



#### AIR CONDITIONING SYSTEMS



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

#### Our Latest Technologies

#### VRF system

VRF stands for Variable Refrigerant Flow.

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

#### nverter driven technology

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

# ntelligent Power Module (IPM) technology

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

#### R 410A refrigerant

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

# Unsurpassed air conditioning from Mitsubishi Electric

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

#### **Contents** Features of Mitsubishi Electric Page 2-13 air conditioners **Outdoor Unit** Page 15-61 Indoor Unit Page 63-103 Remote Controller Page 104-127 **Optional Parts** Page 130-132 Installation Information Page 133-138 Maintenance Equipment Page 139

## The New Cooling-only/Heat pump Models

Mitsubishi Electric offers a wide lineup of new cooling-only/heat pump models with the maximum capacity of 60 HP\*. Different patterns of combinations of basic modules provide either standard or high COP.

\*Applicable to standard model combinations only

#### New features

Single module up 20 HP

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



Compatibility to outdoor temperature of up to 52°C \*1

Capable of running cooling operations in the outdoor temperature of up to 52°C\*.

\*Compared to 46°C of the older model

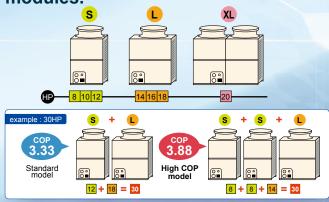
: 52°C All modules feature inverter-driven compressors. **Maximum combined** horse power: 60 HP

Increase in the limit of piping length

Farthest indoor from first branch: 90 m. Height difference between indoor and indoor units is up to 30 m.



Standard or high COP options are available by different combinations of modules.





- Any continuous operation over 46°C may require an increased frequency of maintenance. When the height difference is 15m or greater, use the one size larger liquid pipe between the indoor unit and the indoor unit. When the piping length is 40m or longer, use the one size larger liquid pipe between the indoor unit and the first branch.

#### Energy saving

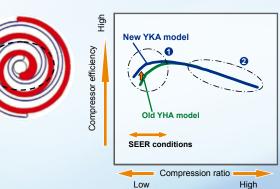
#### Compressor

- Improved efficiency by the use of DC brushless motor.
- •Improved partial-load characteristics achieved by the optimized scroll shape.



#### Improved SEER performance

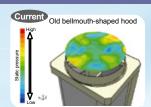
Optimized scroll shape (improved volumetric capacity ratio)

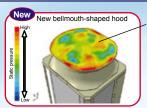


•Reduced standby power consumption by heating the compressor instead of a crankcase heater.

#### Unit casing

 Improved static pressure at the exhaust air outlet that allows for a reduction in fan input power by the changed shape of the bellmouth hood.



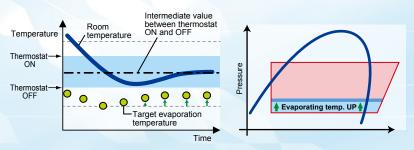


The new bellmouth-shaped hood achieves reduction in fan rotation and increases the pressure at the hood outlet compared to that of the old one, resulting in reduced input power to the fan.

#### Control

#### •ET control (Evaporating Temperature control)

Reduced energy consumption in cooling by controlling the refrigerant temperature according to the operation load and raising evaporating temperature.



#### **Current control method**

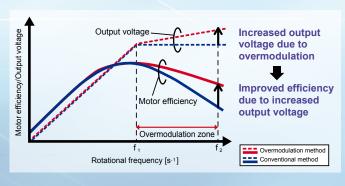
Evaporating temperature was kept constant.

#### New control method

Evaporating temperature is raised according to the operation load, decreasing compressor input power and increasing operation efficiency.

#### Original PWM overmodulation control

Improved total efficiency of motor and inverter with the use of our original PWM overmodulation control, increasing the output voltage during high-load operation (when the motor is rotating at high speed).







# Sophisticated Yet Simple Technology

#### Reliable

Designed and manufactured to the highest standards, the CITY MULTI range offers one of the most reliable air conditioning systems available. Simple to install and easy to maintain, this range provides ideal solutions you can trust to protect your investment.





PFFY-VKM

>All the CITY MULTI outdoor units are made under stringent control.

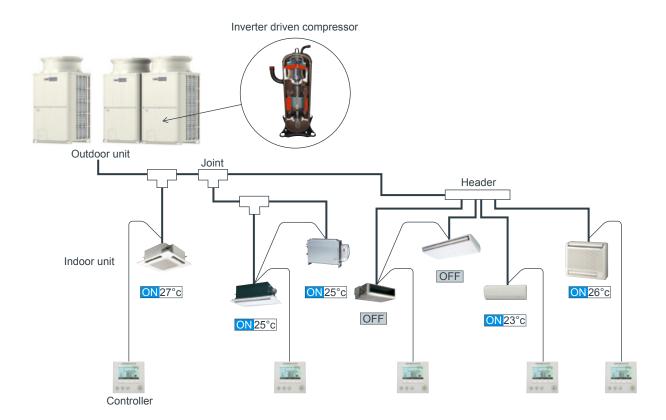
PEFY-VMR

# RF System

#### Our Answer to VRF

Mitsubishi Electric sets the boundaries of VRF technology with the CITY MULTI range, which is available using R410A refrigerant with zero ODP (Ozone Depletion Potential). The range has been specifically designed for today's building requirements and addresses key market issues such as energy efficiency, adaptability and reliability. With user friendly control systems utilizing internet technology and integrated cooling and ventilation indoor units, CITY MULTI is the benchmark and market leader in VRF technology.

VRF is a multi and direct expansion type air conditioning system where by one outdoor unit can be connected with multiples indoor units. The amount of refrigerant can be regulated freely according to the load on the indoor unit by the inverter driven compressor in the outdoor unit. Zoning in a small office is possible with a small capacity indoor unit. Energy conservation is easily handled because individual indoor units can stop and start their operation as needed. There are various indoor units available in order to suit various interior design needs.

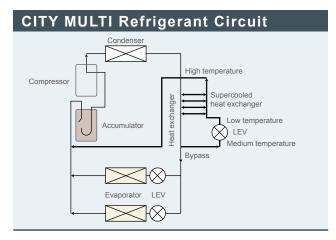


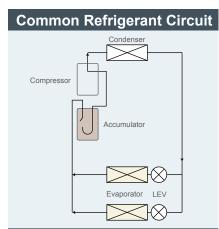


# Unbeatable Efficiency

#### **Heat Interchange Circuit**

The unique Heat Interchange Circuit (HIC) enhances efficiency by providing additional sub-cooling and allows the expansion device to effectively control the refrigerant distribution, thereby increasing the operating efficiency and reducing the volume of refrigerant in each system.





#### nverter Driven Compressor Technology





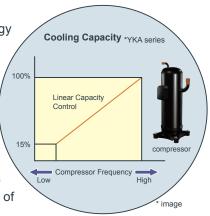
# Using inverter driven technology saves energy for several reasons:

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

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

The fixed speed system can only operate at 100%, however, partial load conditions prevail for the majority of the time. Therefore fixed speed systems cannot match the annual efficiencies of inverter driven systems.

Using proven single inverter driven compressor technology, the CITY MULTI range is favored by the industry for low starting currents (only 8 amps for a 16HP YKA outdoor unit), and smooth transition across the range of compressor frequencies.



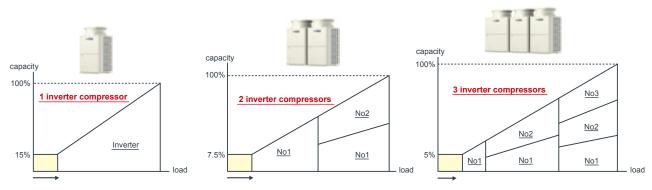
\* The values vary depending on the actual conditions such as ambient temperature.

#### All CITY MULTI compressors are inverter-driven type.

#### -Capable of precisely matching a building's cooling and heating demands.

The outdoor unit combinations comprise 1 unit for 8-20HP systems, 2 units for 22-40HP systems and 3 units for 42-60HP systems. Each unit carries one inverter compressor making simple and highly reliable control possible. Not only does it allow low starting currents, the inverter-driven compressor also provides precise indoor comfort and adapts to the air conditioning load.

#### Stable and Smooth Operation (for standard models)





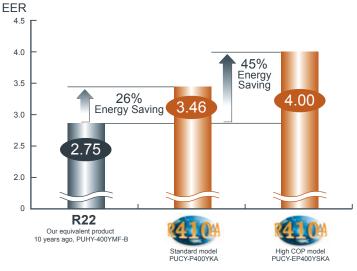






# Total Energy Conservation

#### Comparison of EER (Energy Efficiency Ratio) – 16HP system



High EER is realized

<sup>\*</sup> The values were obtained under the standard conditions.

# Intelligent Power Module (IPM) Technology

The YKA range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology, it is possible to closely match the building requirements and to achieve more accurate control of the occupied space. By using incremental 1Hz steps of capacity control, the amount of required power input is significantly reduced, resulting in greatly improved EER's.

In addition, IPM technology ensures effective performance under partial load conditions, a condition that most systems will be in for the majority of the normal working life cycle. By taking account the efficiency at both part load, and peak load conditions, R410A CITY MULTI is designed to provide unbeatable year round/seasonal efficiency.

# The Difference between YKA and Previous Mitsubishi Electric Models

Technology is a key when increased efficiency is demanded. The CITY MULTI YKA range is able to deliver this in simple ways.

A highly efficient R410A scroll compressor design results in less friction losses at the motor. A simplified refrigerant circuit (low pressure loss) including a new accumulator design also adds a few more points to the efficiency scale. Enhancements to the heat interchange circuit, an inverter driven fan motor and a heat exchanger design again add vital increases to overall system efficiencies and EERs.

#### The Importance of EER

EER stands for "Energy Efficiency Ratio". It is a measure of the useful energy a system can deliver compared to the energy it consumes. It is calculated by dividing the energy output by the energy input of a system. The higher the figure then the more efficient the system is deemed to be. Mitsubishi Electric VRF models, the world's highest energy-efficient air-conditioners, will undoubtedly reduce millions of tons of CO<sub>2</sub> emissions.





# For the Environment

Enhancing Environmental Care (measures for the RoHS Directive and the refrigerant reduction)

Every unit is in compliance with the RoHS Directive,\* which stands for the Restriction of Hazardous Substances:

Lead-free soldering is used to avoid Lead Groundwater Contamination on the print board. The amount of refrigerant on the unit has also been reduced to enhance environmental care.

<sup>\*</sup> RoHS Directive: the restriction of the use of certain hazardous substances in electrical and electronic equipment that has been sold in EU since July 2006

# fficient R410A Refrigerant



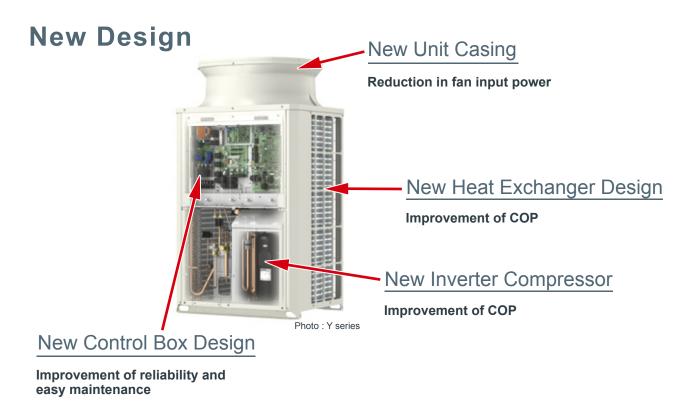
#### **History of Refrigerant**

R22, an HCFC-based refrigerant, has been a popular choice for most chillers. R22 has been targeted by the Montreal Protocol to be phased out in new equipment. Additionally, governments in many countries are enforcing a ban of HCFC-based refrigerants for new installations.

Because of these restrictions, R410A refrigerants are desirable. R410A is a blend of HFCs, which do not deplete the ozone.

#### **Technical Aspects of Refrigerant**

R410A is a more efficient refrigerant as it has a higher specific heat capacity when compared to R407C or R22. This higher energy carrying capacity allows for smaller pipe sizes, longer pipe runs and reduces the volume of refrigerant within a system. This is a major factor when concerning safety and environmental requirements in the design, manufacture, installation, operation, maintenance and disposal or refrigerating systems.







# O utdoor Unit

- Cooling-only Series (Y), High COP (Y)
- Heat Pump Series (S)
- Heat Pump Series (Y), High COP (Y)

# Wide Selection of Outdoor Units

			HP		4.5	5	6	7	8	9	10	12	14	16	18	
System	Type	Model name	Mode		P112	P125	P140	P175	P200	P225	P250	P300	P350	P400	P450	
		Y series Page 25 - PUCY-P YKA(-BS) PUCY-P YSKA(-BS)	Page35	S					8		10	12				
				L									14	16	18	
	Cooling		*1	XL	1											
	only	Y series - High COP Page 36 - PUCY-EP YSKA(-BS)		S										8	8 10	
				L											 	
				XL	     											
		PUMY-P VKM(-BS) PUMY-P YKM(-BS)	Page42 - Page	<u>:</u> 44												
			0		4.5	5	6	7	8	9						
			0													
		PUHY-P YKA(-BS) PUHY-P YSKA(-BS)	Page55	S					8		10	12				
Air Cooled		Y series - High COP Page 56 - Pa PUHY-EP YSKA(-BS)		L									14	16	18	
				XL	1											
				S										8	10	
	Heat Pump			L												,
			*1	XL	1											
		Y series - High COP PUHY-EP YJM-A(-BS PUHY-EP YSJM-A(-B	) S)	S					8					8	8	
		9 9 9		L			 				10				10	
				XL								12				
		Y series - High COP PUHY-EP YSJM-A1(-I	BS)	S			 									
		9 8 9		L												,
				XL												

<sup>\*1.</sup> Indicates S, L, XL modules 
\*2. The circled numbers in the table indicate the horse power, and the combination of S, L, and XL modules.

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	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
	P500	P550	P600	P650	P700	P750	P800	P850	P900	P950	P1000	P1050	P1100	P1150	P1200	P1250	P1300	P1350	P1400	P1450	P1500
		10 12	10	10	10	12						12 12	12							NEW	
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# Wide Selection of Outdoor Units HP 8 10

			HP	8	10	12	14	
System	Type	Model name	Model	P200	P250	P300	P350	
		R2 series PURY-P YJM-A(-BS)	S	8	10	12	 	 
		PURY-P YSJM-À(-BS)	L		 	1 1 1 1 1	14	
			XL		†	*		
		R2 series PURY-P YSJM-A1(-BS)	s		i !			! !
			L 		 	 	 	 
Air	Heat		*1 XL		! ! !	 		 
Cooled	Recovery	R2 series - High COP PURY-EP YJM-A(-BS)	S	8	i ! ! ! !	i ! ! ! !	 	 
		PURY-EP YSJM-A(-BS)	L		10	12	i   	 
			XL		1	 	14	
		R2 series - High COP PURY-EP YSJM-A1(-BS)	S		: 	: 		  -  -
			L		! ! ! !	! ! ! ! !	 	  -  - 
			XL		 	 		 
Water	Heat Pump	PQHY-P YHM-A PQHY-P YSHM-A		8	10	12		
Cooled	Heat Recovery	PQRY-P YHM-A PQRY-P YSHM-A		8	10	12		
Air	Heat Pump	PUHY-RP YJM-B PUHY-RP YSJM-B	S	8	10	12	14	
Cooled	Heat Recovery	PURY-RP YJM-B PURY-RP YSJM-B	L	8	10	12		

<sup>\*1.</sup> Indicates S, L, XL modules 
\*2. The circled numbers in the table indicate the horse power, and the combination of S, L, and XL modules.

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

# Advanced Energy-saving Technologies



S series | PUMY-P VKM | PUMY-P YKM

#### Highly efficient fan and grille for outdoor unit

The shapes of the fan and grille of the outdoor unit have been redesigned, realising an increase in blowing capacity and more efficient heat exchange while maintaining the same operating noise level.

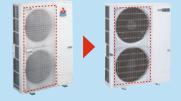
#### Outdoor unit fan opening increased

The diameter of the opening for the fan in the outdoor unit has been increased from 490 to 550mm. Blowing capacity has been increased while maintaining the same fan rotation speed.

# Opening increased from 490 to 550mm in diameter

#### Grille shape changed

The shape of the air outlet grille has been changed to reduce pressure loss. This has helped to improve heat exchange performance.



PUMY-P V/YHMB PUMY-P V/Y

#### Inflexed fan

Adoption of a fan with improved ventilation characteristics and a newly designed rear edge that suppresses wind turbulence raises fan operation efficiency.



#### Highly efficient heat exchanger

A high density and increase in surface area have improved the heat-exchange efficiency of the heat exchanger.

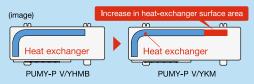
#### High-density heat exchanger

The pipe diameter has been changed from 9.52 to 7.94mm, resulting in a high-density heat exchanger.

