3-145.7
	EER	kW / kW	2.96	2.89
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	144.0	151.0
	*2	BTU / h	491,300	515,200
	Power input	kW	46.15	49.50
	Current input	A	142.3-134.5-128.7	152.6-144.3-138.0
	COP	kW / kW	3.12	3.05
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
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			PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P500TKA (-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	m^3/min	210	210	210	210	210	360
		L/s	3,500	3,500	3,500	3,500	3,500	6,000
		cfm	7,415	7,415	7,415	7,415	7,415	12,712
	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 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	12.4	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 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 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)		
	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)	244 (538)	244 (538)	244 (538)	244 (538)	244 (538)	287 (633)
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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 208–230 V

PUHY-P TSKA(-BS)





Model			PUHY-P1450TSKA (-BS)	PUHY-P1500TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	158.0	165.0
	*1	BTU / h	539,100	563,000
	Power input	kW	55.83	59.56
	Current input	A	172.1-162.7-155.7	183.6-173.6-166.1
	EER	kW / kW	2.83	2.77
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	158.0	165.0
	*2	BTU / h	539,100	563,000
	Power input	kW	52.49	56.12
	Current input	A	161.8-153.0-146.4	173.0-163.6-156.5
	COP	kW / kW	3.01	2.94
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
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			PUHY-P450TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	210	360	360	360	360	360
		L/s	3,500	6,000	6,000	6,000	6,000	6,000
		cfm	7,415	12,712	12,712	12,712	12,712	12,712
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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	13.3
	Case heater	kW	–	–	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension 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)	244 (538)	287 (633)	287 (633)	287 (633)	287 (633)	287 (633)
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		

Notes:

*1,*2 Nominal conditions

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

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

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

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

Y-Series 380-415 V

PUHY-P YKB-A1(-BS)



Model			PUHY-P200YKB-A1 (-BS)	PUHY-P250YKB-A1 (-BS)	PUHY-P300YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	22.4	28.0	33.5	40.0
	*1	BTU / h	76,400	95,500	114,300	136,500
	Power input	kW	5.19	6.88	8.56	11.69
	Current input	A	8.7-8.3-8.0	11.6-11.0-10.6	14.4-13.7-13.2	19.7-18.7-18.0
	EER	kW / kW	4.31	4.06	3.91	3.42
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	25.0	31.5	37.5	45.0
	*2	BTU / h	85,300	107,500	128,000	153,500
	Power input	kW	5.81	7.34	9.07	11.13
	Current input	A	9.8-9.3-8.9	12.3-11.7-11.3	15.3-14.5-14.0	18.7-17.8-17.2
	COP	kW / kW	4.30	4.29	4.13	4.04
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°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~P250/1~26	P15~P250/1~30
Sound pressure level (measured in anechoic room)		dB <A>	57	59	61	61
Sound power level (measured in anechoic room)		dB <A>	78	79	83	83
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^3/min	175	175	210	210
		L/s	2,917	2,917	3,500	3,500
		cfm	6,179	6,179	7,415	7,415
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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	10.5
	Case heater	kW	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		–	–	–	–
	Fan motor		–	–	–	–
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
Net weight		kg (lbs)	190 (419)	199 (439)	251 (554)	251 (554)
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

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 380-415 V

PUHY-P YKB-A1(-BS)



Model			PUHY-P400YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P500YKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	50.0	55.0
	*1	BTU / h	153,500	170,600	187,700
	Power input	kW	13.55	14.79	18.39
	Current input	A	22.8-21.7-20.9	24.9-23.7-22.8	31.0-29.4-28.4
	EER	kW / kW	3.32	3.38	2.99
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	50.0	56.0	63.0
	*2	BTU / h	170,600	191,100	215,000
	Power input	kW	12.50	15.55	18.52
	Current input	A	21.1-20.0-19.3	26.2-24.9-24.0	31.2-29.7-28.6
	COP	kW / kW	4.00	3.60	3.40
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)		dB <A>	63	66	66
Sound power level (measured in anechoic room)		dB <A>	83	85	86
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 2	Propeller fan x 2
	Air flow rate	m^3/min	210	360	360
		L/s	3,500	6,000	6,000
		cfm	7,415	12,712	12,712
	Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	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	–	0.045	0.045
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		–	–	–
	Fan motor		–	–	–
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
Net weight		kg (lbs)	251 (554)	304 (671)	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

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).

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

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

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P400YSKB-A1 (-BS)	PUHY-P450YSKB-A1 (-BS)	PUHY-P500YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	50.0	56.0
	*1	BTU / h	153,500	170,600	191,100
	Power input	kW	11.00	12.59	14.54
	Current input	A	18.5-17.6-17.0	21.2-20.1-19.4	24.5-23.3-22.4
	EER	kW / kW	4.09	3.97	3.85
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	50.0	56.0	63.0
	*2	BTU / h	170,600	191,100	215,000
	Power input	kW	12.24	13.72	15.46
	Current input	A	20.6-19.6-18.9	23.1-22.0-21.2	26.0-24.7-23.8
	COP	kW / kW	4.08	4.08	4.07
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room)		dB <A>	60	61.5	62
Sound power level (measured in anechoic room)		dB <A>	81	82	82
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			PUHY-P200YKB-A1 (-BS)	PUHY-P200YKB-A1 (-BS)	PUHY-P200YKB-A1 (-BS)	PUHY-P250YKB-A1 (-BS)	PUHY-P250YKB-A1 (-BS)	PUHY-P250YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175	175	175	175	175
		L/s	2,917	2,917	2,917	2,917	2,917	2,917
		cfm	6,179	6,179	6,179	6,179	6,179	6,179
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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	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 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
Net weight		kg (lbs)	190 (419)	190 (419)	190 (419)	199 (439)	199 (439)	199 (439)
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	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	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	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P550YSKB-A1 (-BS)	PUHY-P600YSKB-A1 (-BS)	PUHY-P650YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	63.0	69.0	73.0
	*1	BTU / h	215,000	235,400	249,100
	Power input	kW	16.66	19.43	20.97
	Current input	A	28.1-26.7-25.7	32.8-31.1-30.0	35.4-33.6-32.4
	EER	kW / kW	3.78	3.55	3.48
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	69.0	76.5	81.5
	*2	BTU / h	235,400	261,000	278,100
	Power input	kW	17.29	19.36	21.00
	Current input	A	29.1-27.7-26.7	32.6-31.0-29.9	35.4-33.6-32.4
	COP	kW / kW	3.99	3.95	3.88
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~47	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	63.5	63.5	64
Sound power level (measured in anechoic room)		dB <A>	84.5	84.5	86
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			PUHY-P250YKB-A1 (-BS)	PUHY-P300YKB-A1 (-BS)	PUHY-P250YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P300YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/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
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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	10.5	8.1	10.5
	Case heater	kW	–	–	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 8.0 kg (18 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)	199 (439)	251 (554)	199 (439)	251 (554)	251 (554)	251 (554)
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	12.7 (1/2) Brazed	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	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).

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

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

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P700YSKB-A1 (-BS)	PUHY-P750YSKB-A1 (-BS)	PUHY-P800YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	80.0	85.0	90.0
	*1	BTU / h	273,000	290,000	307,100
	Power input	kW	24.69	26.56	27.86
	Current input	A	41.6-39.5-38.1	44.8-42.5-41.0	47.0-44.6-43.0
	EER	kW / kW	3.24	3.20	3.23
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	88.0	95.0	100.0
	*2	BTU / h	300,300	324,100	341,200
	Power input	kW	22.97	24.93	27.62
	Current input	A	38.7-36.8-35.5	42.0-39.9-38.5	46.6-44.2-42.6
	COP	kW / kW	3.83	3.81	3.62
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64	65.5	67.5
Sound power level (measured in anechoic room)		dB <A>	86	86	87.5
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.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P350YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate	m^3/min	210	210	210	210	210	360
		L/s	3,500	3,500	3,500	3,500	3,500	6,000
		cfm	7,415	7,415	7,415	7,415	7,415	12,712
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
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	10.5	10.5	10.5	10.8	10.5	12.4
	Case heater	kW	–	–	–	–	–	0.045
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 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)	251 (554)	251 (554)	251 (554)	251 (554)	251 (554)	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.)	12.7 (1/2) 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
	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-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P850YSKB-A1 (-BS)	PUHY-P900YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0	101.0
	*1	BTU / h	327,600	344,600
	Power input	kW	30.18	31.46
	Current input	A	50.9-48.4-46.6	53.1-50.4-48.6
	EER	kW / kW	3.18	3.21
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	108.0	113.0
	*2	BTU / h	368,500	385,600
	Power input	kW	29.90	33.00
	Current input	A	50.4-47.9-46.2	55.7-52.9-51.0
	COP	kW / kW	3.61	3.42
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68	69
Sound power level (measured in anechoic room)		dB <A>	87.5	88
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			PUHY-P400YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	210	360	360	360
		L/s	3,500	6,000	6,000	6,000
		cfm	7,415	12,712	12,712	12,712
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.8	12.4	12.4	12.4
	Case heater	kW	–	0.045	0.045	0.045
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		–	–	–	–
	Fan motor		–	–	–	–
Refrigerant	Type x original charge		R410A x 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)
Net weight		kg (lbs)	251 (554)	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
	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
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).

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

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

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P950YSKB-A1 (-BS)	PUHY-P1000YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	108.0	113.0
	*1	BTU / h	368,500	385,600
	Power input	kW	30.25	32.10
	Current input	A	51.0-48.5-46.7	54.1-51.4-49.6
	EER	kW / kW	3.57	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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	119.5	127.0
	*2	BTU / h	407,700	433,300
	Power input	kW	30.40	32.70
	Current input	A	51.3-48.7-46.9	55.2-52.4-50.5
	COP	kW / kW	3.93	3.88
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66.5	66.5
Sound power level (measured in anechoic room)		dB <A>	87	88
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			PUHY-P250YKB-A1 (-BS)	PUHY-P300YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)	PUHY-P300YKB-A1 (-BS)	PUHY-P300YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	210	210	210	210	210
		L/s	2,917	3,500	3,500	3,500	3,500	3,500
		cfm	6,179	7,415	7,415	7,415	7,415	7,415
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	6.9	8.1	10.8	8.1	8.1	10.8
	Case heater	kW	–	–	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 8.0 kg (18 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)	199 (439)	251 (554)	251 (554)	251 (554)	251 (554)	251 (554)
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	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
	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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P1050YSKB-A1 (-BS)	PUHY-P1100YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	118.0	124.0
	*1	BTU / h	402,600	423,100
	Power input	kW	35.01	38.62
	Current input	A	59.1-56.1-54.1	65.1-61.9-59.6
	EER	kW / kW	3.37	3.21
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	132.0	140.0
	*2	BTU / h	450,400	477,700
	Power input	kW	34.25	36.60
	Current input	A	57.8-54.9-52.9	61.7-58.6-56.5
	COP	kW / kW	3.85	3.82
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66.5	66.5
Sound power level (measured in anechoic room)		dB <A>	88	88
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			PUHY-P300YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/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
	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
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	8.1	10.5	10.8	10.5	10.5	10.8
	Case heater	kW	–	–	–	–	–	–
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 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)	251 (554)	251 (554)	251 (554)	251 (554)	251 (554)	251 (554)
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	15.88 (5/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).

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

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

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P1150YSKB-A1 (-BS)	PUHY-P1200YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	130.0	136.0
	*1	BTU / h	443,600	464,000
	Power input	kW	40.24	44.10
	Current input	A	67.9-64.5-62.2	74.4-70.7-68.1
	EER	kW / kW	3.23	3.08
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	145.0	150.0
	*2	BTU / h	494,700	511,800
	Power input	kW	39.29	40.76
	Current input	A	66.3-63.0-60.7	68.8-65.3-63.0
	COP	kW / kW	3.69	3.68
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68.5	69
Sound power level (measured in anechoic room)		dB <A>	88.5	88.5
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			PUHY-P350YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P350YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 2	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate	m^3/min	210	210	360	210	210	360
		L/s	3,500	3,500	6,000	3,500	3,500	6,000
		cfm	7,415	7,415	12,712	7,415	7,415	12,712
	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 2	0.92 x 1	0.92 x 1	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.5	10.5	12.4	10.5	10.8	12.4
	Case heater	kW	–	–	0.045	–	–	0.045
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 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)	251 (554)	251 (554)	304 (671)	251 (554)	251 (554)	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.)	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	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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P1250YSKB-A1 (-BS)	PUHY-P1300YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	140.0	146.0
	*1	BTU / h	477,700	498,200
	Power input	kW	43.80	47.80
	Current input	A	73.9-70.2-67.7	80.6-76.6-73.8
	EER	kW / kW	3.19	3.05
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.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	156.5	163.0
	*2	BTU / h	534,000	556,200
	Power input	kW	44.08	46.04
	Current input	A	74.4-70.6-68.1	77.7-73.8-71.1
	COP	kW / kW	3.55	3.54
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	70	70
Sound power level (measured in anechoic room)		dB <A>	89.5	89.5
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			PUHY-P350YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P400YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 1	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	210	360	360	210	360	360
		L/s	3,500	6,000	6,000	3,500	6,000	6,000
		cfm	7,415	12,712	12,712	7,415	12,712	12,712
	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 1	0.92 x 2	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor		
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.5	12.4	12.4	10.8	12.4	12.4
	Case heater	kW	–	0.045	0.045	–	0.045	0.045
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection			Over-heat protection, Over-current protection		
	Compressor		–	–	–	–	–	–
	Fan motor		–	–	–	–	–	–
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
Net weight		kg (lbs)	251 (554)	304 (671)	304 (671)	251 (554)	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.)	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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).

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

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

Y-Series 380-415 V

PUHY-P YSKB-A1(-BS)



Model			PUHY-P1350YSKB-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	150.0
	*1	BTU / h	511,800
	Power input	kW	47.40
	Current input	A	80.0-76.0-73.2
	EER	kW / kW	3.16
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	168.0
	*2	BTU / h	573,200
	Power input	kW	49.12
	Current input	A	82.9-78.7-75.9
	COP	kW / kW	3.42
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model / Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	71
Sound power level (measured in anechoic room)		dB <A>	90
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)	PUHY-P450YKB-A1 (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	360	360	360
		L/s	6,000	6,000	6,000
		cfm	12,712	12,712	12,712
	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 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	12.4	12.4	12.4
	Case heater	kW	0.045	0.045	0.045
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		–	–	–
	Fan motor		–	–	–
Refrigerant	Type x original charge		R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
Net weight		kg (lbs)	304 (671)	304 (671)	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
	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		

Notes:

*1,*2 Nominal conditions

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

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH_2O, 6.1mmH_2O).
*Nominal condition *1,*2 are subject to JIS B8615-2.
*Due to continuing improvement, above specification may be subject to change without notice.

Optional parts

• For Y-Series 208-230 V

Description	Model	Remarks
Twinning Kit	CMY-Y100VBK3	For PUHY-P550~P650TSKA
	CMY-Y200VBK2	For PUHY-P700~P1000TSKA
	CMY-Y300VBK3	For PUHY-P1050~P1500TSKA
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201-400 (Total capacity of indoor unit)
	CMY-Y202S-G2	401-650 (Total capacity of indoor unit)
		The 1st branch of P450~P650
	CMY-Y302S-G2	651 or above (Total capacity of indoor unit)
		The 1st branch of P700~P1500
Branch pipe (Header)	CMY-Y104-G	For 4 branches
	CMY-Y108-G	For 8 branches
	CMY-Y1010-G	For 10 branches

• For Y-Series 380-415 V

Description	Model	Remarks
Twinning kit	CMY-Y100VBK3	For PUHY-P400~P650YSKB
	CMY-Y200VBK2	For PUHY-P700~P900YSKB
	CMY-Y300VBK3	For PUHY-P950~P1350YSKB
Branch pipe (Joint)	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201-400 (Total capacity of indoor unit)
	CMY-Y202S-G2	401-650 (Total capacity of indoor unit)
		The 1st branch of P400~P650YSKB
	CMY-Y302S-G2	651 or above (Total capacity of indoor unit)
		The 1st branch of P700~P1350YSKB
Branch pipe (Header)	CMY-Y104-G	For 4 branches
	CMY-Y108-G	For 8 branches
	CMY-Y1010-G	For 10 branches
Relay box	PAC-BH02KTY-E	Relay box should be used together with Base heater PAC-BH-EHT-E.
Base heater	PAC-BH04EHT-E	For S Module
	PAC-BH05EHT-E	For L Module
	PAC-BH06EHT-E	For XL Module

S-Series

Cooling or Heating Heat pump

- Features ····· P.42 - 44
- Optional parts ····· P.44
- Specifications **PUMY-SP VKM(-BS)** ····· P.45



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

The CITY MULTI S-Series (for small applications) makes use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilizes R410A refrigerant and an inverter-driven compressor for effective energy use.
With a wide lineup of indoor units connected to a flexible piping system, the CITY MULTI Series can be configured to suit diverse applications. Thanks to the individual operation of up to 12 units* and a group change function, the CITY MULTI S-Series can flexibly accommodate layout changes in stores and offices.

• Small offices

*For P140 model

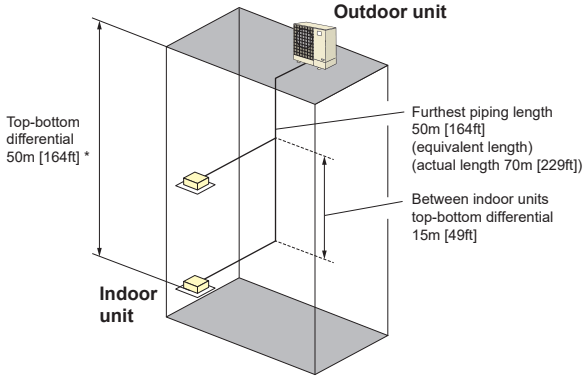


• System Pipe Lengths [SP112~140(VKM)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length	120 [393]
Maximum allowable length	70 (90 equivalent) [229 (295)]
Farthest indoor from first branch	50 [164]

Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	30 [98]
Indoor/indoor	15 [49]

*When the outdoor unit is installed below the indoor unit, top-bottom differential is 30m [98ft].

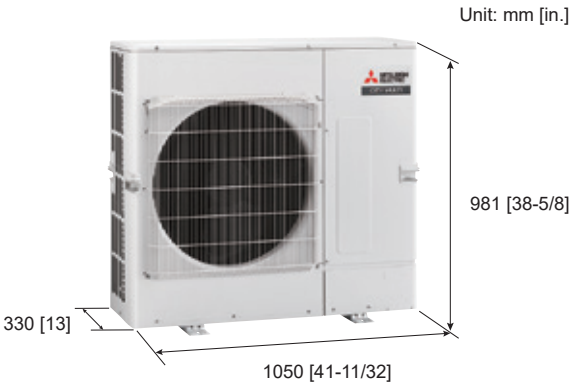


VKM-Series

Lineup of the VKM-Series

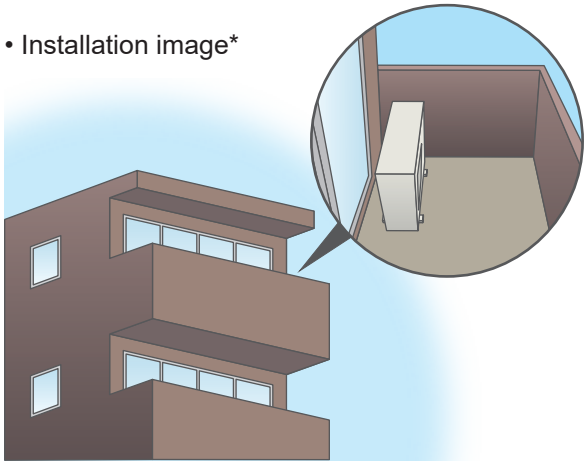
A new compact single-fan unit is now available to better suit individual installation conditions.

PUMY-SP112, 125, 140VKM (-BS)



The compact type with 981 mm [38-5/8] high is easy to stay hidden behind balcony walls.

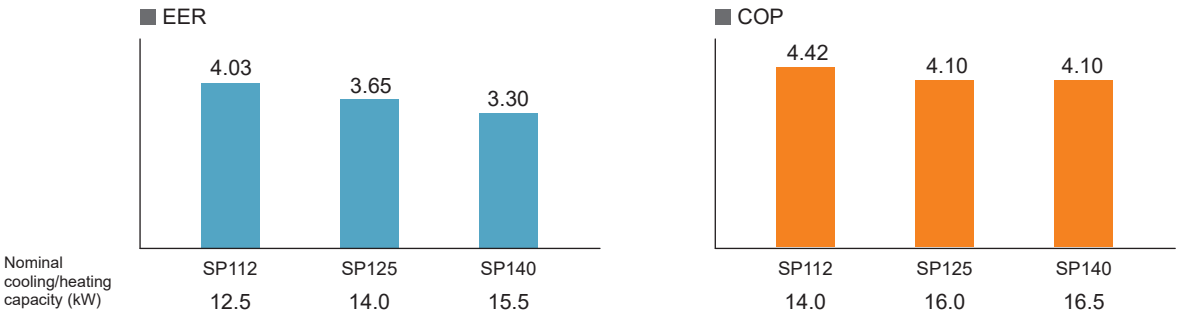
• Installation image*



*Refer to the installation manual for installation restrictions and requirements.

Highly energy efficient

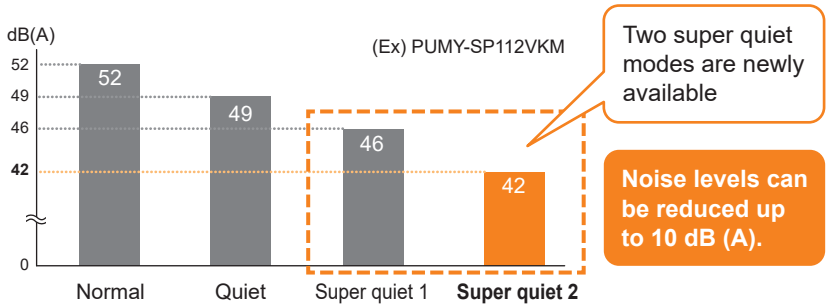
Even with its compact size and light weight, the PUMY-Series has high EER and COP.



Flexible noise setting

The PUMY-Series has two super quiet modes in addition to the general quiet mode, so a suitable noise level can be selected. The pattern can be selected according to customer needs for low-noise operation.

* Capacity reduction differs according to the mode setting.
* PAC-SC36NA-E is required to activate quiet or super quiet mode.

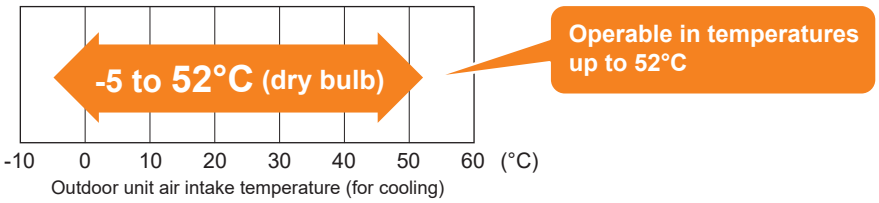


Wide operation range

The PUMY-Series has an expanded guaranteed cooling operation range of up to **52°C**, so it can be used reliably even if the outdoor air temperature rises abnormally during the hot summer daytime.

- A new inverter technology allows units to operate at outdoor air temperatures as high as 52°C.
- Performs well even in narrow spaces and in multiple installations where heated air may stagnate.

• Cooling operation temperature range

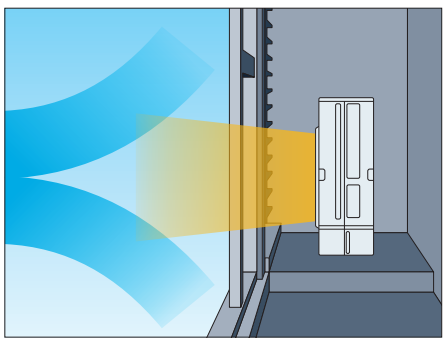


* Depending on the types of indoor units used, the operable temperature range may be between 10°C and 52°C. Refer to the DATA BOOK for details.
* Using of the Air Protect Guide [PAC-SH95AG-E] (optional part) increases the operable temperature range to between -15°C and +52°C. Refer to the DATA BOOK for details.

External static pressure of 30 Pa

An external static pressure of 30 Pa allows flexible installation.
The outdoor unit can be installed in locations that were not possible before.

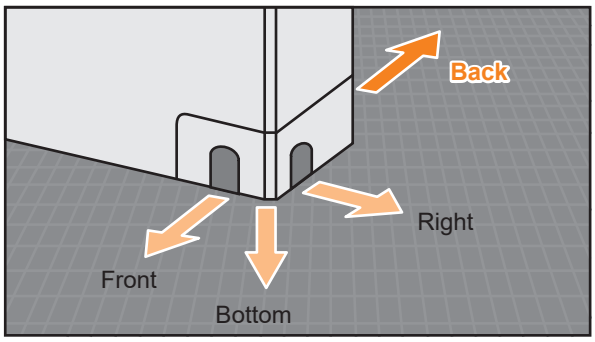
It can be installed on balconies in high-rise buildings or spaces near louvers.
*Noise level will increase when using this function.



Rear piping is possible

• Flexible with layout owing to piping pullout locations in four directions

The indoor unit allows piping from any of four directions: front, back, bottom, or right. This enables easier horizontal connection for collective layouts.
The outdoor unit also allows expanded piping layout flexibility to greatly improve piping workability.



Optional parts

• For the PUMY-SP VKM

Description	Model
Branch (2 branches)	CMY-Y62-G-E
Header	CMY-Y64-G-E
	CMY-Y68-G-E
Air protect guide	PAC-SH95AG-E
Drain socket	PAC-SG61DS-E
Air outlet guide	PAC-SH96SG-E
Drain pan	PAC-SH97DP-E
Base heater	PAC-SJ10BH-E
Connection kit	PAC-LV11M-J

S-Series

PUMY-SP VKM(-BS)



Model			PUMY-SP112VKM (-BS)	PUMY-SP125VKM (-BS)	PUMY-SP140VKM (-BS)
Power source			1-phase 220-230-240V 50Hz, 220V 60Hz	1-phase 220-230-240V 50Hz, 220V 60Hz	1-phase 220-230-240V 50Hz, 220V 60Hz
Cooling capacity (Nominal)	*1	kW	12.5	14.0	15.5
	*1	BTU / h	42,650	47,768	52,886
	Power input	kW	3.10	3.84	4.70
	Current input	A	14.38-13.75-13.18, 14.38	17.81-17.04-16.33, 17.81	21.80-20.85-19.98, 21.80
	EER	kW / kW	4.03	3.65	3.30
Temp. range of cooling	Indoor temp.	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 temp.*3,*4	D.B.	-5.0~52.0°C(23~126°F)	-5.0~52.0°C(23~126°F)	-5.0~52.0°C(23~126°F)
Heating capacity (Nominal)	*2	kW	14.0	16.0	16.5
	*2	BTU / h	47,768	54,592	56,298
	Power input	kW	3.17	3.90	4.02
	Current input	A	14.70-14.06-13.48, 14.70	18.09-17.30-16.58, 18.09	18.65-17.83-17.09, 18.65
	COP	kW / kW	4.42	4.10	4.10
Temp. range of heating	Indoor temp.	D.B.	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)
	Outdoor temp.	W.B.	-20.0~15.0°C(-4~59°F)	-20.0~15.0°C(-4~59°F)	-20.0~15.0°C(-4~59°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		P10-P140/9	P10-P140/10	P10-P140/12
Sound pressure level (measured in anechoic room)	*5	dB <A>	52/54	53/56	54/56
Sound power level (measured in anechoic room)	*5	dB <A>	72/74	73/76	74/76
Refrigerant piping diameter	Liquid pipe	mm (in.)	9.52(3/8)	9.52(3/8)	9.52(3/8)
	Gas pipe	mm (in.)	15.88(5/8)	15.88(5/8)	15.88(5/8)
FAN	Type x Quantity		Propeller Fan x 1	Propeller Fan x 1	Propeller Fan x 1
	Air flow rate	m^3/min	77	83	83
		L/s	1,283	1,383	1,383
		cfm	2,719	2,931	2,931
	Motor output	kW	0.20 x 1	0.20 x 1	0.20 x 1
*6	External static press.		0	0	0
Compressor	Type x Quantity		Twin rotary hermetic compressor x 1	Twin rotary hermetic compressor x 1	Twin rotary hermetic compressor x 1
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	3.1	3.5	3.7
External finish			Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1	Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1	Galvanized Steel Sheet Munsell No. 3Y 7.8/1.1
External dimension HxWxD		mm	981 x 1,050 x 330 (+40)	981 x 1,050 x 330 (+40)	981 x 1,050 x 330 (+40)
		in.	38-5/8 x 41-3/8 x 13 (+1-37/64)	38-5/8 x 41-3/8 x 13 (+1-37/64)	38-5/8 x 41-3/8 x 13 (+1-37/64)
Protection devices	High pressure protection		High pressure Switch	High pressure Switch	High pressure Switch
	Inverter circuit (COMP./FAN)		Overcurrent detection, Overheat detection (Heat sink thermistor)	Overcurrent detection, Overheat detection (Heat sink thermistor)	Overcurrent detection, Overheat detection (Heat sink thermistor)
	Compressor		Compressor thermistor, Overcurrent detection	Compressor thermistor, Overcurrent detection	Compressor thermistor, Overcurrent detection
	Fan motor		Overheating, Voltage protection	Overheating, Voltage protection	Overheating, Voltage protection
Refrigerant	Type x original charge		R410A 3.5kg	R410A 3.5kg	R410A 3.5kg
Net weight		kg (lbs)	93(205) *7	93(205) *7	93(205) *7
Heat exchanger			Cross Fin and Copper tube	Cross Fin and Copper tube	Cross Fin and Copper tube
HIC circuit (HIC: Heat Inter-Changer)			HIC circuit	HIC circuit	HIC circuit
Defrosting method			Reversed refrigerant circuit	Reversed refrigerant circuit	Reversed refrigerant circuit
Optional parts			Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E Air protect guide: PAC-SH95AG-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E Air protect guide: PAC-SH95AG-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E Air protect guide: PAC-SH95AG-E

Notes:

*1,*2 Nominal conditions

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

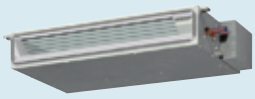
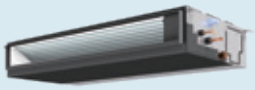
*3 10 to 52:, when connecting following models: PKFY-P10/15/20/25/32VLM, M-Series and S-Series type indoor unit with branch box, M-Series type indoor unit with connection kit.
*4 -15 to 52:, when using an optional air protect guide [PAC-SH95AG-E]. However, this condition does not apply to the indoor unit listed in*3.
*5 Cooling mode/Heating mode
*6 External static pressure option is available (30 Pa/3.1 mmH_2O).
*7 94 (207), for PUMY-SP112/125/140VKM-BS.
*Nominal condition *1,*2 are subject to ISO 15042.
*Due to continuing improvement, above specification may be subject to change without notice.

Indoor Units



Selection of Indoor Units

Type		Ceiling cassette type			
Model		PLFY-P VEM-PA 4-way airflow type	PLFY-P VFM-E1 4-way airflow type	PLFY-P VLMD-E 2-way airflow type	PMFY-P VBM-E 1-way airflow type
					
Line Up	P20		●	●	●
	P25		●	●	●
	P32	●	●	●	●
	P40	●	●	●	●
	P50	●		●	
	P63	●		●	
	P80	●		●	
	P100	●		●	
	P125	●		●	
Reference page		P.51	P.56	P.59	P.62

Type		Ceiling concealed type			
Model		PEFY-P VMS1-E Low static pressure type	PEFY-P VMA-E1, PEFY-P VMA3-E Medium static pressure type *This image shows the PEFY-P VMA-E1 model.		PEFY-P VMH-E High static pressure type
					
			VMA-E1	VMA3-E	
Line Up	P20	●	●	●	
	P25	●	●	●	
	P32	●	●	●	
	P40	●	●	●	●
	P50	●	●		●
	P63	●	●		●
	P71		●		●
	P80		●		●
	P100		●		●
	P125		●		●
	P140		●		●
	P200				●
	P250				●
Reference page		P.66	P.68		P.71

Type		Ceiling suspended type	Wall-mounted type	
Model		PCFY-P VKM-E	PKFY-P VLM-E	PKFY-P VKM-E
				
Line Up	P10		●	
	P15		●	
	P20		●	
	P25		●	
	P32		●	
	P40	●	●	
	P50		●	
	P63	●		●
	P100	●		●
	P125	●		
Reference page		P.75	P.78	P.78



Ceiling cassette type





4-way airflow type

PLFY-P VEM-PA



P.51

- The airflow pattern can be selected from 2, 3, or 4 directions
- With the 3D i-see Sensor, “felt temperature* control” is available, contributing to improve comfort/energy efficiency
- With automatic elevation panel, cleaning the filter is easy, even with high ceilings

*i.e., the temperature felt by people in the room

3D i-see Sensor | Decoration Panel | Drain Pump | Air Flow Rate 4 types | Fresh air intake usable

4-way airflow type

PLFY-P VFM-E1



P.56

- 625 mm [24 in.] compact design. Fits perfectly with 2-inch by 2-inch ceiling systems
- With 3D i-see Sensor, smart control based on the number of people in the room is available, contributing to improve comfort/energy efficiency

3D i-see Sensor | Decoration Panel | Drain Pump | Air Flow Rate 3 types | Fresh air intake usable

2-way airflow type

PLFY-P VLMD-E



P.59

- Stylish design with well blended air inlet
- The unit has a height of 290 mm [11-7/16 in.] and can be used in a corridor or narrow room

Decoration Panel | Drain Pump | Air Flow Rate 3 types | Fresh air intake usable

1-way airflow type

PMFY-P VBM-E



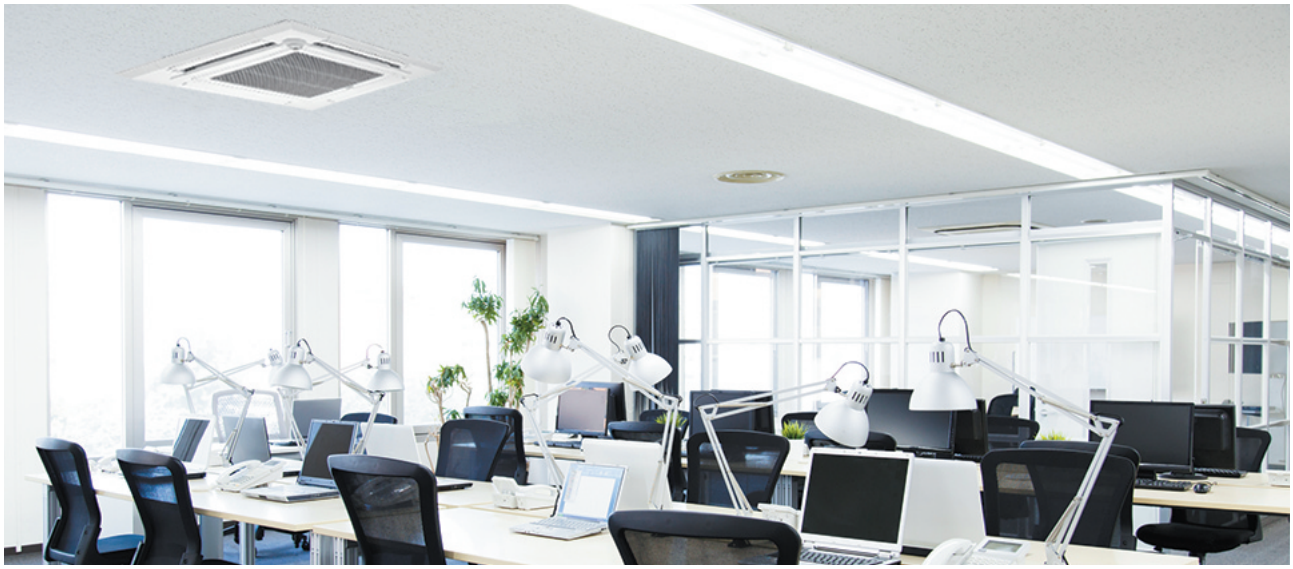
P.62

- The 1-way air flow type that is recommended to install on the edges of a room
- Thin design with a height of 230 mm [9-1/16 in.]

Decoration Panel | Drain Pump | Air Flow Rate 4 types | Fresh air intake usable



Ceiling cassette type
4-way airflow type





Ceiling cassette type

4-way airflow type

PLFY-P VEM-PA



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

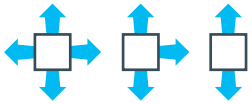
Optimum airflow

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

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

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

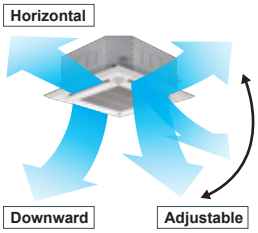
* Optional shuffle placement is required for 2- and 3-way patterns.



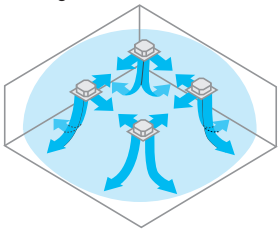
Individual vane angle settings

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

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



Multi-directional air conditioning



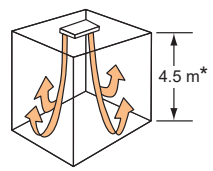
2-, 3-, 4-way airflow pattern selection

individual vane angle settings

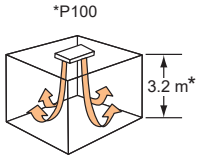
Combinations with individual vane settings enable an optimal outlet setting for each room layout to ensure even temperature distribution throughout each room. The result is uniformly comfortable air conditioning.

Equipped with high- and low-ceiling modes

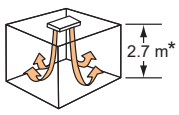
Units are equipped with high- and low-ceiling operation modes that make it possible to switch the airflow volume to match the height of the room. Being able to choose the optimum airflow volume helps optimize the breezy sensation felt throughout the room.



4-way airflow with high-ceiling setting



4-way airflow with standard setting



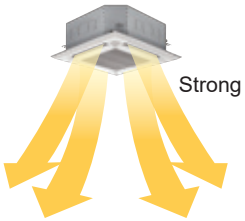
4-way airflow with low-ceiling setting

Airflow range

Model / Airflow pattern	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 automatically adjusts airflow speed to maintain comfortable room conditions at all times. This setting automatically adjusts the air speed to conditions that match the room environment.



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

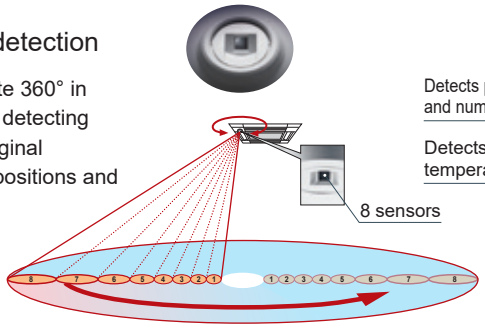


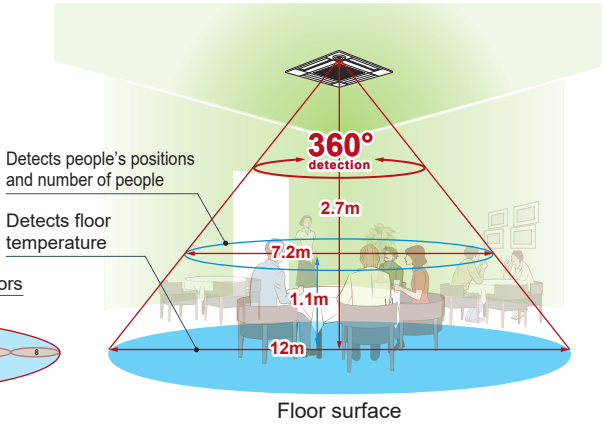
When the room temperature reaches the desired setting, the airflow speed is automatically decreased for stable and comfortable heating/cooling operation.

3D i-see Sensor

• Highly accurate people detection

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





*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 to save air-conditioning power. Air-conditioning power equivalent to 1°C is saved during both cooling and heating operations at an occupancy rate of approximately 30%. The temperature is controlled according to the number of people.

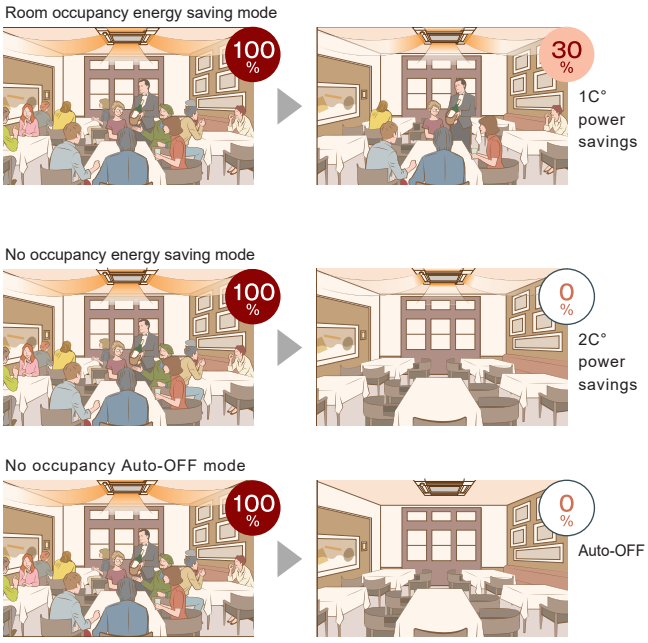
No occupancy energy saving mode

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

No occupancy Auto-OFF mode

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

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

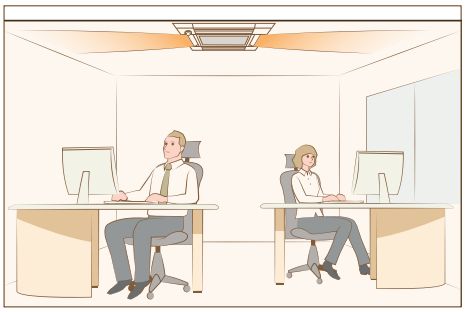


*PAR-40MAAU is required for each setting.