#### Heat-exchange surface area increased

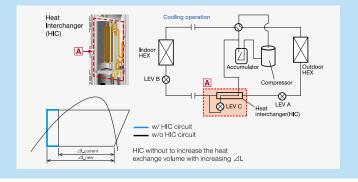
Heat exchanger size extended horizontally, increasing the surface area.

### 2 lines, 52 columns 2 lines, 64 columns



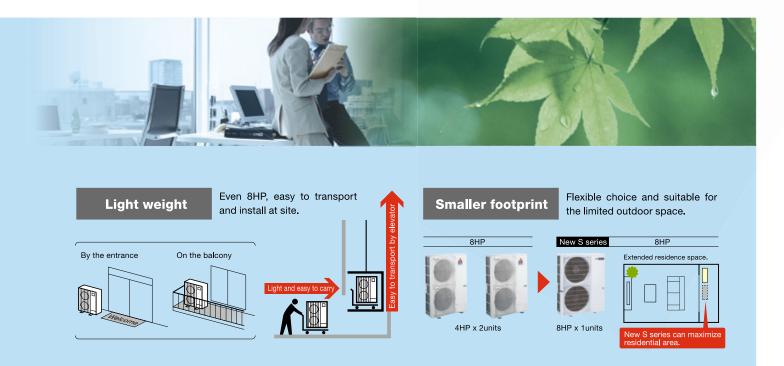
#### Heat Interchanger (HIC) Added

A HIC circuit has been added to improve energy efficiency during cooling operation. Liquid refrigerant is rerouted, transformed into a gas state and injected back into the system to increase overall pressure of the refrigerant being sent to the compressor, thereby reducing the load on the compressor and raising efficiency.





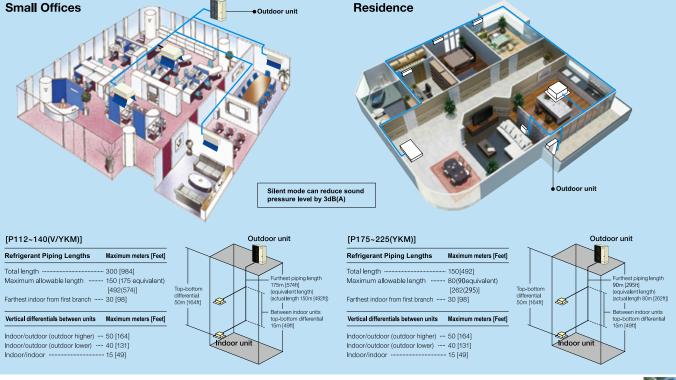
Outdoor Unit



# The two-pipe zoned system designed for Heat Pump Operation

The CITY MULTI S series (for small applications) make 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 to use energy effectively.

With a wide range of indoor unit line-up in connection with a flexible piping system, the CITY MULTI series can be configured for all applications. Up to 12 (S series) indoor units can be connected with up to 130% connected capacity to maximize engineer's design options. This feature allows easy air conditioning in each area with convenient individual controllers.



#### Y (Cooling-only/Heat Pump) series

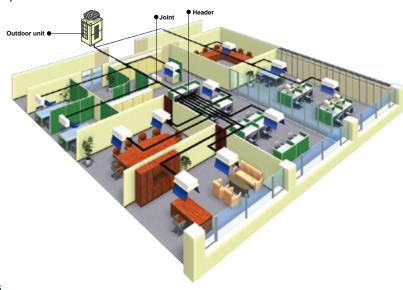


**PUCY-EP YSKA(-BS) PUCY-P YKA(-BS)** -PUCY-P YSKA(-BS) Y series **PUHY-EP YSKA(-BS) PUHY-P YSKA(-BS)** 

#### The 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 R410A refrigerant and an INVERTER-driven compressor to use energy effectively. With a wide line-up of indoor units in connection with a flexible piping system, the CITY MULTI series can be configured for all applications. Up to 50 (Y series) indoor units can be connected with up to 130% connected capacity to maximize engineer's design options. This feature allows easy air conditioning in each area with convenient individual controllers.

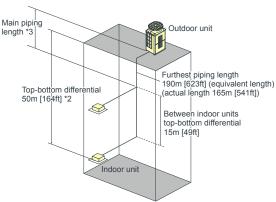
#### Large Offices (Y series)



#### **System Pipe Lengths**

[8-60HP (Cooling-only Y series)] [16-44HP (Cooling-only High COP Y series)] [8-60HP (Y series)] [16-44HP (High COP Y series)]

Refrigerant Piping Lengths	Maximum meters [Feet]
Total length·····	1,000 [3,280]*1
Maximum allowable length	165 (190 equivalent) [541(623)]
Farthest indoor from first branch	40 [131]*2
Main piping length · · · · · · · · · · · · · · · · · · ·	·*3
Vertical differentials between units	Maximum meters [Feet]
Indoor/outdoor (outdoor higher)	. 50 [164]*4
Indoor/outdoor (outdoor lower)	40 [131]*4, *5
Indoor/indoor · · · · · · · · · · · · · · · · · ·	· 15 [49]*6



- \*1 The maximum total piping length in the system with the P1400 through P1500 model units is 800 meters.

  \*2 90m is available. When the piping length is 40m or longer, use the one size larger liquid pipe between the indoor unit and the first branch. [for PUCY-P-Y(S)KA(-BS)/PUCY-EP-YSKA(-BS)]

  \*3 In the system with the P1400 through P1500 model units, pipe length restrictions apply to the main pipes as follows.

P1400: 110 m max. P1450: 90 m max. P1500: 60 m max

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

  \*\*S 4m or less in cooling at outdoor temperature 10°C or lower for PUHY-P-YHA (-BS) only.

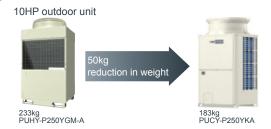
  \*S 30m is available. When the height difference is 15m or greater, use the one size larger liquid pipe between the indoor unit and the indoor unit. [for PUCY-P-Y(S)KA(-BS)/PUCY-EP-YSKA(-BS)]



#### Features in Y (Cooling-only/Heat Pump) series

#### **Compact Design Industry Leading Weight Saving**

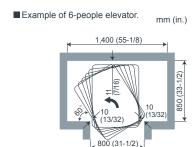
The manageability of the outdoor unit has been improved due to a drastic reduction in its weight, leading to easy transportation, installation, and reduction in withstand load.



#### **Industry Leading Space Saving**

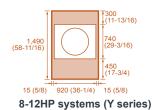
The downsized outdoor unit can be transported through a 800 mm wide door.



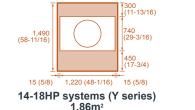


#### **Effective Use of Space**

The new models have a smaller foot print and service space requirement than previous models.



1.42m<sup>2</sup>



mm (in.)

18HP (Yseries)

mm (in.) **Conventional CITY MULTI (YGM series) CITY MULTIR410A** 450 (17-3/4) 840 (33-1/8) 1,740 (68-9/16) 1,490 (58-11/16) 450 (17-3/4) 1,990 (78-3/8) 15 (5/8) 1,220 (48-1/16) --15 (5/8) 3.46m<sup>2</sup> 1.86m<sup>2</sup>



#### Low Noise Levels New Fan Design

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

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



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

#### R410A Pipe Sizing

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



Based on 10HP model

#### **Blue Fin Treatment**

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

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



#### **Easy Maintenance**

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

- \* Not applicable to all situations.
- \* Be sure to turn off the power to the indoor unit when repairing or servicing the unit.



#### System Check

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

## 60Pa High Static Pressure as standard

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



# OUTDOOR UNIT Y Series - Cooling-only PUCY-P YKA(-BS)





Model			PUCY-P200YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P350YKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity	*1	kW	22.4	28.0	33.5	40.0
(Nominal)		kcal/h	20,000	25,000	30,000	35,000
	*1	BTU / h	76,400	95,500	114,300	136,500
	Power input	kW	5.59	7.08	8.95	10.78
	Current input	Α	9.4-8.9-8.6	11.9-11.3-10.9	15.1-14.3-13.8	18.1-17.2-16.6
	EER	kW / kW	4.00	3.95	3.74	3.71
Cooling capacity	*3	kW	22.7	28.4	34.0	40.6
Temp. range of	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)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity			
connectable	Model / Quantity		P15~P250/1~17	P15~P250/1~21	P15~P250/1~26	P15~P250/1~30
Sound pressure le (measured in aned		dB <a></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			
	Air flow rate	m³/min	175	175	175	175
FAN TI Ai  CA  Market  CA  Market  CA  Market  CA  Market  CA  SI  Market  CA  CA  CA  Market  CA  CA  CA  CA  CA  Market  CA  CA  CA  CA  CA  CA  CA  CA  CA  C		L/s	2,917	2,917	2,917	2,917
*2		cfm	6,179	6,179	6,179	6,179
	Control, Driving me	chanism	Inverter-control, Direct-driven by motor			
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pre	ess.	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		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 1="" 5y="" 8="" or="" similar=""></munsell>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <munsell 1="" 5y="" 8="" or="" similar=""></munsell>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <munsell 1="" 5y="" 8="" or="" similar=""></munsell>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <munsell 1="" 5y="" 8="" or="" similar=""></munsell>
External dimension	n HxWxD	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 pro	otection	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			
Refrigerant	Type x original ch	arge	R410A x 5.5 kg (13 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)
Net weight	<u> </u>	kg (lbs)	174 (384)	183 (404)	201 (444)	237 (523)
Heat exchanger			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

140minar cooling co	nations (subject to the boot	02)		
	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.)

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

# OUTDOOR UNIT Y Series - Cooling-only PUCY-P YKA(-BS)





Power source	F) °F)
Nominal   Nomi	°F)
Power input	°F)
Power input	°F)
Current input	°F)
EER	°F)
Cooling capacity   *3 kW	°F)
Temp. range of cooling	°F)
cooling         Outdoor         D.B.         10.0~52.0°C (50~126°F)         10.0~52.0°C (50~126°F)         10.0~52.0°C (50~126°F)           Indoor unit         Total capacity         50~130% of outdoor unit capacity         50~130% of outdoor unit capacity         50~130% of outdoor unit capacity           Sound pressure level (measured in anechoic room)         dB <a>         63         63         63           Refrigerant piping diameter         Liquid pipe mm (in.)         12.7 (1/2) Brazed         15.88 (5/8) Brazed         15.88 (5/8) Brazed           FAN         Type x Quantity         Propeller fan x 1         Propeller fan x 1         Propeller fan x 1           Air flow rate         m³/min m³/min         175         175         320           L/s         2,917         2,917         5,333           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</a>	°F)
Indoor unit   Total capacity   Model / Quantity   P15~P250/1~34   P15~P250/1~39   P15~P250/1~43	
connectable         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 (as pipe mm (in.))         12.7 (1/2) Brazed         15.88 (5/8) Brazed         15.88 (5/8) Brazed           FAN         Type x Quantity         Propeller fan x 1         Propeller fan x 1         Propeller fan x 1           FAN         Type x Quantity         Propeller fan x 1         Propeller fan x 1         Propeller fan x 2           Air flow rate         m³/min (175) (2,917) (2,917) (2,917) (3,33) (2,917) (5,333) (2,917) (5,179) (6,179) (11,299) (2,179) (2,179) (11,299) (2,179) (</a>	apacity
Sound pressure level (measured in anechoic room)   dB <a>   63   65     Refrigerant piping   Liquid pipe   mm (in.)   12.7 (1/2) Brazed   15.88 (5/8) Braz</a>	
(measured in anechoic room)	
diameter         Gas pipe         mm (in.)         28.58 (1-1/8) Brazed         28.58 (	
diameter         Gas pipe         mm (in.)         28.58 (1-1/8) Brazed         28.58 (	
Air flow rate         m³/min         175         175         320           L/s         2,917         2,917         5,333           cfm         6,179         6,179         11,299           Control, Driving mechanism         Inverter-control, Direct-driven by motor         Inverter-control, Direct-driven by motor         Inverter-control, Direct-driven by motor	i
Air flow rate         m³/min         175         175         320           L/s         2,917         2,917         5,333           cfm         6,179         6,179         11,299           Control, Driving mechanism         Inverter-control, Direct-driven by motor         Inverter-control, Direct-driven by motor         Inverter-control, Direct-driven by motor	
cfm 6,179 6,179 6,179 11,299  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	
Control, Driving mechanism   Inverter-control, Direct-driven by motor   Inverter-control, Direct-driven by motor   Inverter-control, Direct-driven by motor	
	by motor
*2 External static press. 0 Pa (0 mmH <sub>2</sub> O) 0 Pa (0 mmH <sub>2</sub> O) 0 Pa (0 mmH <sub>2</sub> O)	
Compressor Type x Quantity Inverter scroll hermetic compressor Inv	pressor
Starting method Inverter Inverter Inverter	
Motor output kW 10.8 12.4 14.3	
Case heater kW	
External finish Pre-coated galvanized steel sheets Pre-coated galvanized steel sheets (+powder coating for -BS type)	type)
<munsell 1="" 5y="" 8="" or="" similar=""> <munsell 1="" 5y="" 8="" or="" similar=""> <munsell 1="" 5y="" 8="" or="" similar=""></munsell></munsell></munsell>	
External dimension HxWxD 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 High pressure protection High pressure sensor, High pressure sensor, High pressure sensor,	
devices High pressure switch at 4.15 MPa (601 psi) High pressure switch at 4.15 MPa (601 psi) High pressure switch at 4.15 MPa (601 psi)	
Inverter circuit Over-heat protection, Over-heat protection, Over-heat protection	
(COMP./FAN) Over-current protection Over-current 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)	os)
Net weight         kg (lbs)         237 (523)         237 (523)         305 (673)	
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   Joint: CMY-Y102SS/LS-G2   Joint: CMY-Y102SS/LS-G2   Joint: CMY-Y102SS/LS-G2   J	
Header: CMY-Y104/108/1010-G Header: CMY-Y104/108/1010-G Header: CMY-Y104/108/10	Y-Y202S-G2

Northinal Cooling Col	iditions (subject to 313 Boot	3-2)		
	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.)

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

# OUTDOOR UNIT Y Series - Cooling-only PUCY-P YSKA(-BS)





#### ► Specifications

Model			PUCY-P550YSKA (-BS)	PUCY-P600YSKA (-BS)	PUCY-P650YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	61.5	68.0	72.0
(Nominal)		kcal/h	52,900	58,500	61,900
	*1	BTU / h	209,800	232,000	245,700
	Power input		15.97	17.79	19.67
	Current input	Α	26.9-25.6-24.6	30.0-28.5-27.4	33.2-31.5-30.4
EER		kW / kW	3.85	3.82	3.66
Cooling capacity	Cooling capacity *3		62.5	69.1	73.2
Temp. range of	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)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~47	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <a></a>	63	63	64.5
Refrigerant piping	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed

diameter	Ods pipc	1111111 (1111.)	20.30 (1-1	70) Diazcu	20.30 (1-1	70) Diazeu	20.50 (1-1	70) Diazeu	
Set Model									
Model			PUCY-P250YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P400YKA (-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	
C   M   *2   E	Air flow rate	m³/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	
	Control, Driving me			ect-driven by motor		ect-driven by motor	Inverter-control, Dir	ect-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O) 0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	Inverter scroll her	metic 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			nized steel sheets	Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			ng for -BS type)		ng for -BS type)	
				' 8/1 or similar>		' 8/1 or similar>		' 8/1 or similar>	
External dimension	n HxWxD	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	, ,	1,650 x 920 x 740	1,650 x 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	High pressure pr	otection		ure sensor,		ure sensor,	High pressure sensor,		
devices							High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit			protection,		protection,		protection,	
	(COMP./FAN)			nt protection		nt protection		nt protection	
Refrigerant	Type x original cl			R410A x 6.5 kg (15 lbs)		R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)	
Net weight		kg (lbs)	183 (404)	201 (444)	183 (404)	237 (523)	183 (404)	237 (523)	
Heat exchanger				s fin & copper tube		s fin & copper tube		s fin & copper tube	
Pipe between unit		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	
and distributor	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				it: CMY-Y100VBK3		it: CMY-Y100VBK3	Outdoor Twinning kit: CMY-Y100VBK3		
			Joint: CMY-Y1		Joint: CMY-Y		Joint: CMY-Y102SS/LS-G2,		
				202/302S-G2	-	202/302S-G2	CMY-Y202/302S-G2		
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	Header: CMY-Y104/108/1010-G		

•	torriiriai cooiirig cor	iditions (subject to the boot	02)		
		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.)