• Detects people's positions

Direct/indirect settings*

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

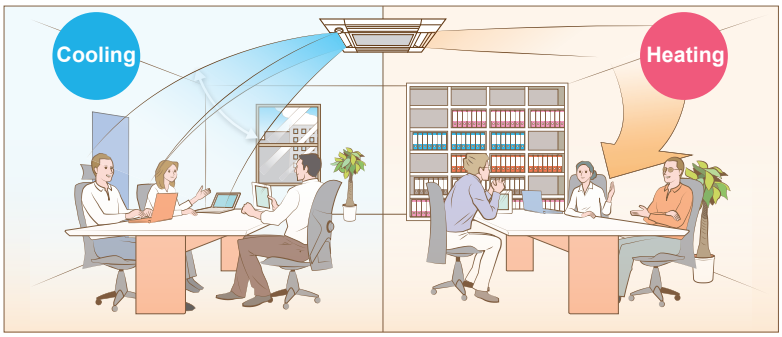


*PAR-40MAAU or PAR-SL100A-E is required for each setting.

Seasonal airflow*

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

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



*PAR-40MAAU 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 improves work efficiency during panel installation.




No need to remove screws

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

• Corner panel

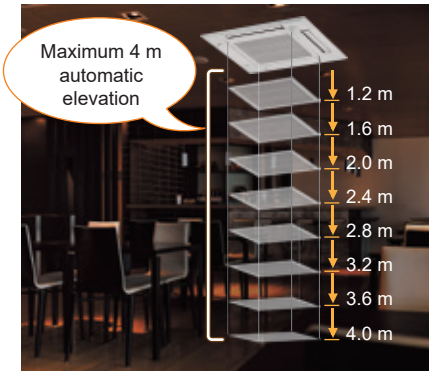


• Control box cover



Easy cleaning

The automatic elevation panel makes cleaning the filter easy, even with high ceilings.



Electrical box wiring

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

• Conventional model (PLFY-P VBM-E)



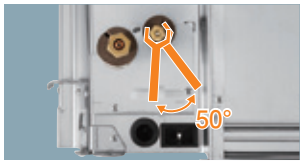
• PLFY-P VEM-PA



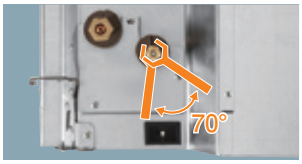
Increased space for plumbing work

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 for the spanner has been increased, thus improving liquid piping work and enabling it to be completed smoothly.

• Conventional Model (PLFY-P VBM-E)



• PLFY-P VEM-PA



Ceiling cassette type

4-way airflow type PLFY-P VEM-PA

				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 HxWxD		Unit	mm	258 x 840 x 840					298 x 840 x 840	
		Panel	mm	40 x 950 x 950						
Net weight		Unit	kg	19			21		24	
		Panel	kg	5						
Heat exchanger				Micro slit fin (Aluminum fin and copper tube)						
Fan	Type x Quantity			Turbo fan x 1						
	Airflow rate (Low-Mid2-Mid1-High)		m^3/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°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

*2 Nominal heating conditions
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

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



Ceiling cassette type
4-way airflow type





Ceiling cassette type

4-way airflow type

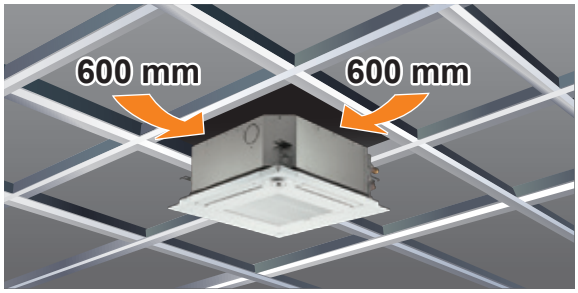
PLFY-P VFM-E1



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

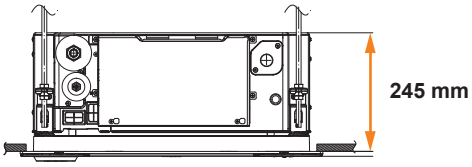
Beautiful square design

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



Above-ceiling height of 245 mm

The above-ceiling height of 245 mm is top class in the industry* and fits into narrow ceiling spaces.



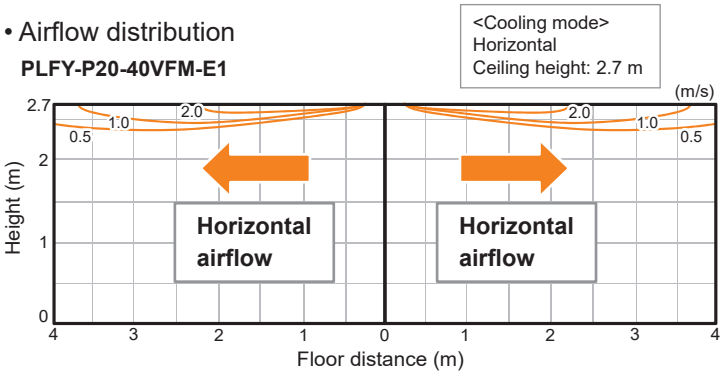
* As of Aug 2015, among compact 4-way cassettes for system ceilings. (In-company survey)

Horizontal airflow

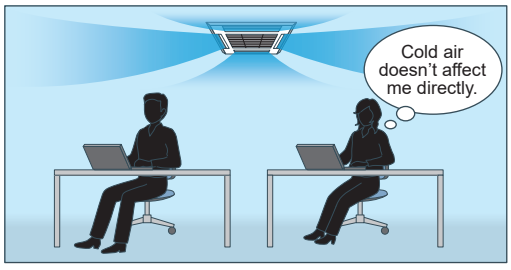
Supply air is horizontally fed into the room to reduce the cold draft feeling. This airflow is ideal for offices and restaurants.

• Airflow distribution

PLFY-P20-40VFM-E1



• Horizontal airflow

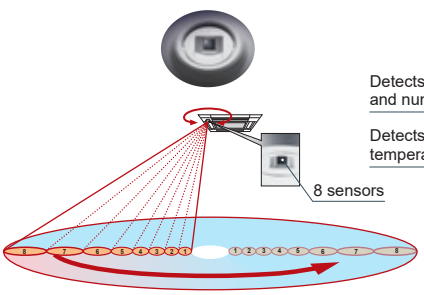


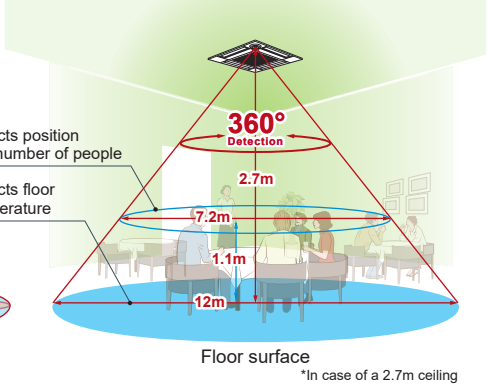
3D i-see Sensor

• Highly accurate people detection

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

* For the details, please refer to P.52.





*In case of a 2.7m ceiling

Ceiling cassette type

4-way airflow type PLFY-P VFM-E1

				PLFY-P20VFM-E1	PLFY-P25VFM-E1	PLFY-P32VFM-E1	PLFY-P40VFM-E1
Power source				1-phase 220-240V 50Hz / 220V 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	0.02	0.02	0.02	0.03
	Heating		kW	0.02	0.02	0.02	0.03
Current	Cooling		A	0.21	0.22	0.23	0.28
	Heating		A	0.16	0.17	0.18	0.23
External finish	Unit			Galvanized steel sheet			
(Munsell No.)	Panel			MUNSELL (1.0Y 9.2/0.2)			
Dimension H x W x D	Unit		mm(in.)	208 x 570 x 570 (8-1/4 x 22-1/2 x 22-1/2)			
	Panel		mm(in.)	10 x 625 x 625 (3/8 x 24-5/8 x 24-5/8)			
Net weight	Unit		kg(lbs.)	14 (31)		15 (33)	
	Panel		kg(lbs.)	3 (7)			
Heat exchanger				Cross fin (Aluminum fin and copper tube)			
FAN	Type x Quantity			Turbo fan x 1			
	Airflow rate (Lo-Mid-Hi)		m^3/min	6.5-7.5-8.5	6.5-8.0-9.0	7.0-8.0-9.5	7.5-9.0-11.0
			L/s	108-125-142	108-133-150	117-133-158	125-150-183
			cfm	230-265-300	230-282-318	247-282-335	265-318-388
	External static press.		Pa	0			
Motor	Type			DC motor			
	Output		kW	0.05			
Air filter				PP Honeycomb fabric (long life type)			
Refrigerant pipe diameter	Gas (Flare)		mm(in.)	ø12.7 (ø1/2)			
	Liquid (Flare)		mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter			mm(in.)	O.D. 32 (1-1/4) (PVC pipe VP-25 connectable)			
Sound pressure level (Lo-Mid-Hi)		*2	dB<A>	26-29-31	26-30-33	26-30-34	28-33-39

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 It is measured in anechoic room at power source 230V.

Optional parts

Description	Model	Applicable models
i-see Sensor corner panel	PAC-SF1ME-E	P20, P25, P32, P40
Wireless signal receiver	PAR-SF9FA-E	P20, P25, P32, P40

Panel & Corner panel

		With signal Receiver	With 3D i-see Sensor	With New Wireless Remote Controller
Panel	SLP-2FA			
	SLP-2FAL	●		
	SLP-2FAE		●	
	SLP-2FALE	●	●	
	SLP-2FALM	●		●
	SLP-2FALME	●	●	●
Corner panel	PAR-SF9FA-E	●		
	PAC-SF1ME-E		●	



Ceiling cassette type
2-way airflow type





Ceiling cassette type

2-way airflow type

PLFY-P VLMD-E



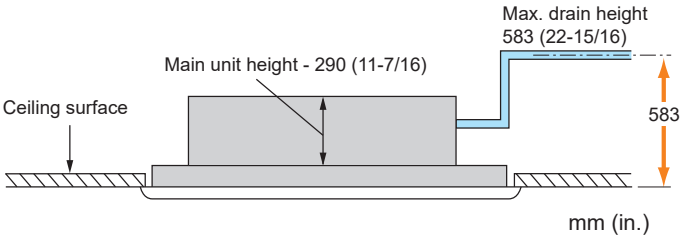
Slim body (depth 634 mm) for up to P100. Recommended for corridors or long and narrow rooms.

Simple panel design

The in-take port is not a grille but made in a stylish design. It can be installed visually attractively in harmony with the ceiling and lightings.

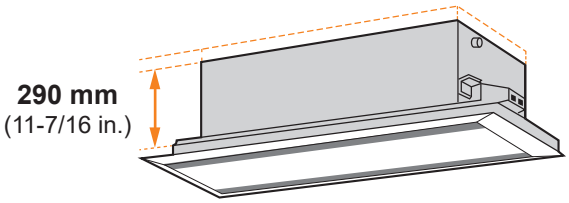
Drain pump as a standard feature

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



Slim body - only 290 mm (11-7/16 in.) high

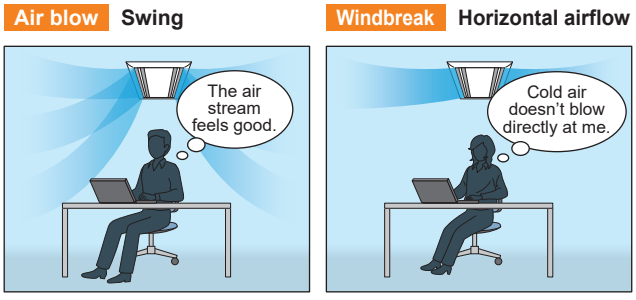
The slimline body is highly suited for installation in narrow ceiling spaces and for replacing obsolete air-conditioning equipment in older buildings. The height of the main unit is only 290 mm (11-7/16 in.).



Vane control

Vane angle can be selected from 7 types, including "Horizontal fix" and "Swing," to set the air blow according to preference.

*Airflow direction cannot be changed individually.



Ceiling cassette type
2-way airflow type PLFY-P VLMD-E

				PLFY-P20VLMD-E	PLFY-P25VLMD-E	PLFY-P32VLMD-E	PLFY-P40VLMD-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		Unit		Galvanized steel plate			
(Munsell No.)		Panel		Pure white (6.4Y 8.9/0.4)			
Dimension		Unit	mm(in.)	290 x 776 x 634 (11-7/16 x 30-9/16 x 25)			
H x W x D		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 *2 (Lo-Mid-Hi)		m^3/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 press.		Pa	0			
Motor	Type			1-phase induction motor			
	Output		kW	0.015 (at 240V)			
Air filter				PP honeycomb fabric (long life type)			
Refrigerant		Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
pipe diameter		Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter			mm(in.)	O.D.32 (1-1/4)			
Sound pressure level		220V,240V	dB<A>	27-30-33			29-33-36
(Lo-Mid-Hi) *2 *3		230V	dB<A>	28-31-34			30-34-37

				PLFY-P50VLMD-E	PLFY-P63VLMD-E	PLFY-P80VLMD-E	PLFY-P100VLMD-E	PLFY-P125VLMD-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		Unit		Galvanized steel plate				
(Munsell No.)		Panel		Pure white (6.4Y 8.9/0.4)				
Dimension		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 606 (11-7/16 x 67-1/4 x 23-7/8)
H x W x D		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 *2		m^3/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
	(P50~P100:Lo-Mid-Hi)		L/s	150-183-208	167-217-258	258-308-367	292-350-417	400-450-500-550
	(P125:Lo-Mid2-Mid1-Hi)		cfm	318-388-441	353-459-547	547-653-777	618-742-883	848-953-1,059-1,165
	External static press.		Pa	0				
Motor	Type			1-phase induction motor				
	Output		kW	0.020 (at 240V)		0.020 x 2 (at 240V)	0.030 x 2 (at 240V)	0.078 x 2 (at 240V)
Air filter				PP honeycomb fabric (long life type)				Synthetic fiber unwoven cloth filter (long life)
Refrigerant		Gas(Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)			
pipe diameter		Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)			
Field drain pipe diameter			mm(in.)	O.D.32 (1-1/4)				
Sound pressure level		220V,240V	dB<A>	31-34-37	32-37-39	33-36-39	36-39-42	40-42-44-46 (Lo-Mid2-Mid1-Hi)
(Lo-Mid-Hi) *2 *3		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.

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



Ceiling cassette type
1-way airflow type





Ceiling cassette type

1-way airflow type

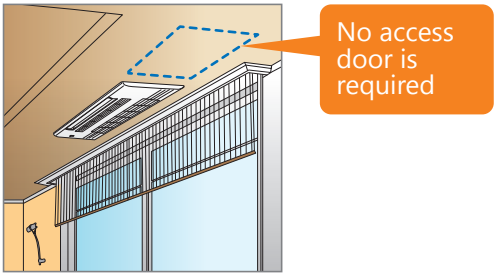
PMFY-P VBM-E



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

Ceiling mounted installation

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

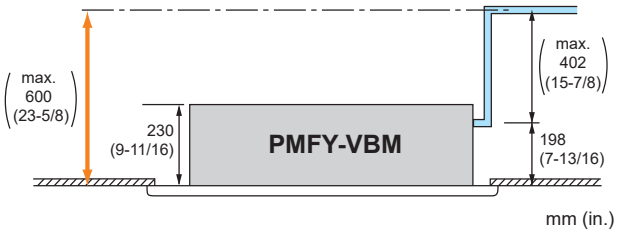


Compact size for smooth installation and maintenance

The body size of the unit has been standardized for all models at 812 mm for easy 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 surface.



mm (in.)

Ceiling cassette type

1-way airflow type PMFY-P VBM-E

			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
	*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	0.042	0.044		0.054
	Heating	kW	0.042	0.044		0.054
Current	Cooling	A	0.20	0.21		0.26
	Heating	A	0.20	0.21		0.26
External finish (Munsell No.)			White (0.98Y 8.99/0.63)			
Dimension H x W x D	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		Line flow fan x 1			
	Airflow rate *2 (Lo-Mid2-Mid1-Hi)	m^3/min	6.5-7.2-8.0-8.7	7.3-8.0-8.6-9.3		7.7-8.7-9.7-10.7
		L/s	108-120-133-145	122-133-143-155		128-145-162-178
		cfm	230-254-283-307	258-283-304-328		272-307-343-378
	External static press.	Pa	0			
Motor	Type		1-phase induction motor			
	Output	kW	0.028			
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.)	O.D. 26 (1)			
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.

Optional parts

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



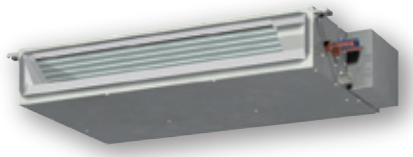
Ceiling concealed type





Low static pressure type

PEFY-P VMS1-E



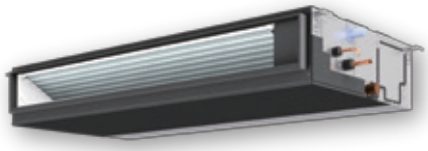
P.66

- Thin design with a body height of 200 mm (all HP models) enables installation in a ceiling with small cavity space.
- Realizes low noise operation.
- Demonstrates a maximum external static pressure of 50 Pa despite its compact design.
- Drain pump is equipped as a standard feature.

Static pressure Maximum 50 Pa	**Low noise**	**Height 200 mm**
Drain pump (standard) Maximum lifting height 550 mm		**Air flow rate 3 levels**

Medium static pressure type

PEFY-P VMA-E1
PEFY-P VMA3-E



*This image shows the PEFY-P VMA-E1 model.

P.68

- Thin design with a body height of 250 mm (all HP models) enables installation in a ceiling eighth small cavity space.
- The position of the inlet can be selected to be at the bottom or rear.
- Demonstrates a maximum external static pressure of 150 Pa* despite its compact design.
  *PEFY-P VMA-E1 models

Static pressure Maximum 150 Pa *Maximum pressure differs depending on model.	**Height 250 mm**	**Rear inlet Bottom inlet**
Drain pump (standard) Maximum lifting hight 700 mm		**Air flow rate 3 levels**

High static pressure type

PEFY-P VMH-E



P.71

- Maximum external static pressure of 260 Pa* allows for more flexibility in duct design.
  *P200, P250 VMH-E models
- Compatible with drain pumps (option) 550 mm.

Static pressure Maximum 260 Pa *Maximum pressure differs depending on model.	
Drain pump (option) Maximum lifting height 550 mm	**Air flow rate 3 levels**

Ceiling concealed type

Low static pressure type

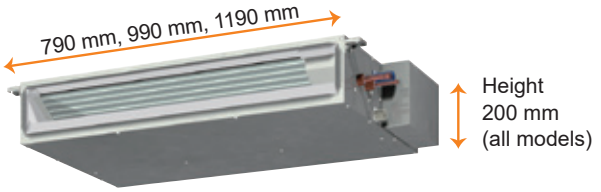
PEFY-P VMS1-E



A thin body 200 mm in height and a maximum external static pressure rating of 50 Pa provide significant flexibility of design and allow installation in narrow ceiling spaces. The lineup consists of models up to P63 with the same height.

Compact design with a height of no more than 200 mm (all models) and widths of 790 mm (P20-P32).

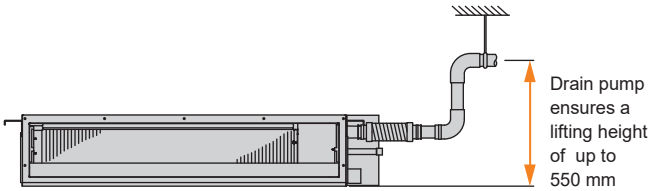
The thin body with a height of no more than 200 mm (all models) allows installation in a ceiling with small cavity space.



PEFY-P VMS1-E		P20	P25	P32	P40	P50	P63
Height	mm	200					
Width	mm	790			990		1190

Drain pump

For PEFY-P VMS1-E, the drain pump is equipped as a standard feature and eliminates the need for a drain trap. It has a maximum lifting height of 550 mm.



Low noise design

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

- Sound pressure level (standard static pressure) at 15 Pa

dB(A)

Sound pressure level	Capacity		P20	P25	P32	P40	P50	P63
	Fan Speed	High	29	30	32	33	35	36
		Mid	25	26	27	30	32	33
		Low	23	24	24	28	30	30

Demonstrates a maximum external static pressure of 50 Pa despite its compact design

External static pressure can be selected from 5, 15, 35 and 50 Pa (set to 15 Pa at the time of factory shipment).

Ceiling concealed type

Low static pressure type PEFY-P VMS1-E

			PEFY-P20VMS1-E	PEFY-P25VMS1-E	PEFY-P32VMS1-E	PEFY-P40VMS1-E	PEFY-P50VMS1-E	PEFY-P63VMS1-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
	*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
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.05	0.06	0.07	0.07	0.09	0.09
	Heating	kW	0.03	0.04	0.05	0.05	0.07	0.07
Current	Cooling	A	0.47	0.50	0.50	0.56	0.67	0.72
	Heating	A	0.36	0.39	0.39	0.45	0.56	0.61
External finish			Galvanized					
Dimension		mm	200 x 790 x 700			200 x 990 x 700		200 x 1,190 x 700
H x W x D		in.	7-7/8 x 31-1/8 x 27-9/16			7-7/8 x 39 x 27-9/16		7-7/8 x 46-7/8 x 27-9/16
Net weight		kg(lbs.)	19(42)		20(45)	24(53)		28(62)
Heat exchanger			Cross fin (Aluminium fin and copper tube)					
FAN	Type x Quantity		Sirocco fan x 2			Sirocco fan x 3		Sirocco fan x 4
	Airflow rate (Lo-Mid-Hi)	m^3/min	5.5-6.5-8	5.5-7-9	6-8-10	8-9.5-11	9.5-11-13	12-14-16.5
		L/s	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275
		cfm	194-229-282	194-247-317	212-282-353	282-335-388	335-388-459	424-494-583
	External static press.*2	Pa	5-15-35-50					
Motor	Type		DC 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		mm(in.)	O.D. 32 (1-1/4)					
Sound pressure level (Lo-Mid-Hi) (mesured in anechoic room)		dB<A>	23-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor : 27°CD.B./19°CW.B. (81°FD.B. / 66°FW.B.) Outdoor : 35°CD.B. (95°FD.B.)
Heating : Indoor : 20°CD.B. (68°FD.B.) Outdoor : 7°CD.B. / 6°CW.B. (45°FD.B. / 43°FW.B.)
Pipe length : 7.5m (24-9/16ft) Height difference : 0m (0ft)

*2 The external static pressure is set to 15 Pa at factory shipment.

Optional parts

Description	Model	Applicable capacity
Control box replace kit	PAC-KE70HS-E	P20, P25, P32, P40, P50, P63

Ceiling concealed type

Medium static pressure type

PEFY-P VMA-E1
PEFY-P VMA3-E



*This image shows the PEFY-P VMA-E1 model.

A wide range of external static pressure and the slim 250-mm-height body provide design flexibility for narrow ceiling spaces. The lineup consists of up to P140 with the same height.

Demonstrates a maximum external static pressure of 150 Pa despite its compact design

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

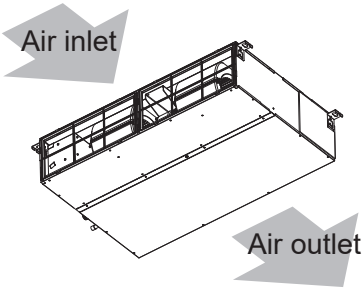
• External static pressure setting

Series	20	25	32	40	50	63	71	80	100	125	140
PEFY-P VMA-E1	35/50/70/100/150 Pa										
PEFY-P VMA3-E	35/50/70/100/125 Pa					—					

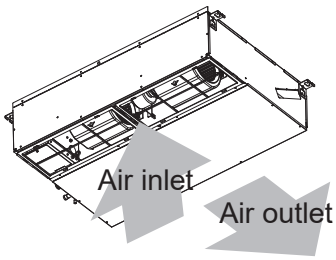
Air inlet direction can be easily changed

By simply switching the closing board and air filter, the inlet layout can be changed from the rear inlet to the bottom inlet. (At factory shipment: Rear inlet)

• Rear inlet



• Bottom inlet



* Units with a bottom inlet make more noise than those with a rear inlet.
The rear inlet is recommended for rooms that need to be quiet, such as bedrooms.

Ceiling concealed type

Medium static pressure type PEFY-P VMA-E1

			PEFY-P20VMA-E1	PEFY-P25VMA-E1	PEFY-P32VMA-E1	PEFY-P40VMA-E1	PEFY-P50VMA-E1	PEFY-P63VMA-E1
Power source			1-phase 220-230-240 V 50/60 Hz					
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
*2	Power input	kW	0.06	0.06	0.07	0.09	0.11	0.17
*2	Current input	A	0.53	0.53	0.55	0.64	0.74	1.29
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*3	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
*2	Power input	kW	0.04	0.04	0.05	0.07	0.09	0.15
*2	Current input	A	0.42	0.42	0.44	0.53	0.63	1.18
External finish			Galvanized steel plate					
External dimension HxWxD		mm	250 x 700 x 732	250 x 700 x 732	250 x 700 x 732	250 x 900 x 732	250 x 900 x 732	250 x 1,100 x 732
		in.	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8
Net weight		kg (lbs)	22 (49)	22 (49)	22 (49)	26 (58)	26 (58)	30 (67)
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 2
*4	External static press.	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
		mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type		DC motor					
	Motor output	kW	0.085	0.085	0.085	0.085	0.085	0.121
	Driving mechanism		Direct-driven by motor					
	Air flow rate (Low-Mid-High)	m^3/min	6.0 - 7.5 - 8.5	6.0 - 7.5 - 8.5	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0	12.0 - 14.5 - 17.0	17.5 - 21.0 - 25.0
		L/s	100 - 125 - 142	100 - 125 - 142	125 - 150 - 175	167 - 200 - 233	200 - 242 - 283	292 - 350 - 417
		cfm	212 - 265 - 300	212 - 265 - 300	265 - 318 - 371	353 - 424 - 494	424 - 512 - 600	618 - 742 - 883
Sound pressure level (measured in anechoic room) (Low-Mid-High)	*2 *5	dB<A>	26-28-29	26-28-29	28-30-34	28-30-34	28-32-35	30-34-39
Air filter			PP honeycomb fabric.					
Refrigerant piping diameter	Liquid (R410A)	mm (in.)	6.35 (1/4)Brazed	6.35 (1/4)Brazed	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	12.7 (1/2)Brazed	12.7 (1/2)Brazed	15.88 (5/8)Brazed
Field drain pipe size		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)	O.D.32 (1-1/4)	O.D.32 (1-1/4)

			PEFY-P71VMA-E1	PEFY-P80VMA-E1	PEFY-P100VMA-E1	PEFY-P125VMA-E1	PEFY-P140VMA-E1
Power source			1-phase 220-230-240 V 50/60 Hz				
Cooling capacity (Nominal)	*1	kW	8.0	9.0	11.2	14.0	16.0
	*1	BTU/h	27,300	30,700	38,200	47,800	54,600
*2	Power input	kW	0.17	0.17	0.24	0.34	0.36
*2	Current input	A	1.29	1.29	1.47	2.05	2.21
Heating capacity (Nominal)	*3	kW	9.0	10.0	12.5	16.0	18.0
	*3	BTU/h	30,700	34,100	42,700	54,600	61,400
*2	Power input	kW	0.15	0.15	0.22	0.32	0.34
*2	Current input	A	1.18	1.18	1.36	1.94	2.10
External finish			Galvanized steel plate				
External dimension HxWxD		mm	250 x 1,100 x 732	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 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)	30 (67)	39 (86)	39 (86)	42 (93)
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
*4	External static press.	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
		mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type		DC motor				
	Motor output	kW	0.121	0.121	0.244	0.244	0.244
	Driving mechanism		Direct-driven by motor				
	Air flow rate (Low-Mid-High)	m^3/min	17.5 - 21.0 - 25.0	17.5 - 21.0 - 25.0	23.0 - 28.0 - 33.0	28.0 - 34.0 - 40.0	29.5 - 35.5 - 42.0
		L/s	292 - 350 - 417	292 - 350 - 417	383 - 467 - 550	467 - 567 - 667	492 - 592 - 700
		cfm	618 - 742 - 883	618 - 742 - 883	812 - 989 - 1,165	989 - 1,201 - 1,412	1,042 - 1,254 - 1,483
Sound pressure level (measured in anechoic room) (Low-Mid-High)	*2 *5	dB<A>	30-34-39	30-34-39	32-37-41	35-40-44	36-41-45
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	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	15.88 (5/8)Brazed
Field drain pipe size		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)	O.D.32 (1-1/4)

Notes:

*1 Nominal cooling conditions
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
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°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
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 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.

Ceiling concealed type

Medium static pressure type PEFY-P VMA3-E (High efficiency type)

			PEFY-P20VMA3-E	PEFY-P25VMA3-E	PEFY-P32VMA3-E	PEFY-P40VMA3-E
Power source			1-phase 220-230-240 V 50/60 Hz			
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
*2	Power input	kW	0.110	0.120	0.120	0.140
*2	Current input	A	0.90	1.01	1.01	1.15
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0
	*3	BTU/h	8,500	10,900	13,600	17,100
*2	Power input	kW	0.090	0.100	0.100	0.120
*2	Current input	A	0.79	0.90	0.90	1.04
External finish			Galvanized steel plate			
External dimension HxWxD		mm	250 x 900 x 732	250 x 1,100 x 732	250 x 1,100 x 732	250 x 1,100 x 732
		in.	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8
Net weight		kg (lbs)	27(60)	32 (71)	32 (71)	32 (71)
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2
*4	External static press.	Pa	<35> - 50 - <70> - <100> - <125>	<35> - 50 - <70> - <100> - <125>	<35> - 50 - <70> - <100> - <125>	<35> - 50 - <70> - <100> - <125>
		mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <12.7>	<3.6> - 5.1 - <7.1> - <10.2> - <12.7>	<3.6> - 5.1 - <7.1> - <10.2> - <12.7>	<3.6> - 5.1 - <7.1> - <10.2> - <12.7>
	Motor Type		DC motor			
	Motor output	kW	0.085	0.121	0.121	0.121
	Driving mechanism		Direct-driven by motor			
	Air flow rate (Low-Mid-High)	m^3/min	12.0 - 14.5 - 17.0	13.5 - 16.0 - 19.0	13.5 - 16.0 - 19.0	14.5 - 18.0 - 21.0
		L/s	200 - 242 - 283	225 - 267 - 317	225 - 267 - 317	242 - 300 - 350
		cfm	424 - 512 - 600	477 - 565 - 671	477 - 565 - 671	512 - 636 - 742
Sound pressure level (measured in anechoic room) (Low-Mid-High) *2 *5		dB<A>	26-34-35	25-29-33	25-29-33	26-29-34
Air filter			PP honeycomb fabric.			
Refrigerant piping diameter	Liquid	mm (in.)	6.35 (1/4)Brazed	6.35 (1/4)Brazed	6.35 (1/4)Brazed	6.35 (1/4)Brazed
	Gas	mm (in.)	12.7 (1/2)Brazed	12.7 (1/2)Brazed	12.7 (1/2)Brazed	12.7 (1/2)Brazed
Field drain pipe size		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)

Notes:

*1 ,3 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor : 27°CD.B./19°CW.B. (81°FD.B. / 66°FW.B.) Outdoor : 35°CD.B. (95°FD.B.)
Heating : Indoor : 20°CD.B. (68°FD.B.) Outdoor : 7°CD.B. / 6°CW.B. (45°FD.B. / 43°FW.B.)
Pipe length : 7.5m (24-9/16ft) Level difference : 0m (0ft)

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

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

Optional parts

• For PEFY-P VMA-E1

Description	Model	Applicable capacity
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

• For PEFY-P VMA3-E

Description	Model	Applicable capacity
Filter box	PAC-KE92TB-E	P20
	PAC-KE93TB-E	P25, P32, P40
	PAC-KE95TB-E	P50, P63, P71, P80, P100, P125

Ceiling concealed type

High static pressure type

PEFY-P VMH-E

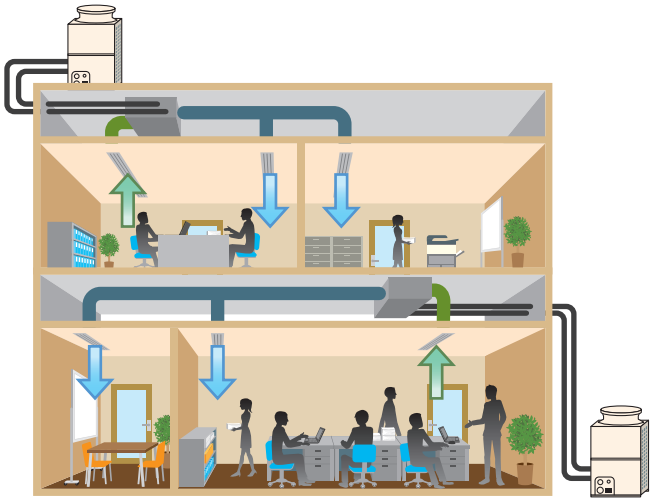


A wide range of external static pressure allows authentic duct air-conditioning with an elegant interior layout.

Maximum 260 Pa of external static pressure allows easy duct design

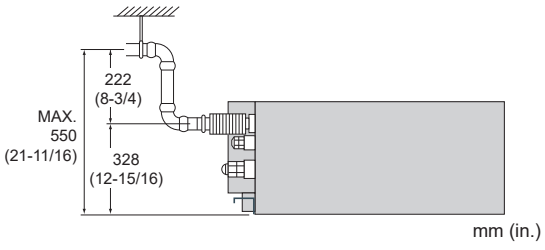
High external static pressure enables long duct and more freedom in design. It allows high interior oriented ducted air conditioning.

PEFY-P VMH-E		P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
External static pressure (Pa)	220V	50/100/200								——	
	230/240V	100/150/200								——	
	380V	——								110/220	
	400/415V	——								130/260	



Drain pump (option) ensures up to 550 mm (21-11/16 in.)

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.



Ceiling concealed type

High static pressure type PFFY-P VMH-E

			PEFY-P40VMH-E	PEFY-P50VMH-E	PEFY-P63VMH-E	PEFY-P71VMH-E	PEFY-P80VMH-E	PEFY-P100VMH-E	PEFY-P125VMH-E	PEFY-P140VMH-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz							
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
Heating capacity	*1	kW	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
	*1	BTU/h	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	Cooling	kW	0.19 / 0.23		0.24 / 0.30	0.26 / 0.33	0.32 / 0.40	0.48 / 0.58		0.48 / 0.59
	Heating	kW	0.19 / 0.23		0.24 / 0.30	0.26 / 0.33	0.32 / 0.40	0.48 / 0.58		0.48 / 0.59
Current	Cooling	A	0.88 / 1.06		1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34 / 2.66		2.35 / 2.70
	Heating	A	0.88 / 1.06		1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34 / 2.66		2.35 / 2.70
External finish			Galvanized							
Dimension H x W x D		mm	380 x 750 x 900			380 x 1,000 x 900		380 x 1,200 x 900		
		in.	15 x 29-9/16 x 35-7/16			15 x 39-3/8 x 35-7/16		15 x 47-1/4 x 35-7/16		
Net weight		kg (lbs)	41 (91)			50 (111)		65 (144)		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 (Lo-Hi)	m^3/min	10.0-14.0		13.5-19.0	15.5-22.0	18.0-25.0	26.5-38.0		28.0-40.0
		L/s	167-233		225-317	258-367	300-417	442-633		467-667
		cfm	353-494		477-671	547-777	636-883	936-1342		989-1413
	External static pressure *2 220V	Pa	50 · 100 · 200							
	External static pressure *2 230, 240V	Pa	100 · 150 · 200							
Motor	Type		1-phase induction motor							
	Output *3	kW	0.08		0.12	0.14	0.18	0.26		
Air filter (option)			Synthethic 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)		ø15.88 (ø5/8)					
Field drain pipe diameter		mm (in.)	O.D. 32 (1-1/4)							
Sound pressure level (Lo-Hi) *6	220V	dB (A)	27-34		32-38	32-39	35-41	34-42		
	230, 240V	dB (A)	31-37		36-41	35-41	38-43	38-44		

			PEFY-P200VMH-E	PEFY-P250VMH-E
Power source			3-phase 380-415V 50Hz / 3N ~ 380-415V 60Hz	
Cooling capacity	*1	kW	22.4	28.0
	*1	BTU/h	76,400	95,500
Heating capacity	*1	kW	25.0	31.5
	*1	BTU/h	85,300	107,500
Power consumption	Cooling	kW	0.99 / 1.14	1.23 / 1.41
	Heating	kW	0.99 / 1.14	1.23 / 1.41
Current	Cooling	A	1.62 / 1.86	2.00 / 2.30
	Heating	A	1.62 / 1.86	2.00 / 2.30
External finish			Galvanized	
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)	100 (221)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)	
FAN	Type x Quantity		Sirocco fan x 2	
	Airflow rate	m^3/min	58.0	72.0
		L/s	967	1200
		cfm	2048	2543
	External static pressure 380V	Pa	110 · 220 *4	
	External static pressure 400, 415V	Pa	130 · 260 *4	
Motor	Type		3-phase induction motor	
	Output	kW	0.76 *5	1.08 *5
Air filter (option)			Synthethic fiber unwoven cloth filter (long life)	
Refrigerant pipe diameter	Gas (Brazed)	mm (in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)
	Liquid (Brazed)	mm (in.)	ø9.52 (ø3/8)	
Field drain pipe diameter		mm (in.)	O.D. 32 (1-1/4)	
Sound pressure level	380V	dB (A)	42 (110Pa) / 45 (220Pa) *6	50 (110Pa) / 52 (220Pa) *6
	400, 415V	dB (A)	44 (130Pa) / 47 (260Pa) *6	52 (130Pa) / 54 (260Pa) *6

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, Outdoo r: 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB
*2 The external static pressure is set to 100Pa (at 220V) /150Pa (at 230, 240V) at factory shipment.
*3 The value are that at 240V.
*4 The external static pressure is set to 220Pa (at 380V) /260Pa (at 400, 415V) at factory shipment.
*5 The value are that at 415V.
*6 It is measured in anechoic room.

Optional parts

Description	Model	Applicable capacity	Remarks
Drain pump	PAC-KE04DM-F	P40, P50, P63, P71, P80, P100, P125, P140, P200, P250	
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-KE80TB-F	P71, P80	
	PAC-KE140TB-F	P100, P125, P140	
	PAC-KE250TB-F	P200, P250	



Ceiling suspended type





Ceiling suspended type

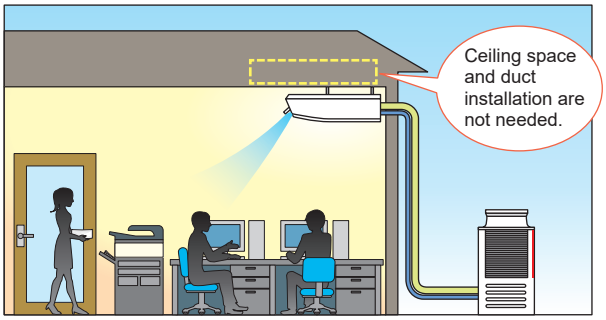
PCFY-P VKM-E



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

Easy installation

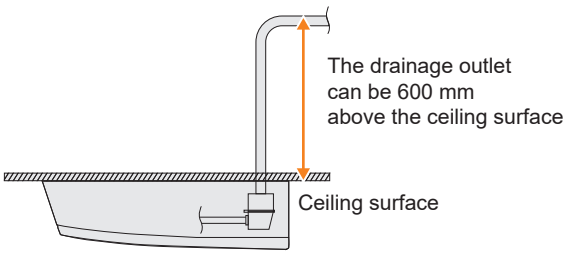
The ceiling suspended cassette can easily be installed without requiring ductwork, even if the ceiling does not have sufficient space.



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

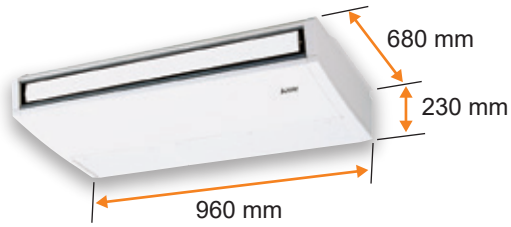
The optional drain pump allows the drain connection to be raised as high as 600 mm, expanding flexibility in choosing an installation location.