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

## **OUTDOOR UNIT** Y Series - Cooling-only PUCY-P YSKA(-BS)





#### ► Specifications

Model			PUCY-P700YSKA (-BS)	PUCY-P750YSKA (-BS)	PUCY-P800YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	76.0	81.5	88.0
(Nominal)		kcal/h	65,400	70,100	75,700
	*1	BTU / h	259,300	278,100	300,300
	Power input	kW	22.47	24.47	25.43
	Current input	Α	37.9-36.0-34.7	41.3-39.2-37.8	42.9-40.7-39.3
	EER	kW / kW	3.38	3.33	3.46
Cooling capacity	*3	kW	77.2	82.8	89.4
Temp. range of	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)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <a></a>	64.5	65.5	66
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model								
Model			PUCY-P250YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P400YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	chanism	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	Inverter scroll her	metic 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		Pre-coated galvanized steel sheets		Pre-coated galvanized steel sheets	
			(+powder coating for -BS type)		(+powder coating for -BS type)		(+powder coating for -BS type)	
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td colspan="2"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell>	' 8/1 or similar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	
External dimension	n HxWxD	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	High pressure pr	otection	High press	High pressure sensor,		High pressure sensor,	High pressure sensor,	
devices							High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat	protection,	Over-heat	protection.	Over-heat protection.	
	(COMP./FAN)			nt protection	Over-current protection		Over-current protection	
Refrigerant	Type x original ch	narge	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
Net weight		kg (lbs)	183 (404)	237 (523)	201 (444)	237 (523)	237 (523)	237 (523)
Heat exchanger			Salt-resistant cros	s fin & copper tube	Salt-resistant cros	s fin & copper tube	Salt-resistant cros	s fin & copper tube
Pipe between unit	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
and distributor	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 k	kit: CMY-Y200VBK2	Outdoor Twinning k	kit: CMY-Y200VBK2	Outdoor Twinning k	it: CMY-Y200VBK2
				102SS/LS-G2.	Joint: CMY-Y		Joint: CMY-Y	
				202/302S-G2		202/302S-G2		202/302S-G2
			Header: CMY-Y104/108/1010-G		Header: CMY-Y104/108/1010-G		Header: CMY-Y104/108/1010-G	

<sup>\*1</sup> Nominal cooling conditions (subject to JIS B8615-2)

	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.)

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

# OUTDOOR UNIT Y Series - Cooling-only PUCY-P YSKA(-BS)





Model			PUCY-P850YSKA (-BS)	PUCY-P900YSKA (-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz	
Cooling capacity	*1	kW	92.0	96.0	
(Nominal)		kcal/h	79,100	82,600	
	*1	BTU / h	313,900	327,600	
	Power input	kW	28.37	31.47	
	Current input	Α	47.8-45.4-43.8	53.1-50.4-48.6	
	EER	kW / kW	3.24	3.05	
Cooling capacity	*3	kW	93.5	97.6	
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50	
Sound pressure level (measured in anechoic room)		dB <a></a>	66	66	
Refrigerant piping	t piping Liquid pipe mm (in.)		19.05 (3/4) Brazed	19.05 (3/4) Brazed	
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	
Set Model					

Model			PUCY-P400YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	175	175	175	175	
		L/s	2,917	2,917	2,917	2,917	
		cfm	6,179	6,179	6,179	6,179	
	Control, Driving me	echanism	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic 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 galva	nized steel sheets	Pre-coated galvanized steel sheets		
				ng for -BS type)	(+powder coating for -BS type)		
			<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell>	' 8/1 or similar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimensio	n HxWxD	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	High pressure pr	otection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit		Over-heat protection,	Over-heat protection,	Over-heat protection,	Over-heat protection,	
	(COMP./FAN)		Over-current protection	Over-current protection	Over-current protection	Over-current protection	
Refrigerant	Type x original cl	harge	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)	237 (523)	237 (523)	237 (523)	237 (523)	
Heat exchanger			Salt-resistant cros	s fin & copper tube	Salt-resistant cross	s fin & copper tube	
Pipe between unit Liquid pipe mm (in.)		15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed		
and distributor	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-Y202/302S-G2  Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		

Normal cooling conditions (subject to the Boots 2)											
	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.)							



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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

#### **OUTDOOR UNIT**

# Y Series - Cooling-only PUCY-P YSKA(-BS)

#### ► Specifications





Model			PUCY-P950YSKA (-BS)	PUCY-P1000YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	104.0	112.0
(Nominal)		kcal/h	89,400	96,300
	*1	BTU / h	354,800	382,100
	Power input	kW	35.13	38.88
	Current input	Α	59.3-56.3-54.3	65.6-62.3-60.1
	EER	kW / kW	2.96	2.88
Cooling capacity	*3	kW	105.7	113.9
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <a></a>	67.5	68
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model							
Model			PUCY-P450YKA (-BS)	PUCY-P500YKA (-BS)	PUCY-P500YKA (-BS)	PUCY-P500YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	
	Air flow rate	m³/min	175	320	320	320	
		L/s	2,917	5,333	5,333	5,333	
		cfm	6,179	11,299	11,299	11,299	
	Control, Driving me	echanism	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2	0.92 x 2	
*2	External static pr	ess.	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	
	Motor output kW		12.4	14.3	14.3	14.3	
	Case heater	kW	_	_	_	_	
External finish			Pre-coated galva	nized steel sheets	Pre-coated galvanized steel sheets		
			(+powder coati	ng for -BS type)	(+powder coating for -BS type)		
			<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell>	' 8/1 or similar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimensio	n HxWxD	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	High pressure pr	otection	High pressure sensor, High press	sure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO	MP./FAN)	Over-heat protection, (	Over-current protection	Over-heat protection, (	Over-current protection	
Refrigerant	Type x original cl	narge	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)	237 (523)	305 (673)	305 (673)	305 (673)	
Heat exchanger			Salt-resistant cros	s fin & copper tube	Salt-resistant cross	s fin & copper tube	
Pipe between unit	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
and distributor	nd distributor 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 k	kit: CMY-Y200VBK2	Outdoor Twinning k	tit: CMY-Y200VBK2	
				G2, CMY-Y202/302S-G2		G2, CMY-Y202/302S-G2	
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	

<sup>\*1</sup> Nominal cooling conditions (subject to JIS B8615-2)

	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.)

<sup>\*2</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

#### **OUTDOOR UNIT**

# Y Series - Cooling-only PUCY-P YSKA(-BS)

#### ► Specifications





		PUCY-P1050YSKA (-BS)	PUCY-P1100YSKA (-BS)		
		3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz		
*1	kW	115.0	121.5		
	kcal/h	98,900	104,500		
*1	BTU / h	392,400	414,600		
Power input	kW	33.39	35.21		
Current input	Α	56.3-53.5-51.6	59.4-56.4-54.4		
EER	kW / kW	3.44	3.45		
*3	kW	116.9	123.5		
Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)		
Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)		
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)		66.5	66.5		
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		
	Power input Current input EER *3 Indoor Outdoor Total capacity Model / Quantity rel noic room) Liquid pipe	Kcal/h	3-phase 4-wire 380-400-415V 50/60Hz  *1 kW 115.0  kcal/h 98,900  *1 BTU / h 392,400  Power input kW 33.3.9  Current input A 56.3-53.5-51.6  EER kW / kW 3.44  *3 kW 116.9  Indoor W.B. 15.0-24.0°C (59~75°F)  Outdoor D.B. 110.0-52.0°C (50~126°F)  Total capacity 50~130% of outdoor unit capacity  Model / Quantity  fel 66.5  incorpon dB <a> 66.5  incorpon dB <a> 66.5  incorpon 19.05 (3/4) Brazed</a></a>		

didiffotor	oue pipe			(. 5.5)			(. 6.6)	
Set Model								
Model			PUCY-P300YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P450YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	echanism	Inverter-	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	pressor	Inverte	er scroll hermetic comp	ressor
	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			Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimension	n HxWxD	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 48-1/16 x 29-3/16			65 x 48-1/16 x 29-3/16
Protection	High pressure pre					High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO			protection, Over-currer			protection, Over-currer	
Refrigerant	Type x original ch				R410A x 11.5 kg (26 lbs)			
Net weight		kg (lbs)	201 (444)	201 (444)	237 (523)	201 (444)	237 (523)	237 (523)
Heat exchanger				sistant cross fin & copp			sistant cross fin & copp	
Pipe between unit		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
and distributor	Gas pipe	mm (in.)	22.2 (7/8) Brazed	,	28.58 (1-1/8) Brazed	. ,	28.58 (1-1/8) Brazed	. ,
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3			Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G

Normal cooling conditions (subject to the Boots 2)											
	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.)							

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

## **OUTDOOR UNIT** Y Series - Cooling-only PUCY-P YSKA(-BS)





		PUCY-P1150YSKA (-BS)	PUCY-P1200YSKA (-BS)
Power source		3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
*1	kW	128.0	132.0
	kcal/h	110,100	113,500
*1	BTU / h	436,700	450,400
Power input	kW	36.15	38.15
Current input	Α	61.0-57.9-55.8	64.4-61.1-58.9
EER kW/kW		3.54	3.46
*3	kW	130.1	134.2
Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
Model / Quantity		P15~P250/2~50	P15~P250/2~50
vel choic room)	dB <a></a>	67.5	68
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
	Power input Current input EER *3 Indoor Outdoor Total capacity Model / Quantity vel shoic room) Liquid pipe	NW   Necal/h	3-phase 4-wire 380-400-415V 50/60Hz     *1

Set Model									
Model			PUCY-P350YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P400YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	175	175	175	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	
	Control, Driving me	echanism	Inverter-	-control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor	
	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			Pre-co	Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)			
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			
External dimensio	n HxWxD	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	High pressure pr			, High pressure switch			, High pressure switch		
devices	Inverter circuit (CO	MP./FAN)	Over-heat p	protection, Over-curren	t protection	Over-heat	protection, Over-currer	t protection	
Refrigerant	Type x original ch			R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)			
Net weight		kg (lbs)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)	
Heat exchanger				sistant cross fin & copp			sistant cross fin & copp		
	Pipe between unit Liquid pipe mm (in.) and distributor Gas 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	
			28.58 (1-1/8) Brazed		. ,		28.58 (1-1/8) Brazed		
Optional parts	Optional parts			Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3			
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G	

14011IIIIai cooliiig coi	iditions (subject to the boot	5 L)		
	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.)



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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

## **OUTDOOR UNIT** Y Series - Cooling-only PUCY-P YSKA(-BS)





Model			PUCY-P1250YSKA (-BS)	PUCY-P1300YSKA (-BS)
Power source	Power source		3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	136.0	140.0
(Nominal)		kcal/h	117,000	120,400
	*1	BTU / h	464,000	477,700
	Power input	kW	41.27	44.82
	Current input A		69.6-66.1-63.7	75.6-71.8-69.2
	EER	kW / kW	3.29	3.12
Cooling capacity	*3	kW	138.3	142.3
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le (measured in aned		dB <a></a>	68	68
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model								
Model			PUCY-P400YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P400YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	echanism	Inverter-	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverter-	-control, Direct-driven I	by motor	Inverte	er scroll hermetic comp	ressor
	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			Pre-co	pated galvanized steel	sheets
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimensio	n HxWxD	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
		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
Protection	High pressure pre				at 4.15 MPa (601 psi)		, High pressure switch	
devices	Inverter circuit (CO	MP./FAN)		protection, Over-current			protection, Over-curren	
Refrigerant	Type x original ch	narge	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)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)
Heat exchanger				sistant cross fin & copp			sistant cross fin & copp	
Pipe between unit	Pipe between unit 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
and distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed	
Optional parts				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G

•	torriiriai cooiirig cor	iditions (subject to the boot	0 2)		
		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.)



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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

# OUTDOOR UNIT Y Series - Cooling-only PUCY-P YSKA(-BS)



#### ► Specifications

Model			PUCY-P1350YSKA (-BS)	PUCY-P1400YSKA (-BS)	
Power source	ower 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	*1	kW	144.0	152.0	
(Nominal)		kcal/h	123,800	130,700	
	*1	BTU / h	491,300	518,600	
	Power input	kW	48.39	52.59	
	Current input A		81.6-77.6-74.8	88.7-84.3-81.2	
	EER	kW / kW	2.97	2.89	
Cooling capacity	*3	kW	146.4	154.5	
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50	
Sound pressure le	vel	dB <a></a>	68	68.5	
(measured in anechoic room)		UB <a></a>	00	0.00	
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed	

Set Model									
Model			PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P450YKA (-BS)	PUCY-P500YKA(-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2	
	Air flow rate	m³/min	175	175	175	175	175	320	
		L/s	2,917	2,917	2,917	2,917	2,917	5,333	
		cfm	6,179	6,179	6,179	6,179	6,179	11,299	
	Control, Driving me	echanism	Inverter	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 2	
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	12.4	12.4	12.4	12.4	12.4	14.3	
	Case heater	kW	_	-	-	-	-	-	
External finish			Pre-coated galvanized steel sheets			Pre-co	ated galvanized steel	sheets	
			(+powder coating for -BS type)			(+powder coating for -BS type)			
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			
External dimensio	n HxWxD	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 1,750 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	High pressure pr				at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO	MP./FAN)	Over-heat	protection, Over-currer	t protection	Over-heat	protection, Over-currer	t protection	
Refrigerant	Type x original ch	harge	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)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)	305 (673)	
Heat exchanger				sistant cross fin & copp			sistant cross fin & copp		
Pipe between unit 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		
and distributor	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				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3			
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G	

•	torriiriai cooiirig cor	iditions (subject to the boot	0 2)		
		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.)



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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

## **OUTDOOR UNIT** Y Series - Cooling-only PUCY-P YSKA(-BS)



#### ► Specifications

Model			PUCY-P1450YSKA (-BS)	PUCY-P1500YSKA (-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	*1	kW	160.0	168.0
(Nominal)		kcal/h	137,600	144,500
	*1	BTU / h	545,900	573,200
	Power input	kW	56.53	60.64
	Current input	A	95.4-90.6-87.3	102.3-97.2-93.7
	EER	kW / kW	2.83	2.77
Cooling capacity	*3	kW	162.7	170.8
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <a></a>	69.5	70
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model						•		
Model			PUCY-P450YKA (-BS)	PUCY-P500YKA (-BS)	PUCY-P500YKA(-BS)	PUCY-P500YKA (-BS)	PUCY-P500YKA (-BS)	PUCY-P500YKA(-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	m³/min	175	320	320	320	320	320
		L/s	2,917	5,333	5,333	5,333	5,333	5,333
		cfm	6,179	11,299	11,299	11,299	11,299	11,299
	Control, Driving me	echanism	Inverter-	-control, Direct-driven b	by motor	Inverter-	-control, Direct-driven I	by motor
	Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2	0.92 x 2
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	12.4	14.3	14.3	14.3	14.3	14.3
	Case heater	kW	-	_	_	-	_	_
External finish			Pre-coated galvanized steel sheets				pated galvanized steel	
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimensio	n HxWxD	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 68-15/16 x 29-3/16
Protection	High pressure pr				at 4.15 MPa (601 psi)			
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer	
Refrigerant	Type x original ch				R410A x 11.8 kg (27 lbs)			9\ /
Net weight		kg (lbs)	237 (523)	305 (673)	305 (673)	305 (673)	305 (673)	305 (673)
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp		
Pipe between unit 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	
and distributor	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	Optional parts			Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G

•	torriiriai cooiirig cor	iditions (subject to the boot	02)		
		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.)

<sup>\*2</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

## **OUTDOOR UNIT** Y Series - Cooling-only PUCY-EP YSKA(-BS)





Model			PUCY-EP400YSKA (-BS)	PUCY-EP450YSKA (-BS)	PUCY-EP500YSKA (-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz	
Cooling capacity	oling capacity *1 kW		44.8 50.4		56.0	
(Nominal)		kcal/h	38,500	43,300	48,200	
	*1	BTU / h	152,900	172,000	191,100	
	Power input	kW	11.18	12.59	14.16	
	Current input	Α	18.8-17.9-17.2	21.2-20.1-19.4	23.9-22.7-21.8	
	EER	kW / kW	4.00	4.00	3.95	
Cooling capacity	*3	kW	45.5	51.2	56.9	
Temp. range of	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)	
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)	
Indoor unit Total capacity connectable Model / Quantity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
			P15~P250/1~34	P15~P250/1~39	P15~P250/1~43	
Sound pressure level (measured in anechoic room)		dB <a></a>	60	60.5	61	
Refrigerant piping	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
diameter Gas pipe		mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Set Model	•			· · · · · · · · · · · · · · · · · · ·		

Set Model									
Model			PUCY-P200YKA (-BS)	PUCY-P200YKA (-BS)	PUCY-P200YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P250YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	175	175	175	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	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		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	External finish			Pre-coated galvanized steel sheets Pre-coated gal		nized steel sheets	Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)		(+powder coating for -BS type)		(+powder coating for -BS type)		
				<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	
External dimension	External dimension HxWxD mm		1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	
Protection	High pressure protection		High pressure sensor,		High pressure sensor,		High pressure sensor,		
devices			High pressure switch	at 4.15 MPa (601 psi)	High pressure switch at 4.15 MPa (601 psi)		High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection,		Over-heat protection,		Over-heat protection,		
	(COMP./FAN)		Over-current protection		Over-current protection		Over-current protection		
Refrigerant	Type x original cl	harge	R410A x 5.5 kg (13 lbs)	R410A x 5.5 kg (13 lbs)	R410A x 5.5 kg (13 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	
Net weight		kg (lbs)	174 (384)	174 (384)	174 (384)	183 (404)	183 (404)	183 (404)	
Heat exchanger		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube			
Pipe between unit	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	
and distributor	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		Outdoor Twinning kit: CMY-Y100VBK3		Outdoor Twinning kit: CMY-Y100VBK3		
			Joint: CMY-Y102SS/LS-G2,		Joint: CMY-Y102SS/LS-G2,		Joint: CMY-Y102SS/LS-G2,		
			CMY-Y202S-G2		CMY-Y202S-G2		CMY-Y202S-G2		
			Header: CMY-Y104/108/1010-G Header: CMY-Y104/108/1010-G		Header: CMY-Y104/108/1010-G				

<sup>\*1</sup> Nominal cooling conditions (subject to JIS B8615-2)

	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.)	