• Drain pump installation



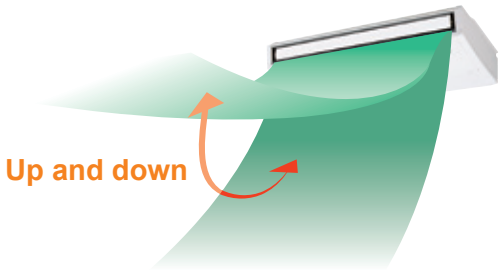
A height of 230 mm for harmony with the interior design

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



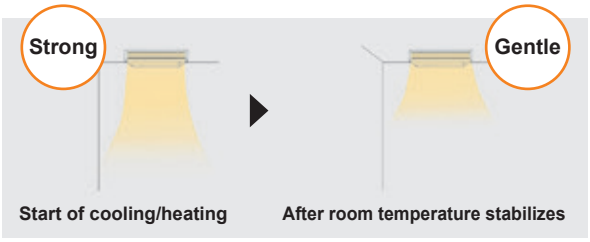
Auto vane control

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



Automatic air-speed adjustment

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



Ceiling suspended type PCFY-P VKM-E

			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
*1		BTU/h	15,400	24,200	38,200	47,800
Heating capacity *1		kW	5.0	8.0	12.5	16.0
*1		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 *2	m^3/min	10-11-12-13	14-15-16-18	21-24-26-28	21-24-27-31
	(Lo-Mid2-Mid1-Hi)	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)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	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		dB<A>	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.

Optional parts

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



Wall-mounted type





Wall-mounted type

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


PKFY-P10−32VLM


PKFY-P40−50VLM


PKFY-P VKM

A sophisticated indoor unit design matches any room interior without disturbing the atmosphere of the room.

A simple square design that matches any room interior

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

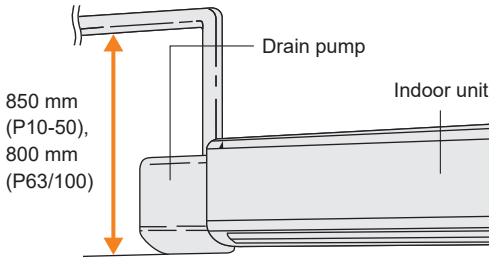
Lineup

The broad lineup from P10 to P100 offers flexible proposals tailored to diverse customer needs and applications.

	P10	P15	P20	P25	P32	P40	P50	P63	P100
VLM	●	●	●	●	●	●	●		
VKM								●	●

Optional drain pump

The optional drain pump allows the drain connection to be raised as high as 850 mm (P10-50) or 800 mm (P63/100), allowing more flexibility in piping layout design.



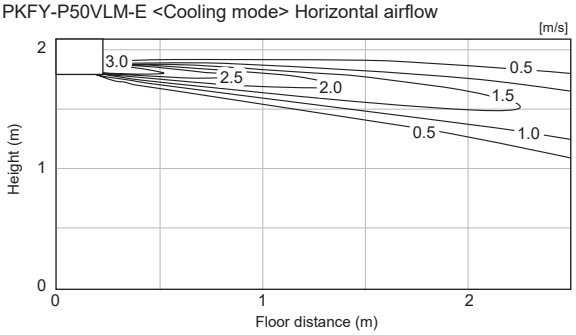
Airflow control

Horizontal airflow

Airflow control has been improved to achieve horizontal airflow. This reduces the cold draft feeling even with a wall mounted model, while ensuring optimal air conditioning.

• Airflow distribution

PKFY-P50VLM-E <Cooling mode> Horizontal airflow



Fan speed & vane control

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

	Fan Speed	Vane Control	
		Vane Angle	Swing mode
PKFY-P**VLM-E	4 speeds + AUTO	5 steps	✓

Wall-mounted type PKFY-P VLM-E

			PKFY-P10VLM-E	PKFY-P15VLM-E	PKFY-P20VLM-E	PKFY-P25VLM-E	PKFY-P32VLM-E	PKFY-P40VLM-E	PKFY-P50VLM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz						
Cooling capacity *1		kW	1.2	1.7	2.2	2.8	3.6	4.5	5.6
*1		BTU/h	4,100	5,800	7,500	9,600	12,300	15,400	19,100
Heating capacity *1		kW	1.4	1.9	2.5	3.2	4.0	5.0	6.3
*1		BTU/h	4,800	6,500	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling	kW	0.02			0.03	0.04		0.05
	Heating	kW	0.01			0.02	0.03		0.04
Current	Cooling	A	0.20			0.25	0.35		0.45
	Heating	A	0.15			0.20	0.30		0.40
External finish(Munsell No.)			Plastic, MUNSELL (0.7PB 9.2/0.4)						
Dimension H x W x D		mm(in.)	299 x 773 x 237 (11-25/32 x 30-7/16 x 9-11/32)					299 x 898 x 237 (11-25/32 x 35-3/8 x 9-11/32)	
Net weight		kg(lbs.)	11 (25)					13 (29)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)						
FAN	Type x Quantity		Line flow fan x 1						
	Airflow rate *2	m^3/min	3.3-3.5-3.8-4.2	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
	(Lo-Mid2-Mid1-Hi)	L/s	55-58-63-70	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	117-124-134-148	141-148-155-166	141-155-173-191	141-162-191-237	152-191-244-297	222-261-304-353	240-293-360-438
	External static pressure	Pa	0						
Motor	Type		DC motor						
	Output	kW	0.030						
Air filter			PP Honeycomb						
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2) Flare						
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4) Flare						
Field drain pipe diameter		mm(in.)	I.D.16 (5/8)						
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		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

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.

Wall-mounted type PKFY-P VKM-E

			PKFY-P63VKM-E	PKFY-P100VKM-E
Power source			1-phase 220-230-240V 50Hz / 1-phase 220V 60Hz	
Cooling capacity *1		kW	7.1	11.2
*1		BTU/h	24,200	38,200
Heating capacity *1		kW	8.0	12.5
*1		BTU/h	27,300	42,600
Power consumption	Cooling*4	kW	0.05	0.08
	Heating	kW	0.04	0.07
Current	Cooling*4	A	0.37	0.58
	Heating	A	0.30	0.51
External finish(Munsell No.)			Plastic (1.0Y 9.2/0.2)	
Dimension H x W x D		mm(in.)	365 x 1,170 x 295 (14-3/8 x 46-1/16 x 11-5/8)	
Net weight		kg(lbs.)	21 (46)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	
FAN	Type x Quantity		Line flow fan x 1	
	Airflow rate *2	m^3/min	16-20	20-26
	(Lo-Hi)	L/s	267-333	333-433
		cfm	565-706	706-918
	External static pressure	Pa	0	
Motor	Type		DC motor	
	Output	kW	0.056	
Air filter			PP Honeycomb	
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	I.D. 16(5/8)	
Sound pressure level (Lo-Hi) *2 *3		dB<A>	39-45	41-49

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-high).
*3 It is measured in anechoic room.
*4 Electrical characteristic of cooling are included optional drain-pump.

Optional parts

Description	Model	Applicable capacity
External LEV Box	PAC-SK17LE-E	P10
	PAC-SG95LE-E	P15, P20, P25, P32, P40, P50, P63
Drain pump kit	PAC-SK01DM-E	P10, P15, P20, P25, P32, P40, P50
	PAC-SH94DM-E	P63, P100



Remote Controller



System Controller

Mitsubishi Electric's Air-conditioner Network System (MELANS) leads air-conditioner management in a PC browser and network era.

MELANS

Use of MELANS products enhances the efficiency and quality of air conditioning, contributing to energy savings and reduction in running cost. A wide variety of MELANS products are available to meet all requirements - from the smallest and simplest to the largest and most complex.
Mitsubishi Electric offers a wide lineup of individual remote controllers, various centralized controllers, and centralized integrated software, as well as BMS interface hardware and software, etc. Above all, with AE-200A/AE-50A/EW-50A, PC browser and long distance remote control (monitoring and operating) via communication network is possible and easy.

Individual Remote Controllers

All local remote controllers feature liquid crystal and LED displays and are easy to operate.

Remote Controller


PAR-40MAAU


PAR-U01MEDU


PAR-CT01MAU

Simple Remote Controller


PAC-YT53CRAU

Wireless Remote Controller


PAR-FL32MA


PAR-FA32MA


PAR-SL100A-E


PAR-SE9FA-E


PAR-SL94B-E

PAR-SF9FA-E

Centralized Remote Controllers

ON/OFF Remote Controller


PAC-YT40ANRA

Touch Controller


TC-24B


AE-200A/AE-50A


EW-50A

PI Controller


PAC-YG60MCA

DIDO Controller


PAC-YG66DCA

AI Controller


PAC-YG63MCA

CITY MULTI

OUTDOOR UNIT
- S : PUMY
- Y : PUHY

INDOOR UNIT
- PLFY
- PEFY
- PKFY
- PMFY
- PCFY

Interface


LMAP04-E

LonWorks® transmission line

Interface

BACnet® transmission line (Ethernet)

Mitsubishi Electric's CITY MULTI can be easily connected to a building management system via BACnet®.

Ethernet

BUILDING MANAGEMENT SYSTEM



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

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

Model	Local remote controller *5					
	PAR-CT01MAU	PAR-40MAAU	PAR-U01MEDU	PAC-YT53CRAU	PAR-FL32MA	PAR-SL100A-E
Controllable Groups/Indoors (Group/Indoor) *4	1/16	1/16	1/16	1/16	1/16	1 / 1
■Operation						
ON/OFF	○	○	○	○	○	○
Mode (cool/heat/dry/fan/auto)	○	○	○	○	○	○
Mode (Setback) *7	○	○	○	○	N	○
Temperature setting	○	○	○	○	○	○
Local Permit/Prohibit	N	N	N	N	N	N
Fan speed	○	○	○	○	○	○
Air flow direction	○	○	○	○	○	○
■Status monitoring						
ON/OFF	○	○	○	○	○	○
Mode (cool/heat/dry/fan)	○	○	○	○	○	○
Temperature setting	○	○	○	○	○	○
Local Permit/Prohibit	○	○	○	○	○	N
Fan speed	○	○	○	○	○	○
Air flow direction	○	○	○	○	○	○
Indoor temperature	○	○	○	○	N	N
Filter sign	○	○	○	N	N	N
Error flashing	○	○	○	○	○	N
Error code	○	○	○	○	N	N
Operation hour	N	N	N	N	N	N
■Scheduling						
One day	○	○	○	N	N	N
ON/OFF times per day	1	1	1	N	1 / 1	1
Weekly	○	○	○	N	N	N
ON/OFF times per week	8 x 7	8 x 7	8 x 7	N	N	N
Annual	N	N	N	N	N	N
Optimized start-up	N	N	N	N	N	N
Auto-OFF timer	○	○	○	N	N	N
Min. timer setting unit (minute)	5	5	5	N	10	10
■Recording						
Error log	○	○	○	N	N	N
Daily/monthly report	N	N	N	N	N	N
Electricity charge	N	N	N	N	N	N
Energy management data	N	N	N	N	N	N
■Other						
Temp-set limitation by Local R/C	○	○	○	○	N	N
Temp-set limitation by System controller *6	○ *2	○ *2	○	○ *2	N	N
Operation lock	○	○	○	○	N	N
Night setback	N	N	N	N	N	N
Sliding temperature control	N	N	N	N	N	N
■Management (Group/Interlocked)						
Ventilation interlock	N / ○	N / ○	N / ○	N / ○	N	N
Group setting	○ *1	○ *1	○	○ *1	N	N
Block setting	N	N	N	N	N	N
Review of electricity charge	N	N	N	N	N	N
■Operating on Lossnay interlocked (Group/Interlocked)						
ON/OFF	N / ○	N / ○	N / ○	N / ○	N / ○ *3	N / ○ *3
Fan speed	N / ○	N / ○	N / ○	N	N	N
Ventilation mode	N / N	N / N	N	N	N	N
■Status monitoring on Lossnay interlocked (Group/Interlocked)						
ON/OFF	N / ○	N / ○	N / ○	N / ○	N	N
Fan speed	N / ○	N / ○	N / ○	N	N	N
Ventilation mode	N	N	N	N	N	N

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

*1. Group setting via wiring between Indoor units with cross-over cable;
*2. This function can only be set on the ME remote controller.
This function cannot be used with the MA/Simple MA remote controller.
(However, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and it is possible to use this function with them.)
*3. Interlock is set from system controllers (Except PAC-YT40ANRA) or local remote controllers.
*4. The maximum number of controllable units decreases depending on the indoor unit model.
*5. For indoor use only.
*6. No license is required for the TC-24B.
*7. This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group features said function.

Air conditioner control system interface

LMAP04U-E: LonWorks® Interface
Controls up to 50 Groups/50 units, for details, refer to its description

Model	System controller *5							
	PAC-YT40ANRA	TC-24B	AE-200A/AE-50A		AE-200A + AE-50A/EW-50A		EW-50A	
Controllable Groups/Indoors (Group/Indoor) *4	16/50	24/24	50/50		200/200		50/50	
			AE-200A	Browser	AE-200A	Browser	EW-50A	Browser
■Operation								
ON/OFF	◎	◎	◎ ■	◎ ■	◎ ■	◎ ■	▲	◎ ■
Mode (cool/heat/dry/fan/auto)	N	◎	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
Mode (Setback) *7	N	◎	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
Temperature setting	N	◎	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
Local Permit/Prohibit	N	◎	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
Fan speed	N	◎	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
Air flow direction	N	◎	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
■Status monitoring								
ON/OFF	◎	◎	◎	○	◎	○	▲	○
Mode (cool/heat/dry/fan)	N	○	○	○	○	○	N	○
Temperature setting	N	○	○	○	○	○	N	○
Local Permit/Prohibit	○	○	○	○	○	○	N	○
Fan speed	N	○	○	○	○	○	N	○
Air flow direction	N	○	○	○	○	○	N	○
Indoor temperature	N	○	○	○	○	○	N	○
Filter sign	N	○	○	○	○	○	N	○
Error flashing	○	◎	○	○	○	○	▲	○
Error code	○	○	○	○	○	○	N	○
Operation hour	N	N	N	N	N	N	N	N
■Scheduling								
One day	N	○	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
ON/OFF times per day	N	16	24	24	24	24	N	24
Weekly	N	○	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
ON/OFF times per week	N	16 x 7	24 x 7	24 x 7	24 x 7	24 x 7	N	24 x 7
Annual	N	N	◎ ■	◎ ■	◎ ■	◎ ■	N	◎ ■
Optimized start-up	N	N	○	○	○	○	N	○
Auto-OFF timer	N	N	N	N	N	N	N	N
Min. timer setting unit (minute)	N	5	1	1	1	1	N	1
■Recording								
Error log	N	○	○	○	○	○	N	○
Daily/monthly report	N	N	N	N	N	N	N	N
Electricity charge	N	N	N	N	N	N	N	N
Energy management data	N	N	N	●	N	●	N	●
■Other								
Temp-set limitation by Local R/C	N	N	N	N	N	N	N	N
Temp-set limitation by System controller *6	N	○	N	○ *1 *3	N	○ *1 *3	N	○ *1 *3
Operation lock	N	◎	N	N	N	N	N	N
Night setback	N	N	○	○ *1	○	○ *1	N	○ *1
Sliding temperature control	N	N	○	○ *1	○	○ *1	N	○ *1
■Management (Group/Interlocked)								
Ventilation interlock	○	○	○	○ / ○ *1	○	○ / ○ *1	N	○ / ○ *1
Group setting	○	○	○	○ *1	○	○ *1	N	○ *1
Block setting	N	N	○	○ *1	○	○ *1	N	○ *1
Review of electricity charge	N	N	N	N	N	N	N	N
■Operating on Lossnay interlocked (Group/Interlocked)								
ON/OFF	◎ / ◎ *2	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	▲ / ▲	◎ / ◎
Fan speed	N	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	N / N	◎ / ◎
Ventilation mode	N	◎ / N	◎ / N	◎ / N	◎ / N	◎ / N	N / N	◎ / N
■Status monitoring on Lossnay interlocked (Group/Interlocked)								
ON/OFF	N	○ / ○	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	▲ / ▲	◎ / ◎
Fan speed	N	○ / ○	○ / ○	○ / ○	○ / ○	○ / ○	N / N	○ / ○
Ventilation mode	N	○ / N	○ / N	○ / N	○ / N	○ / N	N / N	○ / N

◎: Each group/Batched ○: Each group ●: AE-200A/AE-50A/EW-50A license registration possible. N : Not Available (Not Used.) ▲: Batched handling (for maintenance) ■: Block

*1. Installation possible at Initial setting web browser;
*2. Interlock is set at Local remote controller.
*3. This function can only be set on the ME remote controller.
This function cannot be used with the MA/Simple MA remote controller.
(However, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and it is possible to use this function with them.)
*4. The maximum number of controllable units decreases depending on the indoor unit model.
*5. For indoor use only.
*6. No license is required for the TC-24B.
*7. This function is supported only when all of the indoor units, remote controllers, and system controllers that are connected to a given group features said function.

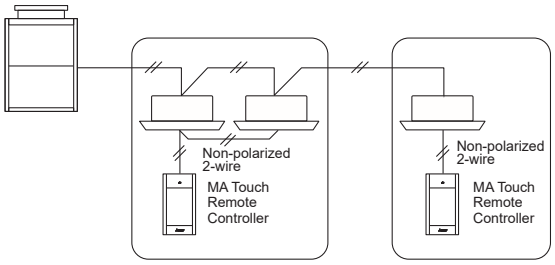
MA Touch Remote Controller



PAR-CT01MAU-SB

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

• Example of system configuration



*When a PAR-CT01MAU is connected to a group, no other MA remote controllers can be connected to the same group.

• Multiple color patterns

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



• Language selection

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

• Full color touch panel & backlit display

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



Touch Panel

3.5 inch/HVGA Full Color LCD



• Operation panels



Temperature setting



Operation mode



Fan speed



Vane control



Ventilation



Louver control

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





• **Bluetooth® low energy technology**

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

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



App screen image



User App



Setting App

<User App>

MELRemo

▶For iPhone

Available on the App Store

* For iOS (11.0 or later)

▶For Android

GET IT ON Google Play

* For Android (7.0 or later) *1

<Setting App>

MELRemo

▶For iPhone

Available on the App Store

* For iOS (11.0 or later)

▶For Android

GET IT ON Google Play

* For Android (7.0 or later) *1

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

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

• Functions

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

Wired MA Remote Controller



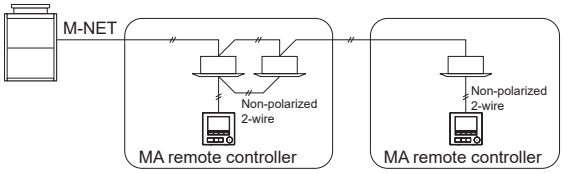
PAR-40MAAU

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

- **Backlit LCD (Liquid Crystal Display)**
  Large, easy-to-see display.
  The screen background can be changed to black to suit the ambience of the room.
- **3D i-see Sensor***
  Settings can be made for the 3D i-see Sensor.
- **Draft reduction***
  "Close" has been added to the manual vane angle selection. The air outlet can be closed to reduce drafts from the air conditioner.
- **Auto descending panel***
  Panels can be lowered/raised using the remote controller. Panel position can also be selected from a number of patterns.

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

• Example of system configuration



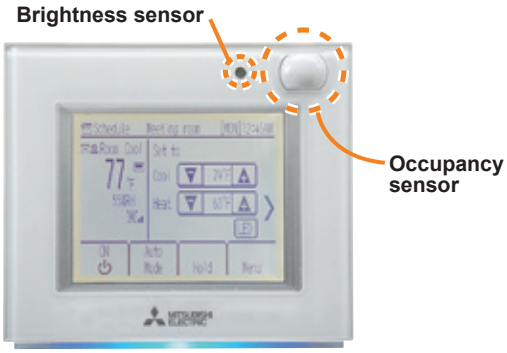
*When a PAR-40MAAU is connected to a group, no other MA remote controllers can be connected to the same group.

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

ME Remote Controller

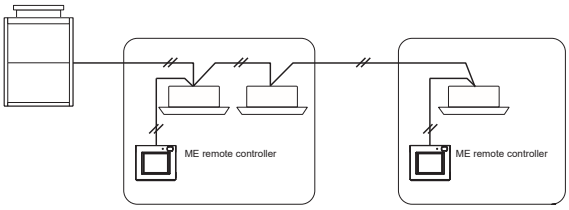


PAR-U01MEDU

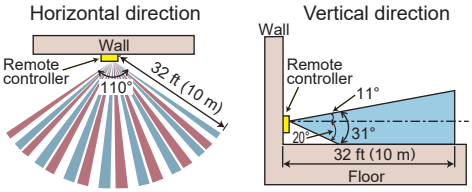
Dimensions : 5-9/16(W) x 4-3/4(H) x 1(D) in.
: 140(W) x 120(H) x 25(D) mm

- **Occupancy sensor**
  Detects vacancy for energy-save control.
- **Touch panel & backlit LCD**
  Shows the operation settings screen.
  When the backlight is off, touching the panel turns it on, and it will stay lit for a prespecified period of time.
- **LED indicator**
  Shows the operation status in different colors.
  It lights up during normal operation, turns off when units are stopped, and blinks when an error occurs.
- **Brightness sensor**
  Detects the brightness of the room for energy-save control.
- **Temperature & humidity sensor**
  Detects room temperature and relative humidity.