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



<sup>\*2</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)







Model			PUCY-EP650YSKA (-BS)	PUCY-EP700YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	73.5	80.0
(Nominal)		kcal/h	63,200	68,800
	*1	BTU / h	250,800	273,000
	Power input	kW	19.74	21.56
	Current input	Α	33.3-31.6-30.5	36.3-34.5-33.3
	EER	kW / kW	3.72	3.71
Cooling capacity	*3	kW	74.7	81.3
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le (measured in aned		dB <a></a>	64	64
Refrigerant piping	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed

Set Model							
Model		PUCY-P300YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)		
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate m³/min		175	175	175	175	
		L/s	2,917	2,917	2,917	2,917	
		cfm	6,179	6,179	6,179	6,179	
	Control, Driving me	echanism	Inverter-control, Dir	rect-driven by motor	Inverter-control, Dir	ect-driven by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static pr	ess.	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	8.1	10.4	10.4	10.4	
	Case heater	kW	_	_	_	_	
External finish			Pre-coated galva	nized steel sheets	Pre-coated galvar	nized steel sheets	
				ng for -BS type)	(+powder coating for -BS type)		
			<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td><munsell 5y<="" td=""><td>8/1 or similar&gt;</td></munsell></td></munsell>	' 8/1 or similar>	<munsell 5y<="" td=""><td>8/1 or similar&gt;</td></munsell>	8/1 or similar>	
External dimension	n HxWxD	mm	1,650 x 920 x 740 1,650 x 1,220 x 740		1,650 x 1,220 x 740	1,650 x 1,220 x 740	
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection	High pressure pr	otection	High pressure sensor, High press	sure switch at 4.15 MPa (601 psi)			
devices	Inverter circuit (CC	MP./FAN)	Over-heat protection, 0	Over-current protection	Over-heat protection, (	Over-current protection	
Refrigerant	Type x original cl	harge	R410A x 6.5 kg (15 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	
Net weight		kg (lbs)	201 (444)	237 (523)	237 (523)	237 (523)	
Heat exchanger			Salt-resistant cros	s fin & copper tube	Salt-resistant cross	s fin & copper tube	
Pipe between uni	t Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	
and distributor	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
Optional parts				kit: CMY-Y100VBK3		it: CMY-Y200VBK2	
				G2, CMY-Y202/302S-G2	Joint: CMY-Y102SS/LS-		
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	

Nonlina cooling coi	iditions (subject to the boot	5 L)		
	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.)

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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





Model			PUCY-EP750YSKA (-BS)	PUCY-EP800YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	84.8	90.4
(Nominal)		kcal/h	72,900	77,700
	*1	BTU / h	289,300	308,400
	Power input	kW	21.85	23.33
	Current input	Α	36.8-35.0-33.7	39.3-37.4-36.0
	EER	kW / kW	3.88	3.87
Cooling capacity	*3	kW	86.2	91.9
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le (measured in anec		dB <a></a>	64	64
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed
Cat Madal	·		The state of the s	· · · · · · · · · · · · · · · · · · ·

Set Model									
Model			PUCY-P200YKA (-BS)	PUCY-P200YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P200YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P350YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	175	175	175	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	
	Control, Driving me	chanism	Inverter-	-control, Direct-driven b		Inverter	-control, Direct-driven I	by motor	
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverter	-control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	by motor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	5.5	5.5	10.4	5.5	6.9	10.4	
	Case heater	kW	_	_	-	-	_	_	
External finish			Pre-coated galvanized steel sheets			Pre-co	Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)			
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 1="" 5y="" 8="" or="" similar=""></munsell>				
External dimensio	n HxWxD	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	
		in.		65 x 36-1/4 x 29-3/16			65 x 36-1/4 x 29-3/16		
Protection	High pressure pre				at 4.15 MPa (601 psi)				
devices	Inverter circuit (CO	MP./FAN)		protection, Over-curren			protection, Over-currer		
Refrigerant	Type x original ch					R410A x 5.5 kg (13 lbs)		R410A x 11.5 kg (26 lbs)	
Net weight		kg (lbs)	174 (384)	174 (384)	237 (523)	174 (384)	183 (404)	237 (523)	
Heat exchanger				sistant cross fin & copp			sistant cross fin & copp		
	Pipe between unit Liquid pipe mm (in.)		9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	
and distributor	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	
Optional parts				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3			
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G	

<sup>\*1</sup> Nominal cooling conditions (subject to JIS B8615-2)

	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.)



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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

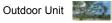




Model			PUCY-EP850YSKA (-BS)	PUCY-EP900YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	96.0	101.5
(Nominal)		kcal/h	82,600	87,300
	*1	BTU / h	327,600	346,300
	Power input	kW	24.80	26.71
	Current input	Α	41.8-39.7-38.3	45.0-42.8-41.2
	EER	kW / kW	3.87	3.80
Cooling capacity	*3	kW	97.6	103.2
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le (measured in aned		dB <a></a>	64	65
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model								
Model			PUCY-P250YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P250YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P350YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	chanism	Inverter-	control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	pressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	6.9	6.9	10.4	6.9	8.1	10.4
	Case heater	kW	_	-	_	-	_	_
External finish			Pre-coated galvanized steel sheets			Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			
External dimension	n HxWxD	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.		65 x 36-1/4 x 29-3/16			65 x 36-1/4 x 29-3/16	
Protection	High pressure pre			High pressure switch		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer	
Refrigerant	Type x original ch	narge		R410A x 6.5 kg (15 lbs)		R410A x 6.5 kg (15 lbs)	R410A x 6.5 kg (15 lbs)	
Net weight		kg (lbs)	183 (404)	183 (404)	237 (523)	183 (404)	201 (444)	237 (523)
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp		
Pipe between unit		mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
and distributor 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	Optional parts			Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G

voluma cooling conditions (subject to 3/5 Boo 15-2)									
	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.)					



<sup>\*2</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)



### ► Specifications

Model			PUCY-EP950YSKA (-BS)	PUCY-EP1000YSKA (-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz	3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity	*1	kW	107.0	113.5
(Nominal)		kcal/h	92,000	97,600
	*1	BTU / h	365,100	387,300
	Power input	kW	28.68	30.51
	Current input	Α	48.4-45.9-44.3	51.5-48.9-47.1
	EER	kW / kW	3.73	3.72
Cooling capacity	*3	kW	108.8	115.4
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le measured in ane	vel choic room)	dB <a></a>	66	66
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model								
Model			PUCY-P300YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P300YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	chanism	Inverter-	-control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	8.1	8.1	10.4	8.1	10.4	10.4
	Case heater	kW	_	_	_	-	_	_
External finish			Pre-coated galvanized steel sheets			Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			
External dimensio	n HxWxD	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 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
Protection	High pressure pr			, High pressure switch				
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer	
Refrigerant	Type x original cl					R410A x 6.5 kg (15 lbs)		
Net weight		kg (lbs)	201 (444)	201 (444)	237 (523)	201 (444)	237 (523)	237 (523)
	Heat exchanger			sistant cross fin & copp			sistant cross fin & copp	
	Pipe between unit Liquid pipe mm (in.)		12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
and distributor	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
Optional parts				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G

<sup>\*1</sup> Nominal cooling conditions (subject to JIS B8615-2)

	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.)

<sup>\*2</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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





Model			PUCY-EP1050YSKA (-BS)	PUCY-EP1100YSKA (-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	*1	kW	120.0	124.0
(Nominal)		kcal/h	103,200	106,600
	*1	BTU / h	409,400	423,100
	Power input	kW	32.34	34.25
	Current input	Α	54.5-51.8-49.9	57.8-54.9-52.9
	EER	kW / kW	3.71	3.62
Cooling capacity	*3	kW	122.0	126.1
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	10.0~52.0°C (50~126°F)	10.0~52.0°C (50~126°F)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <a></a>	66	67
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model				,			,	
Model		PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P350YKA (-BS)	PUCY-P400YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	echanism	Inverter-	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*2	External static pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.4	10.4	10.4	10.4	10.4	10.8
	Case heater	kW	-	-	-	-	-	-
External finish			Pre-coated galvanized steel sheets			Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""> <munsell 1="" 5y="" 8="" or="" similar=""></munsell></munsell>			UNSELL 5Y 8/1 or sim	ilar>	
External dimensio	n HxWxD	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
Protection	High pressure pr					High pressure sensor		
devices	Inverter circuit (CO	MP./FAN)		protection, Over-currer			protection, Over-currer	
Refrigerant	Type x original ch	narge				R410A x 11.5 kg (26 lbs)		R410A x 11.5 kg (26 lbs)
Net weight		kg (lbs)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)	237 (523)
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp		
Pipe between unit	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
and distributor	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				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Header: CMY-Y104/108/1010-G			Header: CMY-Y104/108/1010-G		

14011IIIIai cooliiig coi	continue cooling containons (subject to the Boots 2)										
	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.)							

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

\*3 Reference data under condition of Indoor: 27°CD.B./19.5°CW.B. (81°FD.B./67°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)

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

## **OUTDOOR UNIT S** Series PUMY-P VKM(-BS)

## ► Specifications



Model			PUMY-P112VKM(-BS)	PUMY-P125VKM(-BS)	PUMY-P140VKM(-BS)
Power source			1-phase 220-240V 50Hz	1-phase 220-240V 50Hz	1-phase 220-240V 50Hz
Cooling capacity	*1	kW	12.5	14.0	15.5
(Nominal)	*1	BTU / h	42,700	47,800	52,900
( /	Power input	kW	2.79	3.46	4.52
	Current input	Α	12.87-12.32-11.80	15.97-15.27-14.64	20.86-19.95-19.12
	EER	kW / kW	4.48	4.05	3.43
Temp. range of	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)
cooling	Outdoor temp.	D.B.	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)
Heating capacity	*2		14.0	16.0	18.0
(Nominal)		BTU / h	47,800	54.600	61,400
(11011111101)	Power input	kW	3.04	3.74	4.47
	Current input	A	14.03-13.42-12.86	17.26-16.51-15.82	20.63-19.73-18.91
	COP	kW / kW	4.61	4.28	4.03
Temp. range of	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)
heating	Outdoor temp.	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	Total capacity	VV.D.	50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity
connectable	Model / Quantity		P15~P140 / 9	P15~P140 / 10	P15~P140 / 12
Sound pressure le			F15~F14079	F15~F140710	F 15~F 140 / 12
(measured in aned	choic room)	dB <a></a>	49 / 51	50 / 52	51 / 53
Refrigerant piping	Liquid pipe	mm (in.)	9.52(3/8) Flare	9.52(3/8) Flare	9.52(3/8) Flare
diameter	Gas pipe	mm (in.)	15.88(5/8) Flare	15.88(5/8) Flare	15.88(5/8) Flare
FAN	Type x Quantity		Propeller Fan x 2	Propeller Fan x 2	Propeller Fan x 2
	Air flow rate	m³/min	110	110	110
		L/s	1,833	1,833	1,833
		cfm	3,884	3,884	3,884
	Motor output	kW	0.06 + 0.06	0.06 + 0.06	0.06 + 0.06
Compressor	Type x Quantity		Scroll hermetic compressor x 1	Scroll hermetic compressor x 1	Scroll hermetic compressor x 1
	Starting method		Inverter	Inverter	Inverter
	Motor output kW		2.9	3.5	3.9
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 dimensio	n HxWxD	mm	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)
		in.	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)
Protection	High pressure pre	otection	High pressure Switch	High pressure Switch	High pressure Switch
devices	Inverter circuit (CO	MP./FAN)	Overcurrent detection, Overheat detection (Heatsink thermistor )	Overcurrent detection, Overheat detection (Heatsink thermistor )	Overcurrent detection, Overheat detection (Heatsink thermistor )
	Compressor		Compressor thermistor, Over current detection	Compressor thermistor, Over current detection	Compressor thermistor, Over current detection
	Fan motor		Overheating, Voltage protection	Overheating, Voltage protection	Overheating, Voltage protection
Refrigerant	Type x original ch	narge	R410A 4.8kg	R410A 4.8kg	R410A 4.8kg
Net weight		kg (lbs)	123(272)	123(272)	123(272)
Heat exchanger		. 5 (5)	Cross Fin and Copper tube	Cross Fin and Copper tube	Cross Fin and Copper tube
Defrosting method	i		Reversed refrigerant circuit	Reversed refrigerant circuit	Reversed refrigerant circuit
Optional parts			Joint: CMY-Y62-G-E	Joint: CMY-Y62-G-E	Joint: CMY-Y62-G-E
- h - arran harran			Header: CMY-Y64/68-G-E	Header: CMY-Y64/68-G-E	Header: CMY-Y64/68-G-E
	-			1.00001. OWIT 10-700 C-L	. IOUGOI. ONIT TO 700 G-L

, "	*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.)						

<sup>\*</sup>Nominal condition \*1,\*2 are subject to ISO 15042.
\*Due to continuing improvement, above specification may be subject to change without notice.



## ► Specifications



Model			PUMY-P112YKM(-BS)	PUMY-P125YKM(-BS)	PUMY-P140YKM(-BS)
Power source			3-phase 380-415V 50Hz	3-phase 380-415V 50Hz	3-phase 380-415V 50Hz
Cooling capacity	*1	kW	12.5	14.0	15.5
(Nominal)	*1	BTU / h	42,700	47.800	52,900
` ,	Power input	kW	2.79	3.46	4.52
	Current input	Α	4.46-4.24-4.09	5.53-5.26-5.07	7.23-6.87-6.62
	EER	kW / kW	4.48	4.05	3.43
Temp. range of	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)
cooling	Outdoor temp.	D.B.	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)
Heating capacity	*2		14.0	16.0	18.0
(Nominal)	*2	BTU / h	47,800	54,600	61.400
,	Power input	kW	3.04	3.74	4.47
	Current input	Α	4.86-4.62-4.45	5.98-5.68-5.48	7.15-6.79-6.55
	COP	kW / kW	4.61	4.28	4.03
Temp. range of	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)
heating	Outdoor temp.	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	Total capacity		50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity
connectable	Model / Quantity		P15~P140 / 9	P15~P140 / 10	P15~P140 / 12
Sound pressure le	vel				
(measured in aned		dB <a></a>	49 / 51	50 / 52	51 / 53
Refrigerant piping	Liquid pipe	mm (in.)	9.52(3/8) Flare	9.52(3/8) Flare	9.52(3/8) Flare
diameter	Gas pipe	mm (in.)	15.88(5/8) Flare	15.88(5/8) Flare	15.88(5/8) Flare
FAN	Type x Quantity		Propeller Fan x 2	Propeller Fan x 2	Propeller Fan x 2
	Air flow rate	m³/min	110	110	110
		L/s	1,833	1.833	1,833
		cfm	3.884	3.884	3.884
	Motor output	kW	0.06 + 0.06	0.06 + 0.06	0.06 + 0.06
Compressor	Type x Quantity		Scroll hermetic compressor x 1	Scroll hermetic compressor x 1	Scroll hermetic compressor x 1
	Starting method		Inverter	Inverter	Inverter
	Motor output kW		2.9	3.5	3.9
External finish			·		
			Galvanized Steel Sheet	Galvanized Steel Sheet	Galvanized Steel Sheet
			Munsell No. 3Y 7.8/1.1	Munsell No. 3Y 7.8/1.1	Munsell No. 3Y 7.8/1.1
External dimension	n HxWxD	mm	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)
		in.	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)
Protection	High pressure pr	otection	High pressure Switch	High pressure Switch	High pressure Switch
devices	Inverter circuit (CC		Overcurrent detection, Overheat detection (Heatsink thermistor )	Overcurrent detection, Overheat detection (Heatsink thermistor )	Overcurrent detection, Overheat detection (Heatsink thermistor )
	Compressor		Compressor thermistor, Over current detection	Compressor thermistor, Over current detection	Compressor thermistor, Over current detection
	Fan motor		Overheating, Voltage protection	Overheating, Voltage protection	Overheating, Voltage protection
Refrigerant	Type x original cl	narge	R410A 4.8kg	R410A 4.8kg	R410A 4.8kg
Net weight		kg (lbs)	125(276)	125(276)	125(276)
Heat exchanger			Cross Fin and Copper tube	Cross Fin and Copper tube	Cross Fin and Copper tube
Defrosting method			Reversed refrigerant circuit	Reversed refrigerant circuit	Reversed refrigerant circuit
Optional parts			Joint: CMY-Y62-G-E	Joint: CMY-Y62-G-E	Joint: CMY-Y62-G-E
- p - 21.121 p 21.13			Header: CMY-Y64/68-G-E	Header: CMY-Y64/68-G-E	Header: CMY-Y64/68-G-E

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.)						

<sup>\*</sup>Nominal condition \*1,\*2 are subject to ISO 15042.
\*Due to continuing improvement, above specification may be subject to change without notice.

### **OUTDOOR UNIT** S Series **PUMY-P YKM**





Temp. range of cooling (Nominal)	*1 *1 Power input Current input EER Indoor temp. Outdoor temp.	kW BTU / h kW A kW / kW W.B. D.B.	3-phase 380-415V 50Hz 20.0 68,200 5.48 8.95-8.51-8.20 3.65	3-phase 380-415V 50Hz 22.4 76,400 6.91 11.29-10.72-10.34	3-phase 380-415V 50Hz 25.0 85,300 9.62
(Nominal)  Temp. range of cooling Heating capacity (Nominal)	Power input Current input EER Indoor temp. Outdoor temp. *2	BTU/h kW A kW/kW W.B. D.B.	68,200 5.48 8.95-8.51-8.20	76,400 6.91	85,300
Temp. range of cooling Heating capacity (Nominal)	Power input Current input EER Indoor temp. Outdoor temp. *2	kW A kW/kW W.B. D.B.	5.48 8.95-8.51-8.20	6.91	·
Temp. range of cooling (Nominal)	Current input EER Indoor temp. Outdoor temp. *2	A kW/kW W.B. D.B.	8.95-8.51-8.20		0.60
Temp. range of cooling (Nominal)	Indoor temp. Outdoor temp. *2	kW/kW W.B. D.B.		11.29-10.72-10.34	5.02
Temp. range of cooling (Nominal)	Outdoor temp.  *2	W.B. D.B.	3.65		15.72-14.93-14.39
cooling ( Heating capacity (Nominal)	Outdoor temp. *2	D.B.		3.24	2.60
Heating capacity (Nominal)	*2		15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)
(Nominal)	<u> </u>		-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)	-5.0~46.0°C(23~115°F)
· · · · · · · · · · · · · · · · · · ·	*2	kW	22.4	25.0	27.3
Į,F		BTU/h	76,400	85,300	93,200
	Power input	kW	5.73	6.96	7.65
-	Current input	Α	9.36-8.89-8.57	11.37-10.80-10.41	12.50-11.87-11.44
(	COP	kW/kW	3.91	3.59	3.57
Temp. range of	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)
heating	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 1	Total capacity		50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity	50~130 % of outdoor unit capacity
connectable 1	Model / Quantity		P15~P224 / 12	P15~P250 / 12	P15~P250 / 12
Sound pressure level (measured in anecho		dB <a></a>	56/61	56 / 61	58 / 63
Refrigerant piping L	Liquid pipe	mm (in.)	9.52(3/8) Flare *3	9.52(3/8) Flare *3	9.52(3/8) Flare *3
diameter (	Gas pipe	mm (in.)	22.2(7/8) Brazed	22.2(7/8) Brazed	22.2(7/8) Brazed
FAN 1	Type x Quantity		Propeller Fan x 2	Propeller Fan x 2	Propeller Fan x 2
-	Air flow rate	m <sup>3</sup> /min	134	134	143.8
		L/s	2,233	2,233	2,397
		cfm	4,732	4,732	5,078
	Motor output	kW	0.2 + 0.2	0.2 + 0.2	0.2 + 0.2
		N.V.V	Scroll hermetic compressor x 1	Scroll hermetic compressor x 1	Scroll hermetic compressor x 1
-	Type x Quantity		·	· ·	·
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	4.7	5.4	6.0
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 H	HxWxD	mm	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)	1,338 x 1,050 x 330 (+25)
		in.	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)	52-11/16 x 41-11/32 x 13 (+1)
	High pressure prote	ection	High pressure Switch	High pressure Switch	High pressure Switch
devices	Inverter circuit (CON	MP./FAN)	Overcurrent detection, Overheat detection (Heatsink thermistor)	Overcurrent detection, Overheat detection (Heatsink thermistor)	Overcurrent detection, Overheat detection (Heatsink thermistor)
	Compressor		Compressor thermistor, Over current detection	Compressor thermistor, Over current detection	Compressor thermistor, Over current detection
-	Fan motor		Overheating, Voltage protection	Overheating, Voltage protection	Overheating, Voltage protection
	Type x original char	ae	R410A 7.3kg	R410A 7.3kg	R410A 7.3kg
Net weight	,	kg (lbs)	138(304)	138(304)	138(304)
Heat exchanger		J ()	Cross Fin and Copper tube	Cross Fin and Copper tube	Cross Fin and Copper tube
Defrosting method			Reversed refrigerant circuit	Reversed refrigerant circuit	Reversed refrigerant circuit
Optional parts			Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header: CMY-Y64/68-G-E

#### 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.)	Om (Oft.)
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.)

\*Nominal condition \*1,\*2 are subject to ISO 15042.

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

\*3 Liquid pipe diameter:12.7mm in case of farthest piping length is longer than 60m.



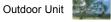




## ► Specifications

Model			PUHY-P200YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P350YKA (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling capacity	*1	kW	22.4	28.0	33.5	40.0
(Nominal)		kcal/h	20,000	25,000	30,000	35,000
,	*1	BTU / h	76,400	95,500	114,300	136,500
	Power input	kW	5.19	6.89	8.86	11.69
	Current input	Α	8.7-8.3-8.0	11.6-11.0-10.6	14.9-14.2-13.6	19.7-18.7-18.0
	EER	kW / kW	4.31	4.06	3.78	3.42
Cooling capacity	*4	kW	22.7	28.4	34.0	40.6
Temp. range of	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)
cooling	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	*2	kW	22.4	28.0	33.5	40.0
(Nominal)		kcal/h	20,000	25,000	30,000	35,000
,	*2	BTU / h	76,400	95.500	114.300	136,500
	Power input	kW	5.05	6.33	8.11	9.61
	Current input	Α	8.5-8.0-7.8	10.6-10.1-9.7	13.6-13.0-12.5	16.2-15.4-14.8
	COP	kW / kW	4.43	4.42	4.13	4.16
Temp. range of	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)
heating	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	Total capacity		50~130% of outdoor unit capacity			
connectable	Model / Quantity	-	P15~P250/1~17	P15~P250/1~21	P15~P250/1~26	P15~P250/1~30
Sound pressure le						
(measured in ane		dB <a></a>	57	58	61	61
Refrigerant piping				9.52 (3/8) Brazed (12.7 (1/2)	9.52 (3/8) Brazed (12.7 (1/2)	
diameter	Liquia pipe	mm (in.)	9.52 (3/8) Brazed	Brazed, farthest length >= 90 m)	Brazed, farthest length >= 40 m)	12.7 (1/2) Brazed
diameter.	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	111111 (111.)	Propeller fan x 1			
I AIN	Air flow rate	m³/min	175	175	185	210
	7 11017 1410	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		
	Motor output kW		0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static pr		0 Pa (0 mmH <sub>2</sub> O)			
Compressor	Type x Quantity	000.	Inverter scroll hermetic compressor			
Compressor	Starting method	-	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	5.5	6.9	8.1	10.4
	Case heater	kW	-	_	_	-
External finish	Odde Hedler		Pre-coated galvanized steel sheets			
External lillon			(+powder coating for -BS type)			
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	<pre><munsell 1="" 5y="" 8="" or="" similar=""></munsell></pre>
External dimensio	n HxWxD	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	High pressure pr					High pressure sensor, High pressure
devices			switch at 4.15 MPa (601 psi)			
	Inverter circuit (CC	MP./FAN)	Over-heat protection,	Over-heat protection,	Over-heat protection,	Over-heat protection,
		Over-current protection	Over-current protection	Over-current 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)	195 (430)	195 (430)	211 (466)	256 (565)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & aluminium 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

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.)						



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>z</sub>O, 6.1mmH<sub>z</sub>O).

\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

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

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





## ► Specifications

Model			PUHY-P400YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P500YKA (-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	*1	kW	45.0	48.0	55.0
(Nominal)		kcal/h	40,000	43,000	49,000
	*1	BTU / h	153,500	163,800	187,700
	Power input	kW	13.55	15.78	18.39
	Current input	Α	22.8-21.7-20.9	26.6-25.3-24.3	31.0-29.4-28.4
	EER	kW / kW	3.32	3.04	2.99
Cooling capacity	*4	kW	45.9	49.0	56.2
Temp. range of	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)
cooling	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	*2	kW	45.0	48.0	55.0
(Nominal)		kcal/h	40,000	43,000	49,000
	*2	BTU / h	153,500	163,800	187,700
	Power input	kW	10.92	13.33	15.71
	Current input	Α	18.4-17.5-16.8	22.5-21.3-20.6	26.5-25.1-24.2
	COP	kW / kW	4.12	3.60	3.50
Temp. range of	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)
heating	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	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure le		dB <a></a>	63	63	65
(measured in anec Refrigerant piping		mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
diameter	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	111111 (111.)	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
I AIN	Air flow rate m³/min		210	210	360
	7 til 11017 Tato	L/s	3.500	3,500	6.000
		cfm	7,415	7,415	12,712
	Control, Driving me		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 pre		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	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	Pre-coated galvanized steel sheets	Pre-coated galvanized steel sheets
			(+powder coating for -BS type)	(+powder coating for -BS type)	(+powder coating for -BS type)
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>
External dimension	n HxWxD	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 High pressure protection devices		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 (COI		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
Refrigerant	Type x original ch	arge	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)	253 (558)	253 (558)	288 (635)
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	Header: CMY-Y104/108/1010-G	Header: CMY-Y104/108/1010-G

, .	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.)					

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)



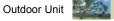


## ► Specifications

Model			PUHY-P550YSKA (-BS)	PUHY-P600YSKA (-BS)	PUHY-P650YSKA (-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	*1	kW	63.0	68.0	73.0
(Nominal)		kcal/h	55,000	60,000	65,000
	*1	BTU / h	215,000	232,000	249,100
	Power input	kW	16.07	18.18	19.78
	Current input	Α	27.1-25.7-24.8	30.6-29.1-28.1	33.3-31.7-30.5
	EER	kW / kW	3.92	3.74	3.69
Cooling capacity	*4	kW	63.9	69.4	74.5
Temp. range of	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)
cooling	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	*2	kW	63.0	68.0	73.0
(Nominal)		kcal/h	55,000	60,000	65,000
	*2	BTU / h	215,000	232,000	249,100
	Power input	kW	15.51	16.70	18.02
	Current input	Α	26.1-24.8-23.9	28.1-26.7-25.8	30.4-28.8-27.8
	COP	kW / kW	4.06	4.07	4.05
Temp. range of	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)
heating	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	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~47	P15~P250/2~50	P15~P250/2~50
Sound pressure le (measured in aned		dB <a></a>	63	63	64.5
Refrigerant piping	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
diameter	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-P250YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P400YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	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 me	chanism	Inverter-control, Direct-driven by motor		Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-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 pro	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	Inverter scroll her	metic 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	_	-	-	ı	_	_
External finish			Pre-coated galvanized steel sheets		Pre-coated galvanized steel sheets		Pre-coated galvanized steel sheets	
			(+powder coating for -BS type)		(+powder coatii		(+powder coating for -BS type)	
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 5y<="" td=""><td>8/1 or similar&gt;</td><td><munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td></munsell></td></munsell>	8/1 or similar>	<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td></munsell>	' 8/1 or similar>
External dimension	n HxWxD	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
	High pressure pro	otection	High pressure sensor,	High pressure switch	High pressure sensor, High pressure switch		High pressure sensor, High pressure switch	
devices			at 4.15 MP	a (601 psi)	at 4.15 MP	a (601 psi)	at 4.15 MF	Pa (601 psi)
	Inverter circuit (CO	MP./FAN)		Over-current protection	Over-heat protection, (		Over-heat protection,	Over-current protection
Refrigerant	Type x original ch	narge	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)	195 (430)	211 (466)	195 (430)	256 (565)	195 (430)	253 (558)
Heat exchanger	Heat exchanger		Salt-resistant cross	s fin & copper tube	Salt-resistant cross	s fin & copper tube	Salt-resistant cros	s fin & copper tube
Pipe between unit	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
and distributor	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	Optional parts		Outdoor Twinning k	it: CMY-Y100VBK3	Outdoor Twinning k	it: CMY-Y100VBK3	Outdoor Twinning k	cit: CMY-Y100VBK3
			Joint: CMY-Y1	102SS/LS-G2,	Joint: CMY-Y1	102SS/LS-G2,	Joint: CMY-Y	102SS/LS-G2,
			CMY-Y2	202S/302S-G2	CMY-Y2	202S/302S-G2	CMY-Y	202S/302S-G2
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G

, "	'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.)					



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

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

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





## ► Specifications

Model			PUHY-P700YSKA (-BS)	PUHY-P750YSKA (-BS)	PUHY-P800YSKA (-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	*1	kW	76.0	81.5	90.0
Nominal)		kcal/h	68,000	73,000	80,000
	*1	BTU / h	259,300	278,100	307,100
	Power input	kW	21.40	23.90	27.10
	Current input	Α	36.1-34.3-33.0	40.3-38.3-36.9	45.7-43.4-41.8
	EER	kW / kW	3.55	3.41	3.32
Cooling capacity	*4	kW	77.6	83.2	91.3
Temp. range of	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)
cooling	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	*2	kW	76.0	81.5	90.0
Nominal)		kcal/h	68,000	73,000	80,000
	*2	BTU / h	259,300	278,100	307,100
	Power input	kW	20.00	22.20	23.01
	Current input	Α	33.7-32.0-30.9	37.4-35.6-34.3	38.8-36.9-35.5
	COP	kW / kW	3.80	3.67	3.91
Temp. range of	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)
neating	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)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50	P15~P250/2~50
Sound pressure le measured in ane		dB <a></a>	64.5	65.5	66
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	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-P250YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P400YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	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 me	echanism	Inverter-control, Direct-driven by motor		Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	Inverter scroll her	metic 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 1="" 5y="" 8="" or="" similar=""></munsell>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <munsell 1="" 5y="" 8="" or="" similar=""></munsell>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <munsell 1="" 5y="" 8="" or="" similar=""></munsell>	
External dimensio	n HxWxD	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
		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 48-1/16 x 29-3/16
Protection	High pressure pr			High pressure switch		High pressure switch		High pressure switch
devices	3 , ,			a (601 psi)		Pa (601 psi)		a (601 psi)
	Inverter circuit (CC	MP./FAN)		protection,	Over-heat protection,		Over-heat protection,	
	,	,		nt protection	Over-current protection			nt protection
Refrigerant	Type x original cl	narge	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)	195 (430)	253 (558)	211 (466)	253 (558)	253 (558)	253 (558)
Heat exchanger			Salt-resistant cros	s fin & copper tube	Salt-resistant cros	s fin & copper tube	Salt-resistant cros	s fin & copper tube
Pipe between unit	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
and distributor	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 k	it: CMY-Y200VBK2	Outdoor Twinning I	kit: CMY-Y200VBK2	Outdoor Twinning I	it: CMY-Y200VBK2
			Joint: CMY-Y			102SS/LS-G2,	Joint: CMY-Y	
			CMY-Y2	202S/302S-G2	CMY-Y2	202S/302S-G2	CMY-Y	202S/302S-G2
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	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.)

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

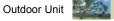




Model			PUHY-P850YSKA (-BS)	PUHY-P900YSKA (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity	*1	kW	93.0	96.0
(Nominal)		kcal/h	83,000	86,000
	*1	BTU / h	317,300	327,600
	Power input	kW	29.24	31.57
	Current input	Α	49.3-46.8-45.1	53.2-50.6-48.8
	EER	kW / kW	3.18	3.04
Cooling capacity	*4	kW	94.4	97.4
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	93.0	96.0
(Nominal)		kcal/h	83,000	86,000
	*2	BTU / h	317,300	327,600
	Power input	kW	25.40	28.07
	Current input	Α	42.8-40.7-39.2	47.3-45.0-43.3
	COP	kW / kW	3.66	3.42
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	66	66
(measured in ane	choic room)	UD \A>	00	00
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

diameter cas pipe min (iii.)		71.20(10	o) Diazea	71.20(10	o) Diazea			
Set Model								
Model			PUHY-P400YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)		
FAN Type x Quantity			Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1		
	Air flow rate	m³/min	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 me	echanism	Inverter-control, Dir	rect-driven by motor	Inverter-control, Dir	ect-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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic 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 galva	nized steel sheets	Pre-coated galvanized steel sheets			
				ing for -BS type)	(+powder coating for -BS type)			
			<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td><munsell 5y<="" td=""><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell></td></munsell>	' 8/1 or similar>	<munsell 5y<="" td=""><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimension	n HxWxD	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	High pressure pr	otection	High pressure sensor, High press	sure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
devices	Inverter circuit (CO	MP./FAN)	Over-heat protection,	Over-current protection	Over-heat protection, (	Over-current protection		
Refrigerant	Type x original ch	harge	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)	253 (558)	253 (558)	253 (558)	253 (558)		
Heat exchanger			Salt-resistant cros	s fin & copper tube	Salt-resistant cross	s fin & copper tube		
Pipe between uni	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed		
and distributor	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 I	kit: CMY-Y200VBK2	Outdoor Twinning k	Outdoor Twinning kit: CMY-Y200VBK2		
				G2, CMY-Y202S/302S-G2		62, CMY-Y202S/302S-G2		
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G		

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.)					