• System configuration example



Occupancy sensor detection zone

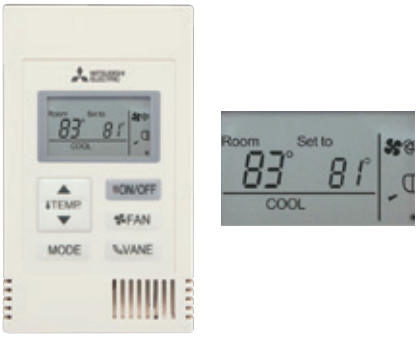


• Functions

○:Each group ×:Not available

Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	○	○
Operation mode switching	Switches between Cool / Dry / Fan / Heat / Setback / Auto. Operation modes vary depending on the indoor unit model. Auto mode is for CITY MULTI R2, H2i R2 and WR2-Series only.	○	○
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	○	○
Fan speed setting	Changes fan speed. * Available fan speeds vary depending on the model.	○	○
Air flow direction setting	Changes airflow direction. * Available airflow directions vary depending on the model.	○	○
Allows/disallows local operation	The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode setting, temperature setting, fan speed, air direction, and filter sign reset. * While an operation is prohibited, the operation icon lights up.	×	○
Error information	When an error occurs, an error code and the unit address appear. A contact number can be set to appear when an error occurs. (The above information needs to be entered in the Service menu.)	—	○
Schedule (Weekly timer)	Weekly ON/OFF times, operation mode, and set temperatures can be set. • Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week. * Not valid when the ON/OFF timer is set.	○	○
Timer	ON/OFF timer Turns ON and OFF daily at a set time. • Time can be set in 5-minute increments. • It is also possible to set the ON time only or the OFF time only. Auto-OFF timer Turns off the unit after a certain period of operation. • Operation time can be set to a value from 30 to 240 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.	○	○

Simple Remote Controller

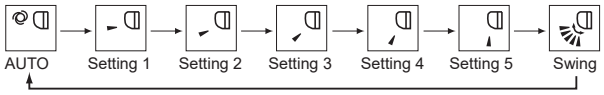


PAC-YT53CRAU (MA)

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

- **Backlit LCD**
  Backlight for operation in dark places
- **Flat back**
  The remote controller can be installed without making a hole in the wall.
  Thickness is less than 19/32 in (14.5 mm).
- **Vane button (standard)**
  The Vane button has been added to allow users to change airflow direction (ceiling cassette and wall mounted types).

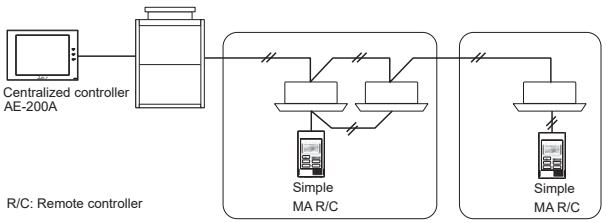
Pressing the button changes the vane direction.



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

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

• System configuration example



• Functions

□: Each unit ○: Each group ×: Not available

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

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, PLFY-P VFM, PKFY-P VLM 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
(4-way cassette signal receiver)
Dimensions: 273(H) x 29(D) mm

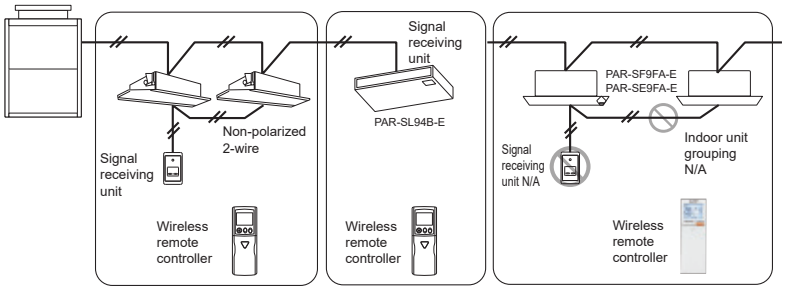
PAR-SF9FA-E
(2 x 2 cassette signal receiver)
Dimensions: 214(H) x 25.5(D) mm



PAR-SL94B-E
(Wireless remote controller kit for ceiling suspended type)
Dimensions: 182(W) x 57(H) x 31(D) mm

- **No need to configure addresses for group operation.**
- **The LED remains lit to show operation status. It also provides error information via the number of blinks.**
- **Can be used with the MA remote controller**.
  *When used in group configurations, wiring is required between indoor units.
  *ME remote controller and/or Lossnay remote controller cannot be combined in the same group.
- **Multiple indoor units cannot be controlled with the PAR-SL100A-E.**
  Only one indoor unit can be used in each group.
- **LCD temperature setting and display in 1°C/1°F increments.**

• System configuration example



Compatibility table

Indoor unit model	Receiver	Transmitter
PMFY-P VBM PLFY-P VLMD PEFY-P VMS1 PEFY-P VMA3 PEFY-P VMH	PAR-FA32MA	PAR-FL32MA
PCFY-P VKM	PAR-FA32MA PAR-SL94B-E*1	

Indoor unit model	Receiver	Transmitter
PKFY-P VLM	Built-in	PAR-FL32MA PAR-SL100A-E
PKFY-P VKM	Built-in	PAR-FL32MA
PLFY-P VEM-PA	PAR-FA32MA*2	PAR-FL32MA*3
	PAR-SE9FA-E*2	PAR-SL100A-E
PLFY-P VFM-E1	PAR-FA32MA*2	PAR-FL32MA*3
	PAR-SF9FA-E*2	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.	✳	✳
Timer operation	One ON/OFF setting can be set per day.	○	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (ON/OFF, Change operation mode, Set temperature, Reset filter). *1 If operation is performed when the local remote controller inactivation command is received from the main system controller, a buzzer will sound and an LED will flash.	×	○*1
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one Lossnay. The Lossnay will run in interlock with the operation of the indoor unit. *2 The fan rate and mode cannot be changed.	×*2	×

* Some models will have a different display for the air flowdirection and fan speed. Set the air flow direction and fan speed when performing initial settings.

Advanced Touch Controller

Advanced Touch Controller TC-24B ensures easy and simple operation on the touch panel to offer an optimal air environment by each unit.

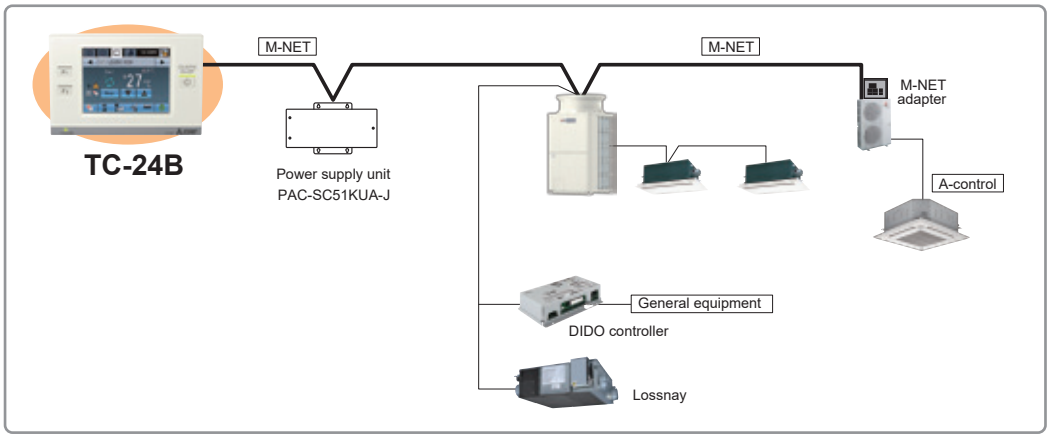


TC-24B

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

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

• System structure



Backlit LCD touch panel

A 5-inch color LCD (Liquid Crystal Display) touch panel enables easy and simple operation.
When the backlight is off, touching the panel turns it on.

GRID (zoom out) screen
Displays the operation status of all groups.



GRID (zoom in) screen
Displays the operation status of each group in detail.



Controls 24 indoor units in all
One screen shows the operation conditions of 24 connected indoor units.

Weekly and daily schedules
5 daily schedule patterns and 12 weekly schedule patterns can be set (max. 16 settings per pattern).

System changeover
Operation mode can be switched according to the indoor temperature setting and target temperature of each group or a representative indoor unit.

Setback function
Press SETBACK button once, indoor temperature can be maintained in a set temperature range.

Override function
Used with setback function. Temperature range can be changed during setback function.

Hold function
Holds the current operation and prohibits the schedule settings.

• Functions

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

Item	Description	Operations	Display
Controllable units	24 units / groups		
ON/OFF	ON and OFF operation for the air conditioner units.	◎	◎
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat / Setback. Operation modes vary depending on the air conditioner unit. Auto mode and Setback mode are for CITY MULTI R2, H2i R2, and WR2-Series only.	◎	◎
Temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	◎	◎
Fan speed setting	Models with 5 air flow speed settings: High/Mid-1/Mid-2/Low, Auto Models with 4 air flow speed settings: High/Mid-1/Mid-2/Low Models with 3 air flow speed settings: High/Mid/Low Models with 2 air flow speed settings: High/Low * Fan speed setting (including Auto) varies depending on the model.	◎	◎
Air flow direction setting	Air flow direction angles 4-angle or 5-angle, Swing, Auto/Louver ON/OFF * Air flow direction settings vary depending on the model.	◎	◎
Permit / Prohibit	The ON/OFF, operation mode, setting temperature, fan speed, air direction, and filter sign reset operations using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the Lossnay group.	◎	◎
Room temperature display	The room temperature can be displayed.	×	○
Error display	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	×	□◎
Schedule operation	Weekly schedule setting up to 12 pattern is available.	○	○
Ventilation (independent)	Switches the mode "Bypass/Heat recovery/Auto" for Lossnay groups.	◎	◎
Ventilation (interlocked)	The Lossnay will run in interlock with the operation of indoor unit.	◎	◎
System changeover	Operation mode can be switched to an optimal mode depending on indoor temperature setting and target temperature of each group or a representative indoor unit.	●	●
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.	◎	◎
External output (Error output, operation output)	"ON/OFF" and "error/normal" are output with the level signal.	◎	◎

Centralized Controller



AE-200A/AE-50A

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.

- **Promotes energy savings through the comprehensive display of the air-conditioning equipment's energy consumption.**
  - The energy consumption of the air-conditioning equipment can be displayed by individual area in graph form for easy viewing.
  - Operating status can be easily confirmed by comparing power consumption with the previous year and with the electrical power target.
  - Floor layout is displayed on the 10.4-inch LCD touch panel for easy management of air-conditioning equipment.
- **An optimal system can be easily and flexibly established according to the size of the facility.**
  - Up to 50 indoor units can be managed.
  - Centralized control of up to 200 indoor units can be performed with three "AE-50A/EW-50A" expansion controllers.
  - More than 200 indoor units can be managed by connecting the PC to a web browser.*1

*1. Contact your local distributor regarding support for this feature.

• Control screen for power consumption

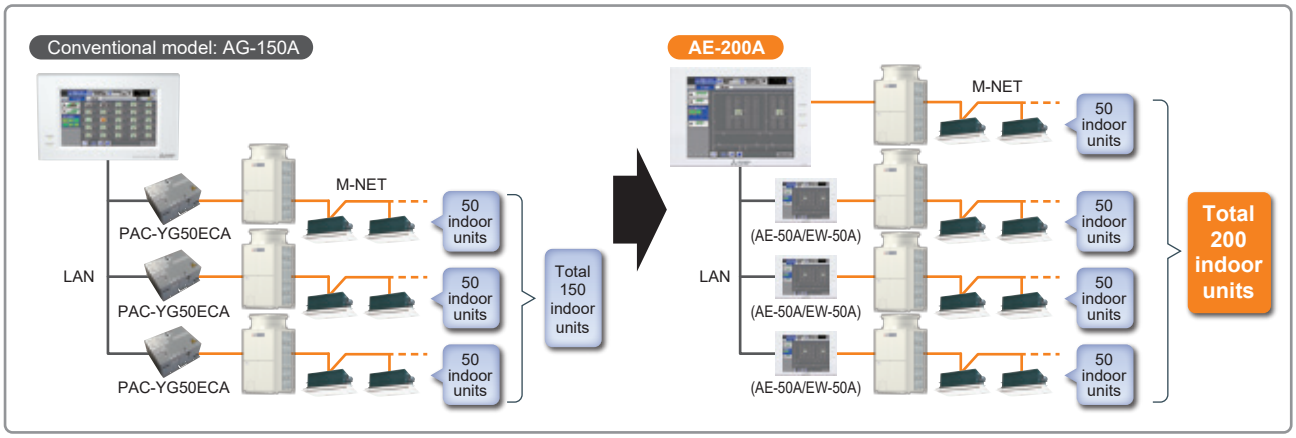


Energy consumption of a targeted area is displayed by month, day, and hour.
Energy consumption of two different units, groups, and blocks can be compared.
Fan operation time and energy consumption can be displayed.

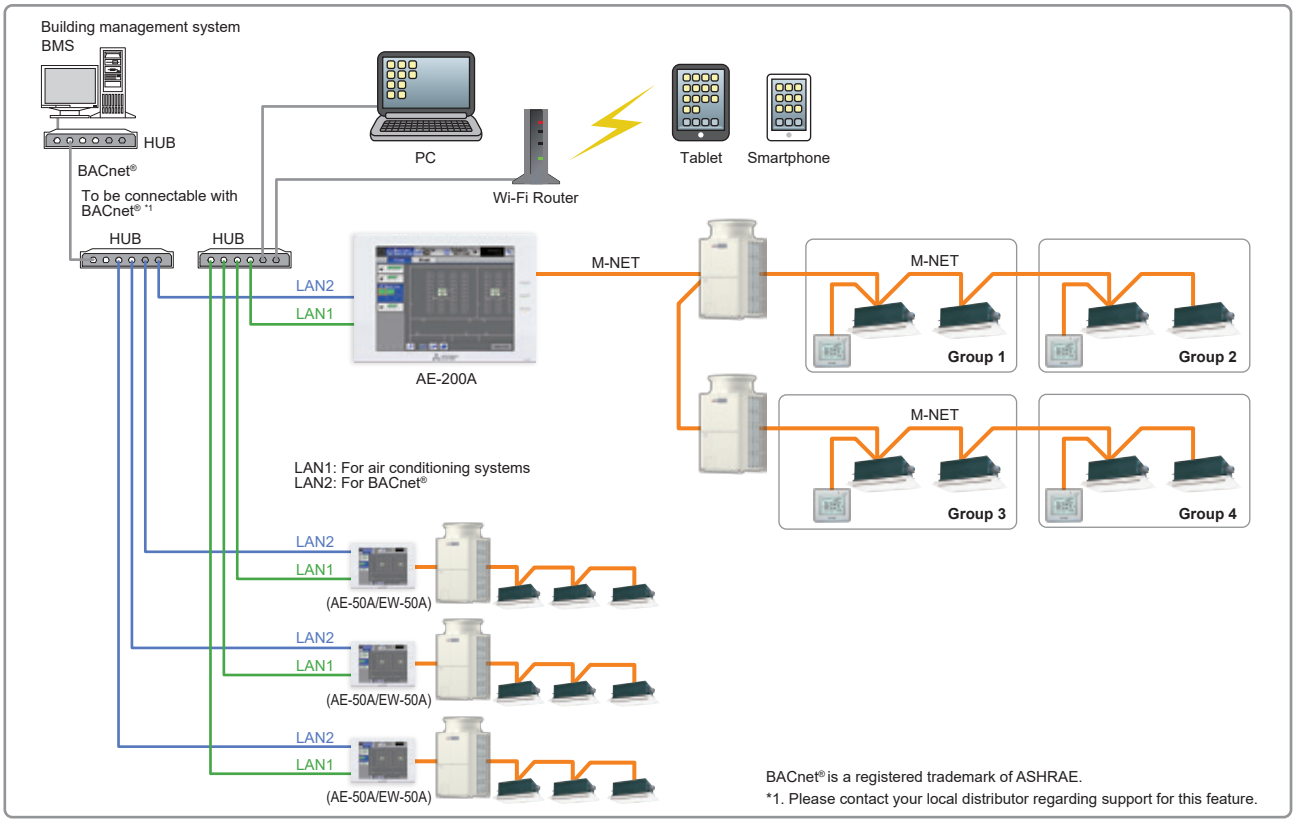


The energy consumption of each air-conditioning equipment is ranked and displayed by area, thus visualizing high-load components.
Energy consumption can also be compared with electrical energy targets.

• 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 CAHV, CRHV, Air To Water (PWFY) units: Heating, Heating ECO, Hot Water, Anti-freeze, Cooling * Auto mode is for CITY MULTI R2 and WR2 Series only.	○◎△●	○
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 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/output	By using optional external input/output adapter (PAC-YG10HA-E) you can set and monitor the following: Input: By level signal: "Batch ON/OFF", "Batch emergency stop" By pulse signal: "Batch ON/OFF", "Enable/disable local remote controller" Output: "ON/OFF", "Error/Normal"	◎	◎
Energy Management	Bar Graph: Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily, and monthly. Line Graph: Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA.	×	□○●
ME remote controller	The status of sensor on this controller can be monitored.	×	○
Smartphone/Tablet	The specified web browser on iOS and Android OS can monitor and operate the AE-200A/AE-50A/EW-50A.	○	○
New web design	Revised web screen design for a more user friendly interface.	○◎△●	○
Initial setting software	The initial setting can be configured without the connection of AE-200A/AE-50A/EW-50A.	×	×
Apportionment of power consumption	Apportionment of power consumption can be calculated on AE-200 without TG-2000A. *	●	□●
BACnet® communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL.	○	×

* Even when the number of indoor units is 50 or less, the system must consist of AE-200A and EW-50A/AE-50A. AE-200A M-NET cannot be used.

Centralized Controller



EW-50A

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

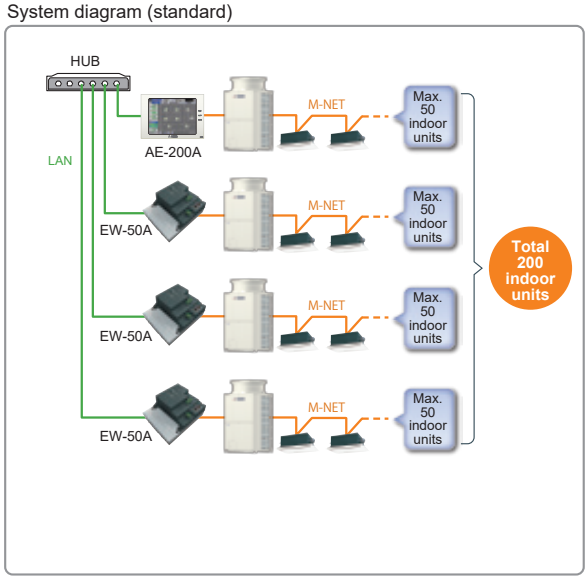
Can be used as an expansion controller for the AE-200A
Up to 200 indoor units can be operated and monitored by connecting three EW-50A units to an AE-200A controller.

Apportionment of electricity charges
The power consumption of each air conditioner can be calculated with an AE-200A controller. 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.

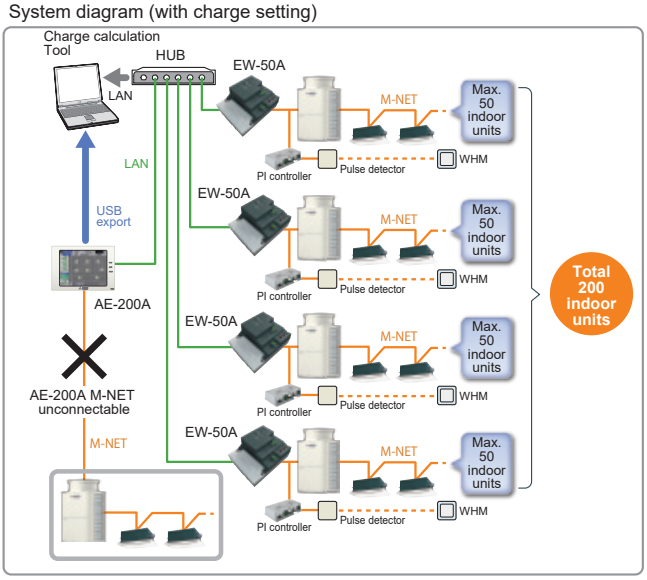
*The function to apportion electricity charge requires the use of both the AE-200A and EW-50A.
*For other restrictions, refer to the Installation Manual and Instruction Book.