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

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

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



## ► Specifications

Model			PUHY-P950YSKA (-BS)	PUHY-P1000YSKA (-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	*1	kW	103.0	110.0
(Nominal)		kcal/h	89,000	98,000
	*1	BTU / h	351,400	375,300
	Power input	kW	34.21	36.78
	Current input	Α	57.7-54.8-52.8	62.0-58.9-56.8
	EER	kW / kW	3.01	2.99
Cooling capacity	*4	kW	105.2	112.3
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	103.0	110.0
Nominal)		kcal/h	89,000	98,000
	*2	BTU / h	351,400	375,300
	Power input	kW	30.56	33.13
	Current input	Α	51.5-49.0-47.2	55.9-53.1-51.2
	COP	kW / kW	3.37	3.32
emp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
eating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure level dB		dB <a></a>	67.5	68
measured in ane			12.22.000.2	12.22 (2.10.2)
Refrigerant piping		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter Set Model	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

diameter Cas pipe min (iii.)		71.20(1-3	io) Diazca	41.20 (1-5/0) Blazed		
		PUHY-P450YKA (-BS)	PUHY-P500YKA (-BS)	PUHY-P500YKA (-BS)	PUHY-P500YKA (-BS)	
FAN Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2	Propeller fan x 2	
Air flow rate	m³/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 me	echanism	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-driven by motor	
Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2	0.92 x 2	
External static pr	ess.	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	
Starting method		Inverter	Inverter	Inverter	Inverter	
Motor output	kW	12.4	13.3	13.3	13.3	
Case heater	kW	_	_	_	_	
		Pre-coated galva	nized steel sheets	Pre-coated galvanized steel sheets		
				(+powder coating for -BS type)		
		<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell>	' 8/1 or similar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
n HxWxD	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	
High pressure pr	otection	High pressure sensor, High press	sure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
Inverter circuit (CC	MP./FAN)	Over-heat protection, (	Over-current protection	Over-heat protection, (	Over-current protection	
Type x original cl		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)	
	kg (lbs)	253 (558)	288 (635)	288 (635)	288 (635)	
		Salt-resistant cros	s fin & copper tube	Salt-resistant cross	s fin & copper tube	
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	
				Outdoor Twinning k	tit: CMY-Y200VBK2	
		Joint: CMY-Y102SS/LS-C	62, CMY-Y202S/302S-G2	Joint: CMY-Y102SS/LS-C	62, CMY-Y202S/302S-G2	
		Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	
	Type x Quantity Air flow rate  Control, Driving m Motor output External static pi Type x Quantity Starting method Motor output Case heater  HxWxD  High pressure pr Inverter circuit (CC Type x original co	Type x Quantity  Air flow rate	Type x Quantity	Type x Quantity	Type x Quantity	

#### 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.)	

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)





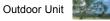
## ► Specifications

Model			PUHY-P1050YSKA (-BS)	PUHY-P1100YSKA (-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	*1	kW	115.0	121.5
(Nominal)		kcal/h	103,000	108,000
	*1	BTU / h	392,400	414,600
	Power input	kW	32.57	35.63
	Current input	Α	54.9-52.2-50.3	60.1-57.1-55.0
	EER	kW / kW	3.53	3.41
Cooling capacity	*4	kW	117.4	124.1
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	115.0	121.5
(Nominal)		kcal/h	103,000	108,000
	*2	BTU / h	392,400	414,600
	Power input	kW	31.50	33.80
	Current input	A	53.1-50.5-48.6	57.0-54.2-52.2
	COP	kW / kW	3.65	3.59
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	66.5	66.5
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set	M	od	lel

Model		PUHY-P300YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P450YKA (-BS)		
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	185	185	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 me	chanism	Inverter-	control, Direct-driven b	by motor	Inverter	-control, Direct-driven b	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 pre	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor	
	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			Pre-coated galvanized steel sheets			
			(+powder coating for -BS type)			(+powder coating for -BS type)			
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<mi< td=""><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></mi<>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimension	n HxWxD	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	High pressure pro	otection	High pressure sensor	High pressure switch	at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
devices	Inverter circuit (CO	MP./FAN)	Over-heat p	protection, Over-curren	t protection		protection, Over-curren		
Refrigerant	Type x original ch	narge	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)	211 (466)	211 (466)	253 (558)	211 (466)	256 (565)	253 (558)	
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp			
Pipe between unit	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	
and distributor 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			Twinning kit: CMY-Y3			Twinning kit: CMY-Y3			
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G	

, .	2 Nominal condition	IS .			
		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.)



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

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

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



## ► Specifications

Model			PUHY-P1150YSKA (-BS)	PUHY-P1200YSKA (-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	*1	kW	130.0	135.0
(Nominal)		kcal/h	115,000	120,000
	*1	BTU / h	443,600	460,600
	Power input	kW	38.80	40.66
	Current input	Α	65.5-62.2-59.9	68.6-65.2-62.8
	EER	kW / kW	3.35	3.32
Cooling capacity	*4	kW	132.7	137.8
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	130.0	135.0
(Nominal)		kcal/h	115,000	120,000
	*2	BTU / h	443,600	460,600
	Power input	kW	35.51	37.70
	Current input	Α	59.9-56.9-54.8	63.6-60.4-58.2
	COP	kW / kW	3.66	3.58
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	67.5	68
(measured in ane				
Refrigerant piping		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

ulametei	Gas pipe			41.20 (1-5/6) brazeu			41.20 (1-3/0) blazeu		
Set Model									
Model			PUHY-P350YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P400YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	210	210	210	210	210	210	
		L/s	3,500	3,500	3,500	3,500	3,500	3,500	
		cfm	7,415	7,415	7,415	7,415	7,415	7,415	
	Control, Driving me	chanism	Inverter-	control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor	
	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			Pre-coated galvanized steel sheets			
			(+powder coating for -BS type)			(+powder coating for -BS type)			
				<munsell 1="" 5y="" 8="" or="" similar=""> <munsell 1="" 5y="" 8="" or="" similar=""></munsell></munsell>					
External dimension	n HxWxD	mm	1,650 x 1,220 x 740				1,650 x 1,220 x 740		
		in.			65 x 48-1/16 x 29-3/16				
Protection	High pressure pr						High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer		
Refrigerant	Type x original cl				R410A x 11.5 kg (26 lbs)				
Net weight		kg (lbs)	256 (565)	253 (558)	253 (558)	253 (558)	253 (558)	253 (558)	
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp			
Pipe between unit		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	
and distributor	Gas pipe	mm (in.)	· '	28.58 (1-1/8) Brazed	. ,		28.58 (1-1/8) Brazed		
Optional parts				Twinning kit: CMY-Y3			r Twinning kit: CMY-Y3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
			Head	der: CMY-Y104/108/10	10-G	Hea	der: CMY-Y104/108/10	10-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.)

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

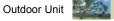
## ► Specifications



Model			PUHY-P1250YSKA (-BS)	PUHY-P1300YSKA (-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	*1	kW	138.0	141.0
(Nominal)		kcal/h	123,000	126,000
	*1	BTU / h	470,900	481,100
	Power input	kW	43.12	45.77
	Current input	Α	72.7-69.1-66.6	77.2-73.4-70.7
	EER	kW / kW	3.20	3.08
Cooling capacity	*4	kW	140.9	144.0
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	138.0	141.0
(Nominal)		kcal/h	123,000	126,000
	*2	BTU / h	470,900	481,100
	Power input	kW	40.35	42.98
	Current input	Α	68.1-64.7-62.3	72.5-68.9-66.4
	COP	kW / kW	3.42	3.28
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	68	68
(measured in ane				
Refrigerant piping		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

Set Model									
Model			PUHY-P400YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P400YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	210	210	210	210	210	210	
		L/s	3,500	3,500	3,500	3,500	3,500	3,500	
		cfm	7,415	7,415	7,415	7,415	7,415	7,415	
	Control, Driving me	echanism	Inverter-	-control, Direct-driven I	by motor	Inverter-	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor	
	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			Pre-co	ated galvanized steel	sheets	
			(+p	(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 1="" 5y="" 8="" or="" similar=""></munsell>				
External dimension	n HxWxD	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	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection	High pressure pre		High pressure sensor	, High pressure switch	at 4.15 MPa (601 psi)	High pressure sensor	, High pressure switch	at 4.15 MPa (601 psi)	
devices	Inverter circuit (CO	MP./FAN)	Over-heat	protection, Over-currer	t protection	Over-heat p	protection, Over-currer	t protection	
Refrigerant	Type x original ch	narge	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)	253 (558)	253 (558)	253 (558)	253 (558)	253 (558)	253 (558)	
Heat exchanger		Salt-re:	sistant cross fin & copp		Salt-res	sistant cross fin & copp	er tube		
Pipe between unit	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-Y3	00VBK3	Outdoor Twinning kit: CMY-Y300VBK3			
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G	

1,"	2 Nominal condition	1S			
		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.)



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).

\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

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

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





## ► Specifications

Model			PUHY-P1350YSKA (-BS)	PUHY-P1400YSKA (-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	*1	kW	144.0	151.0
(Nominal)		kcal/h	129,000	135,000
	*1	BTU / h	491,300	515,200
	Power input	kW	48.64	52.24
	Current input	Α	82.1-78.0-75.1	88.1-83.7-80.7
	EER	kW / kW	2.96	2.89
Cooling capacity	*4	kW	147.0	154.2
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	144.0	151.0
(Nominal)		kcal/h	129,000	135,000
	*2	BTU / h	491,300	515,200
	Power input	kW	46.15	49.50
	Current input	Α	77.9-74.0-71.3	83.5-79.3-76.5
	COP	kW / kW	3.12	3.05
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
neating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
ndoor unit	Total capacity	<u> </u>	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le	evel	dB <a></a>	68	60 5
(measured in ane	choic room)	ub <a></a>	00	68.5
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

didiffictor	Out pipe			+1.20 (1 0/0) Blazca			+1.20 (1 0/0) Blazca	
Set Model								
Model			PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P450YKA (-BS)	PUHY-P500YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate	m³/min	210	210	210	210	210	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 me	echanism	Inverter	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	pressor	Inverte	er scroll hermetic comp	oressor
	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			Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimensio	n HxWxD	mm	1,650 x 1,220 x 740		1,650 x 1,220 x 740		1,650 x 1,220 x 740	
		in.						65 x 68-15/16 x 29-3/16
Protection	High pressure pre				at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO			protection, Over-currer			protection, Over-currer	
Refrigerant	Type x original ch				R410A x 11.5 kg (26 lbs)			R410A x 11.8 kg (27 lbs)
Net weight		kg (lbs)	253 (558)	253 (558)	253 (558)	253 (558)	253 (558)	288 (635)
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp		
Pipe between unit		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	
and distributor	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				r Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-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.)	

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

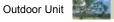


## ► Specifications

Model			PUHY-P1450YSKA (-BS)	PUHY-P1500YSKA (-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	*1	kW	158.0	165.0	
(Nominal)		kcal/h	141,000	147,000	
	*1	BTU / h	539,100	563,000	
	Power input	kW	55.83	59.56	
	Current input	Α	94.2-89.5-86.3	100.5-95.5-92.0	
	EER	kW / kW	2.83	2.77	
Cooling capacity	*4	kW	161.3	168.5	
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	
leating capacity	*2	kW	158.0	165.0	
Nominal)		kcal/h	141,000	147,000	
	*2	BTU / h	539,100	563,000	
	Power input	kW	52.49	56.12	
	Current input	Α	88.6-84.1-81.1	94.7-90.0-86.7	
	COP	kW / kW	3.01	2.94	
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	
neating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	
ndoor unit	Total capacity	•	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	
connectable Model / Quantity			P15~P250/2~50	P15~P250/2~50	
Sound pressure le measured in aned		dB <a></a>	69.5	70	
Refrigerant piping	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-P450YKA (-BS)	PUHY-P500YKA (-BS)	PUHY-P500YKA (-BS)	PUHY-P500YKA (-BS)	PUHY-P500YKA (-BS)	PUHY-P500YKA (-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	m³/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 me	echanism	Inverter	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor
	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			Pre-coated galvanized steel sheets		
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<mi< td=""><td>UNSELL 5Y 8/1 or simi</td><td>ilar&gt;</td><td><mi< td=""><td>UNSELL 5Y 8/1 or simi</td><td>lar&gt;</td></mi<></td></mi<>	UNSELL 5Y 8/1 or simi	ilar>	<mi< td=""><td>UNSELL 5Y 8/1 or simi</td><td>lar&gt;</td></mi<>	UNSELL 5Y 8/1 or simi	lar>
External dimension	n HxWxD	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	High pressure pre		High pressure sensor	, High pressure switch	at 4.15 MPa (601 psi)	High pressure sensor	, High pressure switch	at 4.15 MPa (601 psi)
devices	Inverter circuit (CO	MP./FAN)	Over-heat	protection, Over-currer	t protection	Over-heat	protection, Over-currer	t protection
Refrigerant	Type x original ch	narge	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)	253 (558)	288 (635)	288 (635)	288 (635)	288 (635)	288 (635)
Heat exchanger	Heat exchanger		Salt-re:	sistant cross fin & copp		Salt-res	sistant cross fin & copp	er tube
Pipe between unit	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
and distributor	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			Outdoo	Twinning kit: CMY-Y3	00VBK3	Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G

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.)							



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.

### ► Specifications



Model			PUHY-EP400YSKA (-BS)	PUHY-EP450YSKA (-BS)	PUHY-EP500YSKA (-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	*1	kW	44.8	50.4	56.0
(Nominal)		kcal/h	40,000	45,000	50,000
	*1	BTU / h	152,900	172,000	191,100
	Power input	kW	10.39	12.05	13.79
	Current input	Α	17.5-16.6-16.0	20.3-19.3-18.6	23.2-22.1-21.3
	EER	kW / kW	4.31	4.18	4.06
Cooling capacity	*4		45.4	51.1	56.8
Temp. range of	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)
cooling	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	*2	kW	44.8	50.4	56.0
(Nominal)		kcal/h	40,000	45,000	50,000
	*2	BTU / h	152,900	172,000	191,100
	Power input	kW	10.66	12.00	13.36
	Current input	Α	17.9-17.0-16.4	20.2-19.2-18.5	22.5-21.4-20.6
	COP	kW / kW	4.20	4.20	4.19
Temp. range of	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)
heating	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	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/1~34	P15~P250/1~39	P15~P250/1~43
Sound pressure level (measured in anechoic room) dB		dB <a></a>	60	60.5	61
Refrigerant piping	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
diameter	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-P200YKA (-BS)	PUHY-P200YKA (-BS)	PUHY-P200YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P250YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	175	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
	Control, Driving me	echanism	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	ect-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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverter scroll her	metic compressor	Inverter scroll her	metic compressor	Inverter scroll her	metic 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		Pre-coated galvanized steel sheets		Pre-coated galvanized steel sheets	
			(+powder coating for -BS type)		(+powder coating for -BS type)		(+powder coating for -BS type)	
			<munsell 5y<="" td=""><td colspan="2">ELL 5Y 8/1 or similar&gt; <munsell 1="" 5y="" 8="" or="" similar=""></munsell></td><td><munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td></munsell></td></munsell>	ELL 5Y 8/1 or similar> <munsell 1="" 5y="" 8="" or="" similar=""></munsell>		<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td></munsell>	' 8/1 or similar>	
External dimension	n HxWxD	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 920 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16
	High pressure pr	otection	High pressure sensor	, High pressure switch		High pressure switch	High pressure sensor	, High pressure switch
devices			at 4.15 MF	Pa (601 psi)	at 4.15 MPa (601 psi)		at 4.15 MPa (601 psi)	
	Inverter circuit (CO	MP./FAN)		Over-current protection		Over-current protection		Over-current protection
Refrigerant	Type x original ch	narge	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 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)	195 (430)	195 (430)	195 (430)	195 (430)	195 (430)	195 (430)
Heat exchanger		Salt-resistant cros	s fin & copper tube	Salt-resistant cross	s fin & copper tube	Salt-resistant cros	s fin & copper tube	
Pipe between unit	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
and distributor	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 k	it: CMY-Y100VBK3	Outdoor Twinning k	it: CMY-Y100VBK3	Outdoor Twinning k	it: CMY-Y100VBK3
			Joint: CMY-Y102SS/L	S-G2, CMY-Y202S-G2		S-G2, CMY-Y202S-G2	Joint: CMY-Y102SS/L	S-G2, CMY-Y202S-G2
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-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.) 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.)		

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)



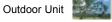
### ► Specifications

Model			PUHY-EP650YSKA (-BS)	PUHY-EP700YSKA (-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	*1	kW	73.5	80.0
(Nominal)		kcal/h	65,000	70,000
	*1	BTU / h	250,800	273,000
	Power input	kW	20.41	23.39
	Current input	Α	34.4-32.7-31.5	39.4-37.5-36.1
	EER	kW / kW	3.60	3.42
Cooling capacity	*4	kW	75.0	81.2
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	73.5	80.0
(Nominal)		kcal/h	65,000	70,000
	*2	BTU / h	250,800	273,000
	Power input	kW	18.70	20.25
	Current input	Α	31.5-29.9-28.9	34.1-32.4-31.3
	COP	kW / kW	3.93	3.95
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	64	64
Refrigerant piping		mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
Set Model	Cao pipe	[	20.00 (1 1/0) Blazed	04.00 (1-0/0) Blazed

Set	Model

Set Model			,		,	,	
Model			PUHY-P300YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	185	210	210	210	
		L/s	3,083	3,500	3,500	3,500	
		cfm	6,532	7,415	7,415	7,415	
	Control, Driving me	echanism	Inverter-control, Dir	ect-driven by motor	Inverter-control, Dir	rect-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 pr	ress.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	8.1	10.4	10.4	10.4	
	Case heater	kW	_	_	_	_	
External finish			Pre-coated galva	nized steel sheets	Pre-coated galvanized steel sheets		
				ng for -BS type)	(+powder coating for -BS type)		
			<munsell 5y<="" td=""><td>' 8/1 or similar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></munsell>	' 8/1 or similar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimension	n HxWxD	mm	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740	
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection	High pressure pr	otection	High pressure sensor, High press	sure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CC	MP./FAN)	Over-heat protection, 0	Over-current protection	Over-heat protection, Over-current protection		
Refrigerant	Type x original c	harge	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)	211 (466)	256 (565)	256 (565)	256 (565)	
Heat exchanger		Salt-resistant cros	s fin & copper tube	Salt-resistant cros	s fin & copper tube		
Pipe between unit Liquid pipe mm (in.)		12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed		
and distributor Gas pipe mm (in.)		22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed		
Optional parts		Outdoor Twinning k	kit: CMY-Y100VBK3	Outdoor Twinning k	kit: CMY-Y200VBK2		
			Joint: CMY-Y102SS/LS-C	S2, CMY-Y202S/302S-G2	Joint: CMY-Y102SS/LS-C	G2, CMY-Y202S/302S-G2	
			Header: CMY-Y	104/108/1010-G	Header: CMY-Y	104/108/1010-G	

, .	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.)							



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



### ► Specifications

Model			PUHY-EP750YSKA (-BS)	PUHY-EP800YSKA (-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	*1	kW	84.8	90.4
(Nominal)		kcal/h	75,000	80,000
	*1	BTU / h	289,300	308,400
	Power input	kW	21.14	23.00
	Current input	Α	35.6-33.9-32.6	38.8-36.8-35.5
	EER	kW / kW	4.01	3.93
Cooling capacity	*4	kW	86.6	92.3
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	84.8	90.4
(Nominal)		kcal/h	75,000	80,000
	*2	BTU / h	289,300	308,400
	Power input	kW	20.58	21.99
	Current input	Α	34.7-33.0-31.8	37.1-35.2-33.9
	COP	kW / kW	4.12	4.11
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
neating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	64	64
Refrigerant piping		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed	34.93 (1-3/8) Brazed

Set Model								
Model			PUHY-P200YKA (-BS)	PUHY-P200YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P200YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P350YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	175	175	210	175	175	210
		L/s	2,917	2,917	3,500	2,917	2,917	3,500
		cfm	6,179	6,179	7,415	6,179	6,179	7,415
	Control, Driving me	echanism	Inverter-	-control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	5.5	5.5	10.4	5.5	6.9	10.4
	Case heater	kW	_	-	-	-	_	_
External finish			Pre-coated galvanized steel sheets				pated galvanized steel	
			(+powder coating for -BS type)				owder coating for -BS	
			<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			****	UNSELL 5Y 8/1 or sim	
External dimension	n HxWxD	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.				65 x 36-1/4 x 29-3/16 65 x 36-1/4 x 29-3/16 65 x 48-1/16 x 29-3/16		
Protection	High pressure pre				at 4.15 MPa (601 psi)		, High pressure switch	
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer	
Refrigerant	Type x original ch				R410A x 11.5 kg (26 lbs)			
Net weight		kg (lbs)	195 (430)	195 (430)	256 (565)	195 (430)	195 (430)	256 (565)
	Heat exchanger			sistant cross fin & copp			sistant cross fin & copp	
Pipe between unit		mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	and distributor 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				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-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.)	

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

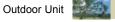


### ► Specifications

Model			PUHY-EP850YSKA (-BS)	PUHY-EP900YSKA (-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	*1	kW	96.0	101.5
(Nominal)		kcal/h	85,000	90,000
	*1	BTU / h	327,600	346,300
	Power input	kW	25.00	27.06
	Current input	A	42.2-40.0-38.6	45.6-43.3-41.8
	EER	kW / kW	3.84	3.75
Cooling capacity	*4	kW	98.0	103.6
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	96.0	101.5
(Nominal)		kcal/h	85,000	90,000
(Nominal)	*2	BTU / h	327,600	346,300
	Power input	kW	23.35	25.24
	Current input	A	39.4-37.4-36.0	42.6-40.4-39.0
	COP	kW / kW	4.11	4.02
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	64	65
Refrigerant piping		mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

	e ere pripe								
Set Model									
Model			PUHY-P250YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P250YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P350YKA (-BS)	
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m³/min	175	175	210	175	185	210	
		L/s	2,917	2,917	3,500	2,917	3,083	3,500	
		cfm	6,179	6,179	7,415	6,179	6,532	7,415	
	Control, Driving me	echanism	Inverter	-control, Direct-driven I	by motor	Inverter	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	ressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	
	Motor output	kW	6.9	6.9	10.4	6.9	8.1	10.4	
	Case heater	kW	_	_	-	-	_	_	
External finish			Pre-coated galvanized steel sheets			Pre-co	pated galvanized steel	sheets	
			(+powder coating for -BS type)			(+powder coating for -BS type)			
			<mi< td=""><td>JNSELL 5Y 8/1 or sim</td><td>ilar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></mi<>	JNSELL 5Y 8/1 or sim	ilar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>			
External dimensio	n HxWxD	mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740	
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	
Protection	High pressure pr						High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO			protection, Over-currer			protection, Over-currer		
Refrigerant	Type x original ch	narge			R410A x 11.5 kg (26 lbs)				
Net weight		kg (lbs)	195 (430)	195 (430)	256 (565)	195 (430)	211 (466)	256 (565)	
Heat exchanger			sistant cross fin & copp			sistant cross fin & copp			
Pipe between unit		mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	
and distributor	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				Twinning kit: CMY-Y3			r Twinning kit: CMY-Y3		
				102SS/LS-G2, CMY-Y			102SS/LS-G2, CMY-Y		
1			Head	der: CMY-Y104/108/10	10-G	Head	der: CMY-Y104/108/10	10-G	

1,"	*2 Nominal conditions											
		Indoor	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.)							



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.





### ► Specifications

Model			PUHY-EP950YSKA (-BS)	PUHY-EP1000YSKA (-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	*1	kW	107.0	113.5
Nominal)		kcal/h	95,000	100,000
	*1	BTU / h	365,100	387,300
	Power input	kW	29.23	32.06
	Current input	Α	49.3-46.8-45.1	54.1-51.4-49.5
	EER	kW / kW	3.66	3.54
Cooling capacity	*4	kW	109.2	115.9
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
ooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
leating capacity	*2	kW	107.0	113.5
Nominal)		kcal/h	95,000	100,000
	*2	BTU / h	365,100	387,300
	Power input	kW	27.22	28.80
	Current input	Α	45.9-43.6-42.0	48.6-46.1-44.5
	COP	kW / kW	3.93	3.94
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
neating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le measured in aned		dB <a></a>	66	66
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
liameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

ulametei	Gas pipe	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		41.20 (1-3/0) brazeu			41.20 (1-5/0) blazeu	
Set Model					,	,		
Model			PUHY-P300YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P300YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	185	185	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 me	chanism	Inverter	-control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	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 pro	ess.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	pressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	8.1	8.1	10.4	8.1	10.4	10.4
	Case heater	kW	_	_	-	-	_	-
External finish			Pre-coated galvanized steel sheets			Pre-co	pated galvanized steel	sheets
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<mi< td=""><td>JNSELL 5Y 8/1 or simi</td><td>ilar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></mi<>	JNSELL 5Y 8/1 or simi	ilar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimension	n HxWxD	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	7	1,650 x 1,220 x 740
		in.						65 x 48-1/16 x 29-3/16
Protection	High pressure pro						, High pressure switch	
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer	
Refrigerant	Type x original ch	narge	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)	211 (466)	211 (466)	256 (565)	211 (466)	256 (565)	256 (565)
Heat exchanger			Salt-re:	sistant cross fin & copp	er tube	Salt-re:	sistant cross fin & copp	er tube
Pipe between unit	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
and distributor	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-Y3	00VBK3	Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			'102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Hea	der: CMY-Y104/108/10	10-G

1,"	*2 Nominal conditions											
		Indoor	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.)							

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

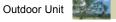


### ► Specifications

Model			PUHY-EP1050YSKA (-BS)	PUHY-EP1100YSKA (-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	*1	kW	120.0	125.0
(Nominal)		kcal/h	105,000	110,000
	*1	BTU / h	409,400	426,500
	Power input	kW	35.08	36.76
	Current input	Α	59.2-56.2-54.2	62.0-58.9-56.8
	EER	kW / kW	3.42	3.40
Cooling capacity	*4	kW	122.5	127.6
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity	*2	kW	120.0	125.0
(Nominal)		kcal/h	105,000	110,000
	*2	BTU / h	409,400	426,500
	Power input	kW	31.25	33.24
	Current input	Α	52.7-50.1-48.3	56.1-53.3-51.3
	COP	kW / kW	3.84	3.76
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
neating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
ndoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model / Quantity		P15~P250/2~50	P15~P250/2~50
Sound pressure le		dB <a></a>	66	67
(measured in ane	choic room)	UD \A>	00	01
Refrigerant piping	Liquid pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed	41.28 (1-5/8) Brazed

diameter	Odd pipc	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		41.20 (1-5/0) Diazca			41.20 (1-5/0) DIAZCO	
Set Model					,	,		
Model			PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P350YKA (-BS)	PUHY-P400YKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m³/min	210	210	210	210	210	210
		L/s	3,500	3,500	3,500	3,500	3,500	3,500
		cfm	7,415	7,415	7,415	7,415	7,415	7,415
	Control, Driving me	echanism	Inverter	-control, Direct-driven b	by motor	Inverter	-control, Direct-driven I	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 pr	ess.	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH₂O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH₂O)
Compressor	Type x Quantity		Inverte	er scroll hermetic comp	ressor	Inverte	er scroll hermetic comp	pressor
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	10.4	10.4	10.4	10.4	10.4	10.8
	Case heater	kW	_	_	-	-	_	_
External finish			Pre-coated galvanized steel sheets			Pre-co	pated galvanized steel	sheets
			(+powder coating for -BS type)			(+powder coating for -BS type)		
			<mi< td=""><td>JNSELL 5Y 8/1 or simi</td><td>ilar&gt;</td><td colspan="3"><munsell 1="" 5y="" 8="" or="" similar=""></munsell></td></mi<>	JNSELL 5Y 8/1 or simi	ilar>	<munsell 1="" 5y="" 8="" or="" similar=""></munsell>		
External dimension	n HxWxD	mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740			1,650 x 1,220 x 740	
		in.		65 x 48-1/16 x 29-3/16			65 x 48-1/16 x 29-3/16	
Protection	High pressure pre				at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
devices	Inverter circuit (CO			protection, Over-curren			protection, Over-currer	
Refrigerant	Type x original ch	narge			R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)		
Net weight		kg (lbs)	256 (565)	256 (565)	256 (565)	256 (565)	256 (565)	253 (558)
Heat exchanger				sistant cross fin & copp			sistant cross fin & copp	
Pipe between unit	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
and distributor	Gas pipe	mm (in.)			28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed	
Optional parts				Twinning kit: CMY-Y3		Outdoor Twinning kit: CMY-Y300VBK3		
				102SS/LS-G2, CMY-Y			'102SS/LS-G2, CMY-Y	
			Head	der: CMY-Y104/108/10	10-G	Hea	der: CMY-Y104/108/10	10-G

, .	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.)							



<sup>\*3</sup> External static pressure option is available (30Pa, 60Pa / 3.1mmH<sub>2</sub>O, 6.1mmH<sub>2</sub>O).
\*4 Reference data under condition of Indoor 27°C DB/19.5°C WB(81°F DB/67°F WB) Outdoor 35°C DB(95°F DB)

<sup>\*</sup>Nominal condition \*1,\*2 are subject to JIS B8615-2.
\*Due to continuing improvement, above specification may be subject to change without notice.



## I ndoor Unit

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

## Wide Selection of Indoor Units

	Тур	е	Model name	Model	P15	P20	P25	
		4-way air flow	PLFY-P VBM-E Page65 - Page66  PLFY-P VCM-E2 Page65 - Page66				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Ceiling Cassette	2-way air flow	PLFY-P VLMD-E					
		1-way air flow	PMFY-P VBM-E Page70 - Page71					
			PEFY-P VMR-E-L/R Page72 - Page73				i i	
			PEFY-P VMS1(L)-E  Page74 - Page75				<u> </u>	1
	Ceiling Concealed	I	PEFY-P VMA(L)-E				<u> </u>	
			PEFY-P VMA3-E Page76 - Page77				 	
			PEFY-P VMH(S)-E			 	: 	: ! ! !
		Fresh Air Intake	PEFY-P VMH-E-F Page80 - Page81			 	1	i i i i
	Ceiling Suspende	d	PCFY-P VKM-E Page82 - Page83			 	1	1
			PKFY-P VBM-E Page84 - Page85			! ! !!	1	 
	Wall Mounted		PKFY-P VHM-E Page84 - Page85			 		 
			PKFY-P VKM-E Page84 - Page85				: : : : : : :	: 
			PFFY-P VKM-E2  Page86 - Page87				i 	
	Floor Standing/ Floor Mounted Co	ncealed	PFFY-P VLEM-E Page88 - Page89					i i
64			PFFY-P VLRM-E PFFY-P VLRMM-E Page90 - Page91				!	

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	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
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# INDOOR UNIT Ceiling cassette type 4-way airflow

## PLFY-P VBM-E Fisce Sensor PLFY-P VCM-E2





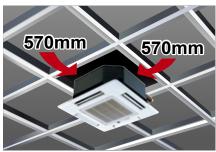
PLFY-P VBM

PLFY-P VCM

The new 4-way cassette VBM offers 72 different airflow patterns, making it ideal for applications with ceilings up to 4.2 m (13-13/16ft) in height.



Compact body to match with 2 feets (600mm) x 2 feets (600mm) ceiling design (VCM)



#### **Automatic Air Speed Adjustment**

Auto-fan-speed mode enables speedy and comfortable heating during heating startup.

The Auto-fan-speed mode is added to the usual four steps "Low, Mid1, Mid2, High." The Auto-fan-speed mode enables speedy and comfortable air conditioning because the air flow speeds up when starting, and air flow slows down when the air conditioning becomes stable. (PLFY-P VBM-E ONLY)



\* When using a wireless remote controller, initial settings are required.

#### **Draft-less Air Distribution**

The horizontal blow mode\* newly employed supplies airflow horizontally not bringing cooled/warmed air directly to occupants thus preventing discomfort sensation due to excessive cooling or direct exposing of occupants to the air blow. (PLFY-P VBM-E ONLY)



\*Default

\*The ceiling may be smudged at a spot where the supplied airflow is seriously disturbed.

#### Wide Air Flow (PLFY-P VBM-E ONLY)

#### Cooling softly with Wide Air Flow

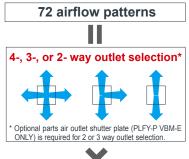
Discharge air reaches wider area and the fan speed is decreased by 20% thanks to the new wide shape air outlet.

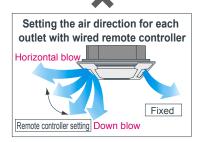


72 patterns of airflow to accommodate any room layout are available.

\*On the commercial air conditioners (According to the survey by Mitsubishi Electric)

The number of outlet can be set to 4, 3, or 2. Flexible airflow is available by fixing the up-down airflow direction of the outlet with a wired remote controller (or manually).