• System structure

System diagram (standard)



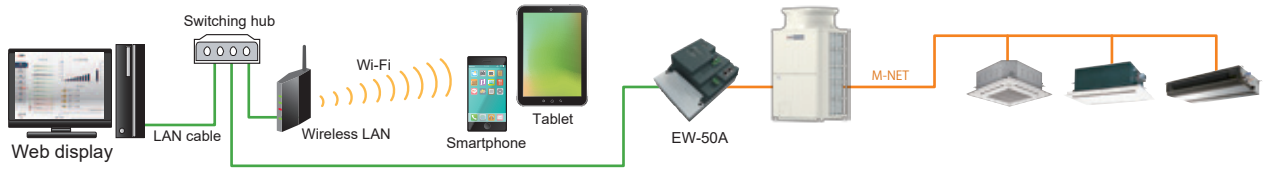
System diagram (with charge setting)



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

• Air conditioner units can be operated and monitored independently using a PC
Even without an AE-200A controller, the EW-50A can operate and monitor air-conditioner units using browser software*1.
Air conditioners can be operated and monitored remotely via the Internet. In addition, air conditioners in multiple buildings can be collectively operated.*2

* 1. This operation has been confirmed on Internet Explorer 11, Edge44, Google Chrome ver.83, and Safari13.
Microsoft® Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the U.S. 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-50A via the Internet, do not connect the EW-50A 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.

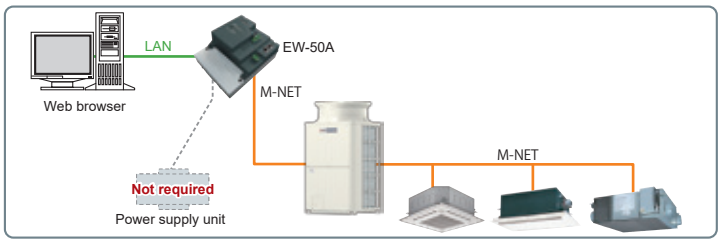
* The billing function requires a PI Controller and watt-hour meter with pulse transmitter (procured locally).





• Operable without a transmission line power supply unit

The EW-50A 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 temperature setting can be automatically changed*1 according to the room temperature around the air-conditioner unit to allow greater energy savings without sacrificing comfort.

* 1. With this function, the temperature setting can be changed in +4°F/2°C increments for cooling and -4°F/2°C increments for heating during a set time interval. In cases where the intake temperature and the temperature setting are significantly different, exclusion from the energy-saving target is possible.

• Functions

* 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.	◎	○
Room temperature setting	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.	◎	○
Set temperature 1°F/0.5°C increments	The temperature can be set and displayed in 1°F/0.5°C increments. * With some unit combinations, the temperature is set in 1°F/1°C increments.	◎	○
Fan speed setting	The fan speed can be set to 4 levels, 3 levels, 2 levels, or automatic. * Available fan speeds differ depending on the unit.	◎	○
Air direction setting	Fixed swing in 5 levels or auto air direction can be set. * Available air directions differ depending on the unit.	◎	○
Prohibition of local remote controller operation	It is possible to disable the ability to use to local remote controllers to run or stop the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation. * In the Lossnay group, only ON/OFF and filter reset can be disabled. * Disabling of the fan speed, air direction, and timer operation can be set for the TC-24B, PAR-40MAAU, PAR-U01MEDU and PAC-YT53CRAU models.	◎	○
Room temperature display	Displays the suction temperature of the indoor unit.	—	○
Error display	Displays the current error content together with the address.	—	◎
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	◎	○
Energy management	Displays the power consumption* or operating hours. * Optional part required.	—	◎
Ventilator operation (solo)	Group operation is possible for free plan Lossnay units only. * The above group operation mode includes auto ventilation, heat exchange, and normal ventilation.	◎	○
Ventilator operation (interlocked)	Free plan Lossnay units and indoor units can be interlocked and operated together. * At this point, air volume can be operated, but the ventilation mode cannot be selected.	◎	○
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following: Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input. Pulse signal: Batch ON/OFF or Operation Disable/Enable * Requires an external power supply and external I/O adapter (PAC-YG10HA) sold separately. Only one input can be selected from the above inputs.	□	—
External output (error output, operation output)	Using the level signal, ON/OFF, and Error/Normal are output. * Requires an external power supply and external I/O adapter (PAC-YG10HA) sold separately.	—	□
Web browser	Monitor/operation, failure, filter sign monitoring, schedule setting, interlocked control setting (option), energy-saving control setting (option), energy-saving peak cut setting (option), set temperature range restrictions, other	◎ *1	◎ *1
Filter reset	Filter sign reset	○	○
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-50A alone. However, the apportioned electricity charge function requires an AE-200A.

■Connectable equipment: CITY MULTI
A Control Mr. Slim (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

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

ON/OFF Remote Controller

Just press a switch to start. All 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).

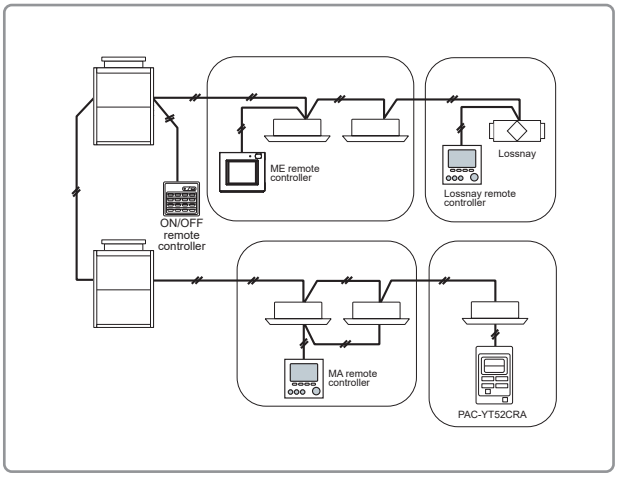


PAC-YT40ANRA

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

- **Control of up to 16 groups/50 indoor units**
  - •Up to 16 groups/50 units can be operated with a single ON/OFF remote controller.
  - •A general-purpose interface is also available for turning ON/OFF general devices.
- **Just press a switch to start**
  - •All 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**
  - •Any error in an air conditioner can be easily confirmed by the flashing of the LED. The LED also indicates whether each group is running or stopped.
- **Interlock operation with an external system**
  - •On/off operation can be flexibly interlocked with a card reader, fire alarm system, or building management system, etc. using the external input/output function.
- **Flexible group setting**
  - •Groups can be easily configured, allowing group patterns to be set freely according to the layout.
  - •The ON/OFF remote controller can be connected to the indoor/outdoor transmission line without a power supply unit.

• System example



• Function

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

Item	Description	PAC-YT40ANRA	
UNITS	Max No.Units	50 units/16 groups	
		Operations	Display
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 is only possible with Lossnay units. *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

PI Controller



PAC-YG60MCA

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

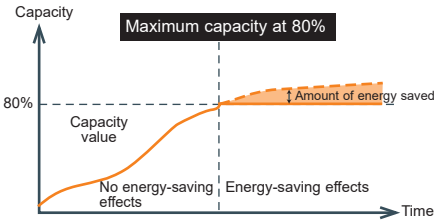
The PI controller counts pulses from a power meter, gas meter, water meter, and calorimeter.
By combining the AE-200A/AE-50A/EW-50A, the charges for each unit can be calculated and peak cut (e.g., demand control) operations can be performed.
The meters can be monitored on the AE-200A/AE-50A LCD.

Energy Saving Control (Peak Cut)

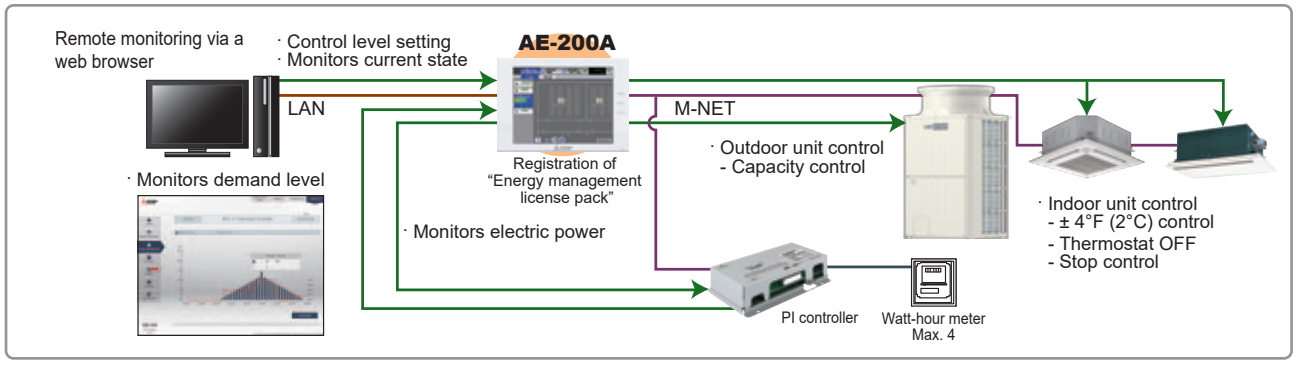
The PI controller enables energy saving control.
(Registration of the "Energy management license pack" is required.)

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

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



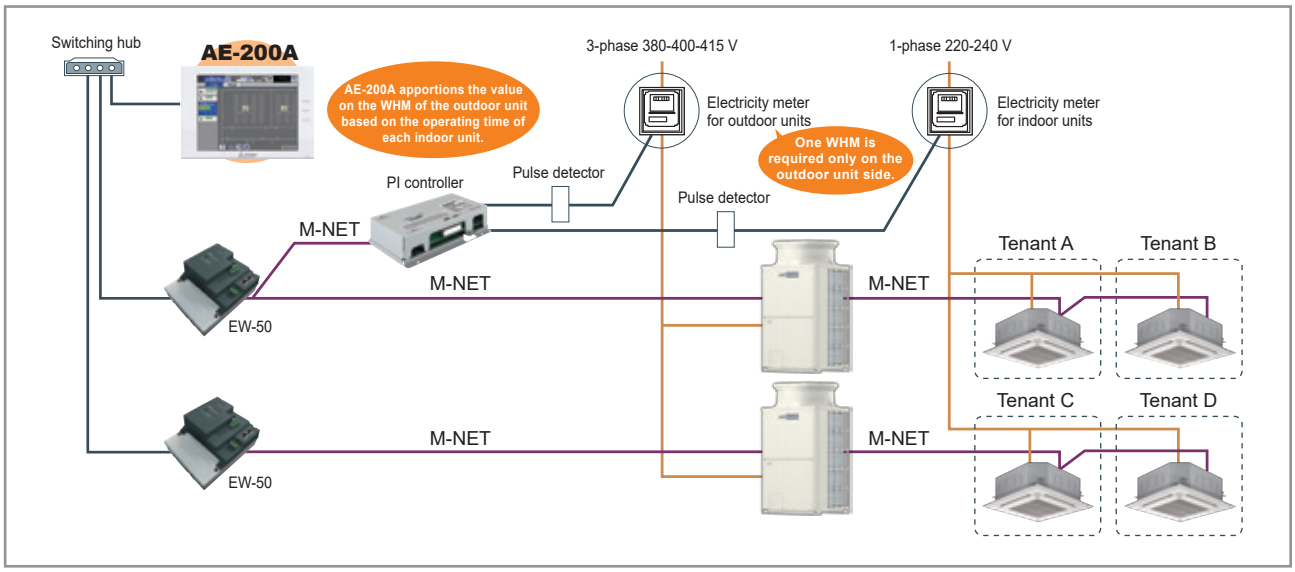
• System structure



Charge Calculation

• System structure

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



DIDO Controller



PAC-YG66DCA

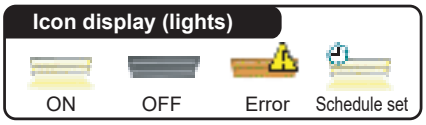
Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

The DIDO controller is used in combination with an AE-200A/AE-50A/EW-50A to operate general-purpose equipment, as well as to monitor operating and error status. It is equipped with two sets of standard terminals (Channels 1 and 2), and four sets of expansion connectors for the input/output terminals.
The expansion cable is optional.
Operation can be monitored or performed from the AE-200A/AE-50A LCD.
In addition, this device includes a function that interlocks M-NET devices such as indoor units, general equipment, etc.

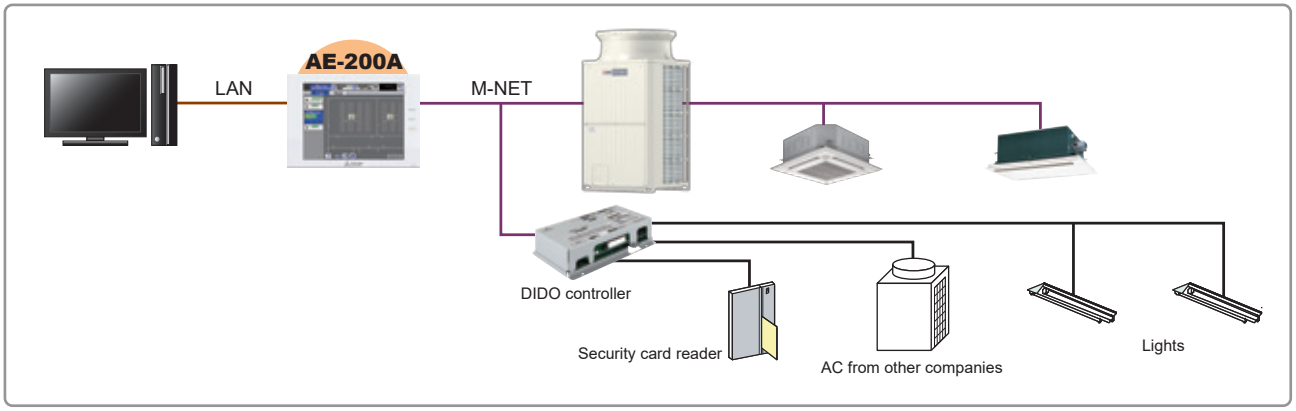
Control of general-purpose equipment

Equipment other than air conditioners (air conditioners from other companies, lights, ventilators, etc.) can be controlled and monitored.

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



• System structure



AI Controller



PAC-YG63MCA

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

The AI controller measures temperature and humidity; it also has an alarm capability if the measurement data exceeds defined setpoints. Measurement data history can be displayed only via the AE-200A/AE-50A/EW-50A web browser.
Temperature and humidity can be displayed on the AE-200A/AE-50A LCD. Furthermore, an alarm can be output if measurement data exceeds a preset upper or lower limit.
The AI controller also features a function that interlocks M-NET devices for indoor units, etc.

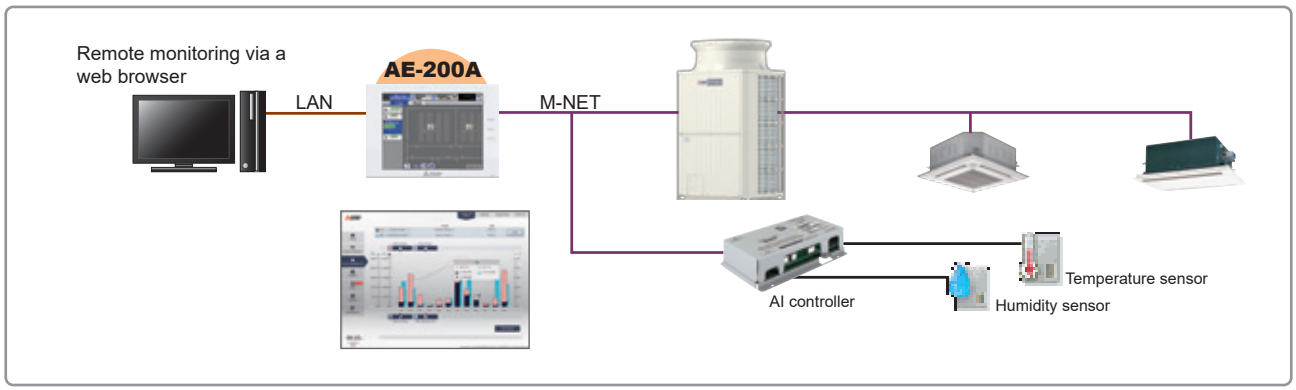
Temperature/humidity monitoring

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

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

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

• System structure



Open network supported

The following options are available to connect CITY MULTI to an open network.

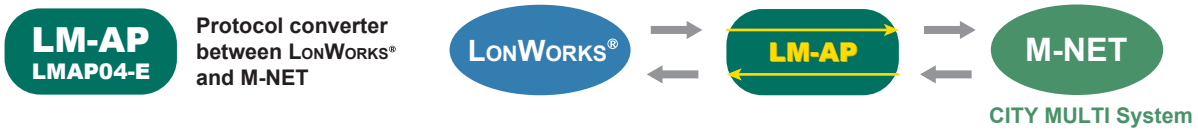
- **LONWORKS®**
- **BACnet®**

LONWORKS®

LMAP04-E

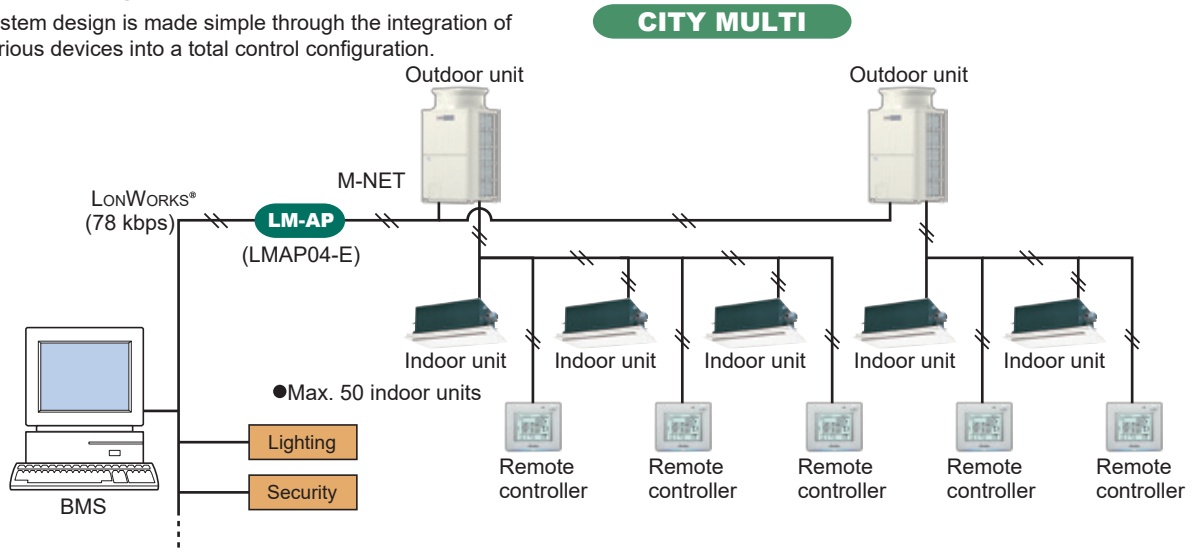
CITY MULTI can be easily combined with a Building Management System (BMS) via LONWORKS® and M-NET adapter LMAP04-E. LONWORKS® is an open transmission protocol widely used in BMS and related equipment control.
CITY MULTI is therefore compatible with large-scale BMS management via LONWORKS®.

One LM adapter unit can connect up to 50 groups/50 indoor units.
Using a single LONWORKS® adapter (LM-AP), up to 50 indoor units can be connected.



System configuration example

System design is made simple through the integration of various devices into a total control configuration.



LONWORKS®
The building management system is connected to the CITY MULTI air conditioning system using LONWORKS®, which is widely used in field networks, facilitating an open network and construction savings.

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

• LONWORKS® INTERFACE

FUNCTION	CONTENT
Control	
ON/OFF	ON/OFF
Mode Operation	Cool/Dry/Heat/Auto/Fan
Set point Adjustment	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.
Fan Speed Control	High/Mid-1/Mid-2/Low
Permit/Prohibit	ON/OFF, Mode, Set point
Emergency Stop	-
Monitoring	
ON/OFF	ON/OFF
Mode	Cool/Dry/Heat/Auto/Fan
Set point	Changes the set temperature. * Set temperature range varies depending on the indoor unit model.
Fan Speed	High/Mid-1/Mid-2/Low
Permit/Prohibit	ON/OFF, Mode, Set point
Alarm State	Normal/Error
Room Temperature	14°F-122°F/10°C-50°C
Thermo ON/OFF	ON/OFF

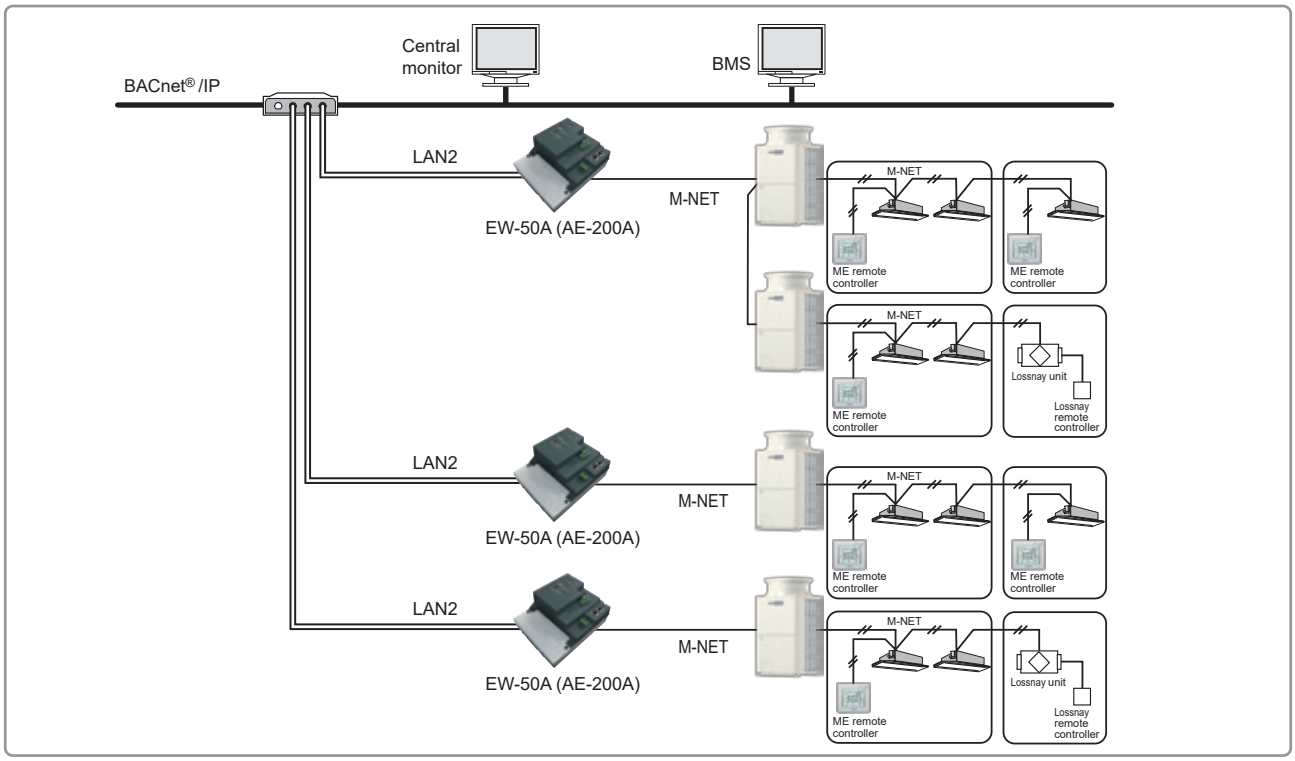
BACnet®

CITY MULTI can be easily combined with a Building Management System (BMS) via EW-50A (AE-200A). BACnet® is an open transmission protocol widely used in BMS and related equipment control. CITY MULTI is compatible with large-scale BMS management via BACnet®.

EW-50A (AE-200A) can control up to 50 units/groups (including Lossnay).

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

• System example



• BACnet® and M-NET adapter

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

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

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

Optional parts

• For CONTROL

Model	Description
PAC-SE41TS-E	Remote Sensor
PAC-SE55RA-E	Remote ON/OFF adaptor for Indoor Unit
PAC-SA88HA-EP	Remote Display Adaptor for Indoor Unit
PAC-SC37SA-E	Output signal connector for Outdoor Unit
PAC-SC36NA-E	Input signal connector
PAC-SF46EPA-G	Transmission booster
PAC-YT51HAA-J	External input/output adapter for TC-24B
PAC-YG10HA	External input/output adapter for AE-200A

Model	Description
PAC-YG82TB	Mounting attachment for AE-200A wall-mount installations
PAC-YG84UTB	Electrical box for AE-200A wall-embed installations
PAC-YG86TK	Mounting kit for AE-200A wall-mount installations
PAC-YG72CWL	Surface cover with USB port for AE-200A
PAC-SC51KUA	Power supply unit for TC-24B

Installation Information

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

1. General precautions

1-1. Usage

♦The air-conditioning system described in this catalogue is designed for human comfort.

♦This product is not designed to assist in the preservation of food, provide conditions to maintain plants or animals, or stabilize environments for the preservation of precision equipment or art objects. To prevent loss of quality, do not use the product for purposes other than those it is designed for.

♦To reduce the risk of water leakage and electric shock, do not use the product for air-conditioning vehicles or vessels.

1-2. Installation environment

♦Do not install any unit other than the dedicated unit in an area where the voltage changes significantly, large amounts of mineral oil (e.g., cutting oil) are present, cooking oil may splash, or a large quantity of steam can be generated, such as a kitchen.

♦Do not install the unit in acidic or alkaline environments.

♦Installation should not be performed in locations exposed to chlorine or other corrosive gases. Avoid installation near sewers.

♦To reduce the risk of fire, do not install the unit in an area where flammable gas may leak or flammable material is present.

♦This air-conditioning unit has a built-in microcomputer. The effects of noise should be taken into consideration when deciding on the installation position. It is recommended that the air-conditioning unit be installed in a position away from antennas or electronic devices.

♦Install the unit on a solid foundation in accordance with local safety measures against typhoons, wind gusts, and earthquakes to prevent the unit from being damaged, toppling over, or falling.

1-3. Backup system

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

1-4. Unit characteristics

♦The heat pump efficiency of the outdoor unit depends on the outdoor temperature. In heating mode, performance drops as the outside air temperature drops. In cold climates, performance can be poor. Warm air will continue to be trapped near the ceiling and the floor level will remain cold. In such cases, heat pumps require a supplemental heating system or air circulator. Before purchasing, consult your local distributor for assistance in selecting the unit and system.

♦When the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor/heat source unit side tends to collect frost, which reduces its heating performance. The Auto-defrost function will be activated in order to remove the frost, and the heating mode will temporarily stop for 3-10 minutes. Heating mode will automatically resume upon completion of the defrost process.

♦An air conditioner with a heat pump requires time to warm up the whole room after the heating operation begins, because the system circulates warm air in order to warm up the whole room.

♦Sound levels were obtained in an anechoic room. Sound levels during actual operation are usually higher than the simulated values due to ambient noise and echoes. Refer to the section on "SOUND LEVELS" in the DATA BOOK for the measurement location.

♦Depending on the operating conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes even when operating normally. Try to avoid positioning the air conditioner in locations where quietness is required.
With regard to the BC/HBC controller, it is recommended that the unit be installed in areas such as corridor ceilings, restrooms and plant rooms.
♦The total capacity of the connected indoor units can be greater than the capacity of the outdoor/heat source unit.
However, when the connected indoor units operate simultaneously, each unit's capacity may become smaller than the rated capacity.
♦When the unit is started up for the first time within 12 hours after the power comes on, i.e. after a power failure, it performs initial startup operation (capacity control operation) to prevent damage to the compressor. The initial startup operation requires a maximum of 90 minutes to complete, depending on the operating load.

1-5. Related equipment

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

1-6. Unit installation

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

1-7. Optional accessories

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

1-8. Operation/Maintenance

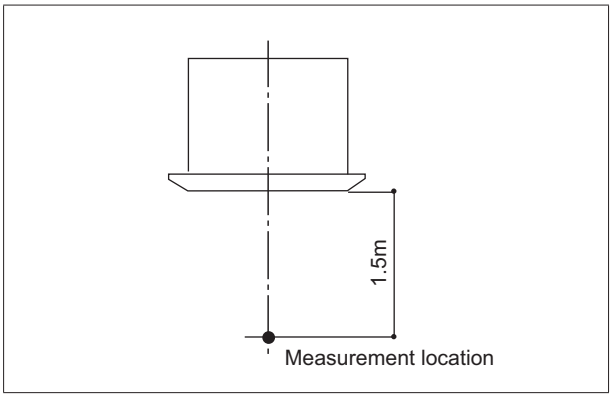
♦Read the Instruction Book that is provided with each unit carefully prior to use.
♦Maintenance or cleaning of each unit may be risky and require expertise. Read the Instruction Book to ensure safety. Consult your local distributor or a qualified technician when special expertise is required, such as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

1-9. Noise level (Sound pressure level)

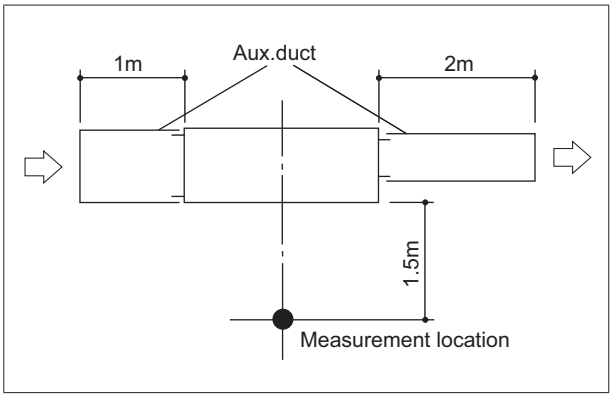
♦The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the value indicated in this catalogue due to the influence of ambient noise and echoes.

<Measurement location>

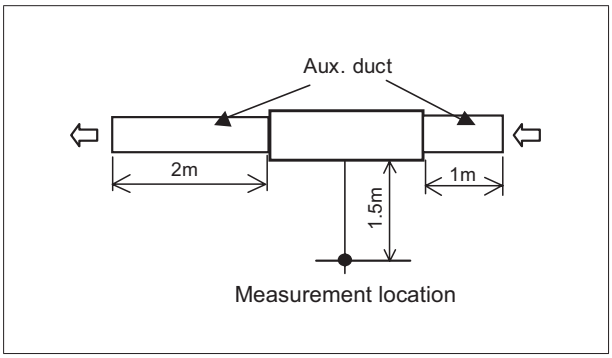
■PLFY-P-VEM-PA, PLFY-P-VFM-E1, PLFY-P-VLMD-E, PMFY-P-VBM-E



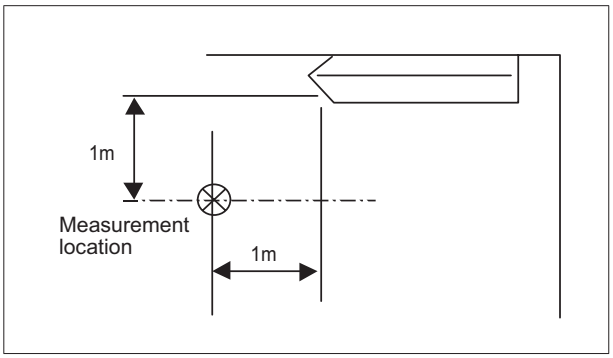
■PEFY-P-VMS1-E, PEFY-P-VMH-E



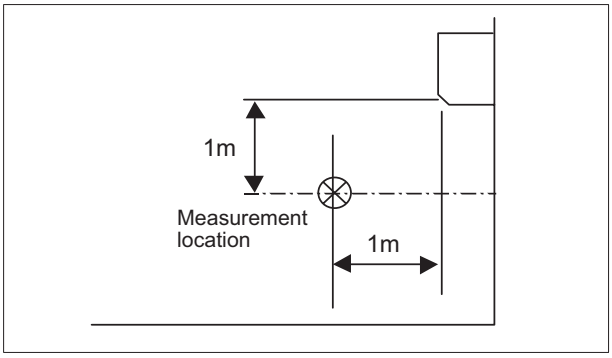
■PEFY-P-VMA3-E, PEFY-P-VMA-E1



■PCFY-P-VKM-E



■PKFY-P-VLM-E, PKFY-P VKM-E



2. Precautions for outdoor unit

2-1. Installation environment

♦The outdoor unit with the salt-resistant specification is recommended for use in an area in which it will be exposed to salt air.

♦Even when the unit with the salt-resistant specification is used, it is not completely protected against corrosion. Be sure to follow the directions or precautions described in the Instruction Book and Installation Manual for installation and maintenance. The salt-resistant specification is referred to in the guidelines published by JRAIA (JRA9002).

♦Install the unit in an area where the flow of discharge air is not obstructed. If the flow of discharge air is obstructed, short-cycling of discharge air may occur.

♦Provide proper drainage around the base of the units; condensation may collect and drip from outdoor units. Provide water-proofing protection to the floor when installing the unit on the rooftop.

♦In regions where snowfall can be expected, install the unit so that the outlet faces away from the direction of the wind, and install a snow guard to protect the unit from snow. Install the unit on a base approximately 50 cm higher than the expected snowfall. Close the openings for pipes and wiring, because the ingress of water and small animals may cause equipment damage. If a SUS snow guard is used, refer to the Installation Manual that comes with the snow guard and be careful with the installation to avoid the risk of corrosion.

♦When the unit is expected to operate continuously for a long period of time at outside air temperatures of below 0ºC, take appropriate measures, such as the use of a unit base heater, to prevent ice forming on the unit base. (Not applicable to the PUMY-Series)

♦Install the snow guard so that the outlet/inlet faces away from the direction of the wind.

♦When approximately 50 cm or more of snow accumulates on the snow guard, remove the snow from the guard. Install a roof that is strong enough to withstand loads caused by snow in areas where snow accumulates.

♦Provide proper protection around the outdoor units in places such as schools to avoid the risk of injury.

♦The salt-resistant unit is resistant to salt corrosion, but not salt-proof.

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

1. Install the salt-resistant unit in an area in which it is not directly exposed to sea breezes, and minimize exposure to salt water mist.
2. Avoid installing a sun shade over the outdoor unit, so that rain will wash away salt deposits off the unit.
3. Install the unit horizontally to ensure proper water drainage from the base of the unit. Accumulation of water in the base of the outdoor unit will significantly accelerate corrosion.
4. Periodically wash salt deposits off the unit, especially when the unit is installed in a coastal area.
5. Repair all noticeable scratches after installation and during maintenance.
6. Periodically check the unit, and apply an anti-rust agent and replace corroded parts as necessary.

2-2. Unit characteristics

♦When the Thermo ON and OFF is frequently repeated on the indoor unit, the operating status of units may become unstable.

2-3. Related equipment

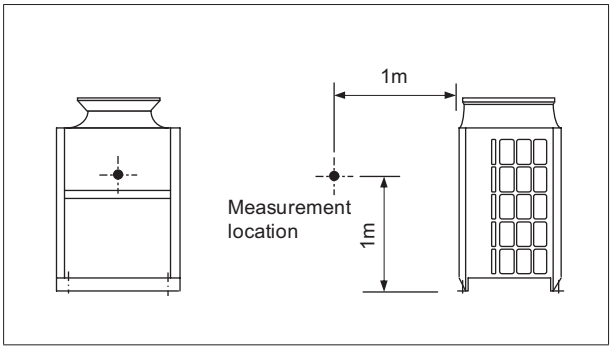
♦Provide grounding in accordance with the local regulations.

2-4. Noise level (Sound pressure level)

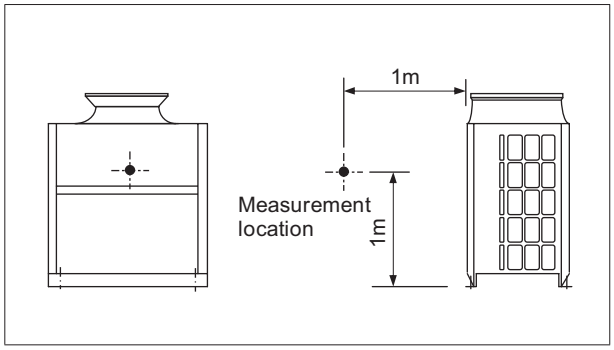
♦The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the indicated value in this catalogue due to the influence of ambient noise and echoes.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

<Measurement location>

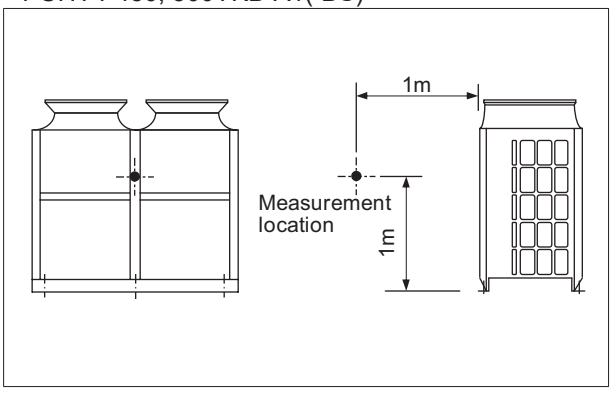
■PUHY-P200, 250, 300TKA(-BS),
PUHY-P200, 250YKB-A1(-BS)



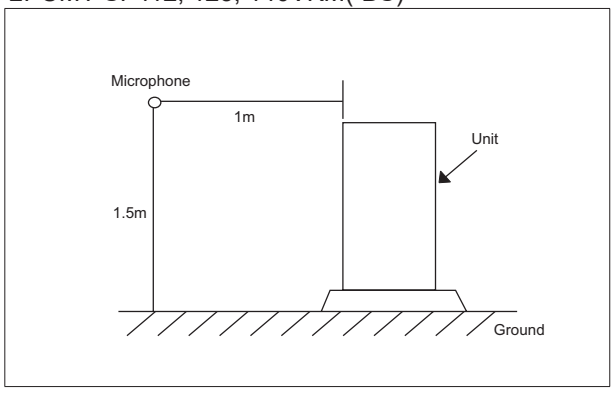
■PUHY-P350, 400, 450TKA(-BS),
PUHY-P300, 350, 400YKB-A1(-BS)



■PUHY-P500TKA(-BS),
PUHY-P450, 500YKB-A1(-BS)



■PUMY-SP112, 125, 140VKM(-BS)



3. Precautions for control-related items

3-1. Product specification

♦To introduce the MELANS system, a consultation with us is required in advance. Especially to introduce the electricity charge-apportioning function or energy save function, further detailed consultation is required. Consult your local distributor for details.

♦Billing calculation for AE-200A/AE-50A/EW-50A, or the billing calculation unit is unique and based on our original method. (Backup operation is included.) It is not based on the metering method, and do not use it for official business purposes. It is not the method that the amount of electric power consumption (input) by air conditioner is calculated. Note that the electric power consumption by air conditioner is apportioned by using the ratio corresponding to the operation status (output) for each air conditioner (indoor unit) in this method.

♦In the apportioned billing function for AE-200A/AE-50A and EW-50A, separate watt-hour meters should be used for A-control units, K-control units, and CITY MULTI packaged air conditioners. It is recommended that an individual watt-hour meter should be used for large-capacity indoor units (with two or more addresses).

♦When using the peak cut function on the AE-200A/AE-50A or EW-50A, note that the control is performed once every minute and it takes time to obtain the effect of the control. Take appropriate measures such as lowering the criterion value. Power consumption may exceed the limits if the AE-200A/AE-50A or EW-50A malfunctions or stops. Provide a back-up remedy as necessary.

♦The controllers cannot operate while the indoor unit is OFF. (No error)
Turn ON the power to the indoor unit when operating the controllers.

♦When using the interlocked control function on the AE-200A/AE-50A/EW-50A/PAC-YG66DCA or PAC-YG63MCA, do not use the control for fire prevention or security. (This function should never be used in a way that would put people's lives at risk.) Employ any methods or circuits that allow ON/OFF operation using an external switch in case of failure.

3-2. Installation environment

♦Surge protection may be required for the transmission line in areas where lightning strikes occur frequently.

♦The receiver for a wireless remote controller may not work properly due to the effect of general lighting. Leave a space of at least 1 m between the general lighting and the receiver.

♦When the auto-elevating panel is used and the system is operated using a wired remote controller, install the wired remote controller in a place where all the air conditioners being controlled (at least the bottom part of them) can be seen from the wired remote controller. If not, the descending panel may cause damage or injury; be sure to use a wireless remote controller designed for use with the elevating panel (sold separately).

♦Install the wired remote controller (switch box) in a place where the following conditions are met.

♦Where the installation surface is flat

♦Where the remote controller can detect an accurate room temperature

The temperature sensors that detect the room temperature are installed both in the remote controller and in the indoor unit.

When the room temperature is detected using the sensor in the remote controller, the main remote controller is used to detect the room temperature. In this case, follow the instructions below.

♦Install the controller in a place where it is not affected by a heat source.
(If the remote controller faces direct sunlight or the direction of the supply air flow, the remote controller cannot detect the accurate room temperature.)

♦Install the controller in a place where the average room temperature can be detected.

♦Install the controller in a place where no other wires are present around the temperature sensor.
(If other wires are present, the remote controller cannot detect an accurate room temperature.)

♦To prevent unauthorized access, always use a security device such as a VPN router when connecting the AE-200A/AE-50A or EW-50A to the Internet.

Maintenance Equipment

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

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

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

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

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

Table 1. Maintenance cycle

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

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

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

Replacement cycle for consumable components
[Note that replacement cycle does not mean guarantee period.]

Table 2. Replacement cycle

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

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

for a greener tomorrow

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

⚠Warning

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

■Our air conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R410A.

MITSUBISHI ELECTRIC CORPORATION

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