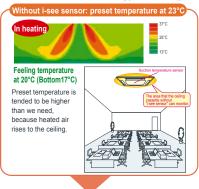


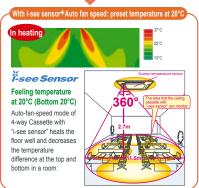


#### "i-see sensor" can be used with ceiling cassette type 4-way airflow unit. (Option PAC-SA1ME-E, PLFY-VBM-E ONLY)

New 4-way Cassette PLFY-VBM controls the temperature difference at the top and bottom in a room by checking the floor temperature with "i-see sensor". Comfortable air conditioning can be realized smoothly with "sensible temperature control." (Option PAC-SA1ME-E, PLFY-VBM-E ONLY)

### Prevents overcooling/overheating, and improves comfort/energy-efficiency







## **►** Specifications

				PLFY-P32VBM-E	PLFY-P40VBM-E	PLFY-P50VBM-E	PLFY-P63VBM-E	PLFY-P80VBM-E	PLFY-P100VBM-E	PLFY-P125VBM-E
Power	source					1-phase 220-	240V 50Hz / 1-phas	e 220V 60Hz		
0		*1	kW	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Cooling	capacity	*1	BTU/h	12,300	15,400	19,100	24,200	30,700	38,200	47,800
Cooling	capacity	*4	kW	3.7	4.6	5.7	7.2	9.2	11.4	14.2
Hooting	a conocity	, *1	kW	4.0	5.0	6.3	8.0	10.0	12.5	16.0
пеаші	g capacity	*1	BTU/h	13,600	17,100	21,500	27,300	34,100	42,700	54,600
Power		Cooling	kW	0.03	0.0	04	0.05	0.07	0.15	0.16
consum	nption	Heating	kW	0.02	0.0	03	0.04	0.06	0.14	0.15
Current		Cooling	Α	0.27	0.:	29	0.36	0.51	1.00	1.07
Current	L	Heating	Α	0.20	0.:	22	0.29	0.43	0.94	1.00
Externa	al finish	Unit				G	alvanized steel she	et		
(Munse	ell No.)	Panel					White (6.4Y 8.9/0.4)			
Dimens		Unit	mm(in.)		258 x 840 x	840 (10-3/16 x 33-			298 x 840 x 840 (11-	3/4 x 33-1/8 x 33-1/8)
HxWx	D	Panel	mm(in.)			35 x 950 x	950 (1-3/8 x 37-7/16	6 x 37-7/16)		
Net wei	iaht	Unit	kg(lbs.)		22 (49)		23 (	(51)	27	(60)
INCL WE	igiit	Panel	kg(lbs.)				6 (	-,		
Heat ex	changer					Cross fin (Alu	minum plate fin and	copper tube)		
	Type x 0	Quantity					Turbo fan x 1			
	Airflow r	ate *2	m³/min	11-12-13-14		-14-16	14-15-16-18	16-18-20-22	21-24-27-29	22-25-28-30
Fan	(Lo-Mid1-		L/s	183-200-217-233		-233-267	233-250-267-300	267-300-333-367	350-400-450-483	367-417-467-500
	L`		cfm	388-424-459-494	424-459	-494-565	494-530-565-636	565-636-706-777	742-848-953-1024	777-883-989-1059
	External stat	tic pressure	Pa				0			
Motor	Туре						DC motor			
	Output		kW			0.050			0.1	20
Air filter	r					Г	PP Honeycomb		Г	
Refrige	rant	Gas (Flare)	mm(in.)	ø12.7	(ø1/2)	ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)	ø15.88	8(ø5/8)	ø15.88 (ø5/8) / (Comp	
pipe dia	ameter	Liquid (Flare)	mm(in.)	ø6.35	(ø1/4)	ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)		ø9.52	! (ø3/8)	
Field dr	ain pipe d	iameter	mm(in.)				O.D. 32 (1-1/4)			
	pressure I1-Mid2-Hi		dB(A)	27-28-29-31	27-28-	-30-31	28-29-30-32	30-32-35-37	34-37-39-41	35-38-41-43

				PLFY-P15VCM-E2	PLFY-P20VCM-E2	PLFY-P25VCM-E2	PLFY-P32VCM-E2	PLFY-P40VCM-E2
Power	source					1-phase 220-240V 50Hz		
Coolin	g capacit	., *1	kW	1.7	2.2	2.8	3.6	4.5
Coomi	y capacit	<sup>y</sup> *1	BTU/h	5,800	7,500	9,600	12,300	15,400
Coolin	g capacit	y *4	kW	1.7	2.2	2.8	3.7	4.6
Heatin	q capacit	v *1	kW	1.9	2.5	3,2	4.0	5.0
	<u> </u>	, <u>, , 1</u>	BTU/h	6,500	8,500	10,900	13,600	17,100
Power		Cooling	kW	0.04	0.05	0.05	0.06	0.06
consur	mption	Heating	kW	0.04	0.05	0.05	0.06	0.06
Curren	nt	Cooling	Α	0.19	0.23	0.23	0.28	0.28
Curren		Heating	Α	0.19	0.23	0.23	0.28	0.28
Extern	al finish	Unit			Galvanize	d steel sheet with gray heat	insulation	
(Muns	ell No.)	Panel				White (6.4Y 8.9/0.4)		
Dimen	sion	Unit	mm(in.)		208 x :	570 x 570 (8-1/4 x 22-1/2 x 2	22-1/2)	
HxWx	k D	Panel	mm(in.)		20 x 6	50 x 650 (13/16 x 25-5/8 x 2	25-5/8)	
N1-4		Unit	kg(lbs.)		15.5 (35)		17	(38)
Net we	eignt	Panel	kg(lbs.)		3 (7)		3	(7)
Heat e	xchangei				Cross	fin (Aluminum fin and coppe	r tube)	, ,
	Type x	Quantity				Turbo fan x 1		
	Airflow	rate *2	m³/min	8-8.5-9	8-9-10	8-9-10	8-9-11	8-9-11
Fan	(Lo-Mid	-Hi)	L/s	133-142-150	133-150-167	133-150-167	133-150-183	133-150-183
			cfm	283-300-353	283-318-353	283-318-353	283-318-388	283-318-388
	Externa	l static ressure	Pa			0		
Motor	Туре					1-phase induction motor		
IVIOLOI	Outp	ut	kW	0.008	0.011	0.015	0.02	0.02
Air filte	er				PP I	Honeycomb fabric (long life	type)	
Refrige	erant	Gas(Flare)	mm(in.)			ø12.7 (ø1/2)		
pipe di	iameter	Liquid(Flare)	mm(in.)			ø6.35 (ø1/4)		
Field d	rain pipe	diameter	mm(in.)		O.D. 32 (	1-1/4) (PVC pipe VP-25 con	nectable)	
Sound (Lo-M	pressure id-Hi)	level *2 *3	dB(A)	28-30-31	28-31-35	29-31-37	29-33-38	30-34-39

- \*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
- $^{\star}2 \ \ \text{Airflow rate/Sound pressure level are in \ (low-middle-high) or (low-middle1-middle2-high)}.$
- $^{\star}3$   $\,$  It is measured in anechoic room at power source 230V.
- $^{*}4~~Reference~data~under~condition~of~Indoor~27^{\circ}C(81^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.$

# INDOOR UNIT Ceiling cassette type 2-way airflow

### PLFY-P VLMD-E

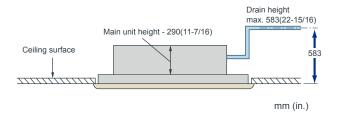


#### Slim body of 290mm(11-7/16in.) height



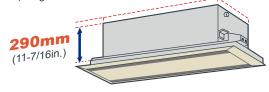
### Equipped with drain pump mechanism as standard

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



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

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



Terminal block on outside of main unit makes wiring easier

#### Compact unit and low noise level attained!

Sound pressure level table (Standard static pressure) at 0Pa

											dB(A)
	Capa	city	P20	P25	P32	P40	P50	P63	P80	P100	P125
Sound pressure		High		33		36	37	39	39	42	46
Level	Fan Speed	Mid		30		33	34	37	36	39	42/44
	.,	Low		27		29	31	32	33	36	40

<220V,240V>

											dB(A)
	Capa	city	P20	P25	P32	P40	P50	P63	P80	P100	P125
Sound pressure		High		34		37	38	40	40	43	46
Level	Fan Speed	Mid		31		34	35	38	37	41	42/44
	Ороса	Low		28		30	32	33	34	37	40

<230V>

#### Fresh air directly taken in

Fresh air can be taken in to the main unit directly (optional accessories needed.)

#### Long life filter equipped as standard

The antibacterial long life filter does not require maintenance for approximately a year.

#### **Easy installation**

Lighter panel and placing the electric board near the panel make installation and maintenance easier. Also, the heat exchanger is washable by displacing the center panel, filter, and fan.

## **►** Specifications

				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				
COOMING	Capacity	*1	BTU/h	7,500	9,600	12,300	15,400				
Cooling	capacity	/ *4	kW	2.2	2.8	3.7	4.6				
Heating	capacit	, *1	kW	2.5	3.2	4.0	5.0				
	, oupdoit	*1	BTU/h	8,500	10,900	13,600	17,100				
Power		Cooling	kW	0.072 / 0.075	0.072 / 0.075	0.072 / 0.075	0.081 / 0.085				
consun	nption	Heating	kW	0.065 / 0.069	0.065 / 0.069	0.065 / 0.069	0.074 / 0.079				
Curren		Cooling	Α	0.36 / 0.37	0.36 / 0.37	0.36 / 0.37	0.40 / 0.42				
		Heating	Α	0.30 / 0.32	0.30 / 0.32	0.30 / 0.32	0.34 / 0.37				
Externa		Unit			Galvanized						
(Munse	ll No.)	Panel			Pure white (						
Dimensi	on	Unit	mm (in.)		•	-7/16 x 30-9/16 x 25)					
HxWx	D	Panel	mm (in.)		20 x 1080 x 710 (13/16 x 42-9/16 x 28)						
Net we	iaht	Unit	kg(lbs.)	23 (	(53)						
INC. WC	giit	Panel	kg(lbs.)		6.5	(15)					
Heat ex	changer				Cros	ss fin					
	Type x	Quantity			Turbo	fan x 1					
	Airflow	rate *2	m³/min		6.5-8.0-9.5		7.0-8.5-10.5				
Fan	(Lo-Mid	-Hi)	L/s		108-133-158		117-142-175				
	`	,	cfm		230-283-335		247-300-371				
		atic pressure	Pa		(						
Motor	Туре				1-phase ind						
	Output		kW		0.015 (a						
Air filte	•	,			PP honeycomb fal						
Refrige		Gas(Flare)	mm(in.)		ø12.7	· /					
pipe dia	ameter	Liquid(Flare)	mm(in.)		ø6.35	, ,					
	ain pipe o		mm(in.)		O.D.32	(1-1/4)					
	essure level		dB(A)		27-30-33		29-33-36				
(Lo-Mid-F	i) *2 *3	230V	dB(A)	<u> </u>	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		. *1	kW	5.6	7.1	9.0	11.2	14.0
Cooling	capacit	y *1	BTU/h	19,100	24,200	30,700	38,200	47,800
Cooling	capacit	y *4	kW	5.7	7.2	9.2	11.4	14.2
Lleating		*1	kW	6.3	8.0	10.0	12.5	16.0
пеаші	g capacit	<sup>y</sup> *1	BTU/h	21,500	27,300	34,100	42,700	54,600
Power		Cooling	kW	0.082 / 0.086	0.101 / 0.105	0.147 / 0.156	0.157 / 0.186	0.28 / 0.28
consun	nption	Heating	kW	0.075 / 0.080	0.094 / 0.099	0.140 / 0.150	0.150 / 0.180	0.27 / 0.27
Curren		Cooling	Α	0.41 / 0.43	0.49 / 0.51	0.72 / 0.74	0.75 / 0.88	1.35 / 1.35
Curren	ι	Heating	Α	0.35 / 0.38	0.43 / 0.46	0.66 / 0.69	0.69 / 0.83	1.33 / 1.33
Externa	al finish	Unit				Galvanized steel plate		
(Munse	ell No.)	Panel				Pure white (6.4Y 8.9 / 0.4)		
Dimens	sion	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)
HxW	x D	Panel	mm (in.)	20 x 1250 x 710 (1	3/16 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)
Natura	inht	Unit	kg(lbs.)	27 (60)	28 (62)	44 (98)	47 (104)	56 (124)
Net we	igni	Panel	kg(lbs.)	7.5	(17)	12.5	(28)	13.0 (29)
Heat ex	kchanger					Cross fin		
	Туре х	Quantity		Turbo	fan x 1	Turbo	fan x 2	Sirocco fan x 4
	Airflow	rate *2	m³/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
Fan	(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-N	lid2-Mid1-Hi)	cfm	318-388-441	353-459-547	547-653-777	618-742-883	848-953-1,059-1,165
	External sta	atic pressure	Pa			0		
Motor	Туре					1-phase induction motor		
WIOTOI	Output		kW	0.020 (a	at 240V)	0.020 (at 240V)	0.030 (at 240V)	0.078 x 2 (at 240V)
Air filte						1.6.1.1.01.116.1	,	Synthetic fiber unwoven
All lille					PPI	noneycomb fabric (long life t	ype)	cloth filter (long life)
Refrige	rant	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)		ø15.88	(ø5/8)	
pipe dia	ameter	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)		ø9.52	(ø3/8)	
Field dr	ain pipe	diameter	mm(in.)			O.D.32 (1-1/4)		
Sound pre	essure level	220V,240V	dB(A)	31-34-37	32-37-39	33-36-39	36-39-42	40-42-44-46
(Lo-Mid-H	li) *2 *3	230V	dB(A)	32-35-38	33-38-40	34-37-40	37-41-43	(Lo-Mid2-Mid1-Hi)

- \*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
- $^{\star}2 \ \ \text{Airflow rate/Sound pressure level are in \ (low-middle-high) or \ (low-middle2-middle1-high)}.$
- \*3 It is measured in anechoic room.
- \*4 Reference data under condition of Indoor 27°C(81°F)DB/19.5°C(67°F)WB, Outdoor 35°C(95°F)DB

# INDOOR UNIT Ceiling cassette type 1-way airflow

### PMFY-P VBM-E



## Compact and lightweight body perfect for limited ceiling space applications.



### Compact size for smooth installation and maintenance

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

#### **Quiet operation**

Newly developed airflow control technology reduces noise level to only 27dB (P20VBM) for industry-leading quiet performance.

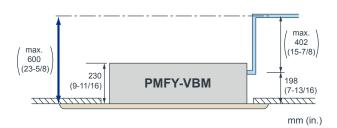
#### Sound pressure level table

Sound pre	essure	ievei t	anie			
	Сара	city	P20	P25	P32	P40
Sound		High	35	3	7	39
pressure	Fan	Mid 1	33	3	37	
level	Speed	Mid 2	30	3	4	35
		Low	27	3	2	33

<220V,240V>

#### Drain pump

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



## **►** Specifications

				PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E				
Power	source				1-phase 220-240V 50H	z / 1-phase 220V 60Hz					
Cooling capacit		. *1	kW	2.2	2.8	3.6	4.5				
Coomi	y capacit	<sup>y</sup> *1	BTU/h	7,500	9,600	12,300	15,400				
Cooling	g capacity	y *4	kW	2.2	2.8	3.7	4.6				
Heating	a capacit	, *1	kW	2.5	3.2	4.0	5.0				
Heating	y capacit	<sup>y</sup> *1	BTU/h	8,500	10,900	13,600	17,100				
Power		Cooling	kW	0.042	0.0	44	0.054				
consun	nption	Heating	kW	0.042	0.0	44	0.054				
Curren		Cooling	Α	0.20	0.2	21	0.26				
Guilell	ı	Heating	Α	0.20	0.2	21	0.26				
Externa	al finish (	Munsell N	No.)		White (0.98)	Y 8.99/0.63)					
Dimens		Unit	mm(in.)		230 x 812 x 395 (9-1	1/16 x 32 x 15-9/16)					
H x W	x D	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)							
INCI WC	igiit	Panel	kg(lbs.)		3 (	7)					
Heat ex	xchanger	•			Cross fin (Aluminum pla	ite fin and copper tube)					
	Туре			Line flow fan x 1							
	Airflow	rate *2	m³/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				
Fan		-Mid1-Hi)	L/s	108-120-133-145	122-133-	143-155	128-145-162-178				
	<u>'</u>	cfm		230-254-283-307	230-254-283-307 258-283-304-328 2						
		aticpressure	Pa		C	<u>'</u>					
Motor	Туре				1-phase indu	uction motor					
	Output		kW		0.0						
Air filte					PP Honeyo	omb fabric					
Refrige		Gas(Flare)	mm(in.)		ø12.7	(ø1/2)					
pipe dia	ameter	Liquid(Flare)	mm(in.)		ø6.35	(ø1/4)					
Field dr	ain pipe o	diameter	mm(in.)		O.D. 2	26 (1)					
	pressure 12-Mid1-H		dB(A)	27-30-33-35	32-34-	36-37	33-35-37-39				

- \*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.
- $^{\star}4~~Reference~data~under~condition~of~Indoor~27^{\circ}C(81^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.$

## INDOOR UNIT Ceiling concealed type

### PEFY-P VMR-E-L/R

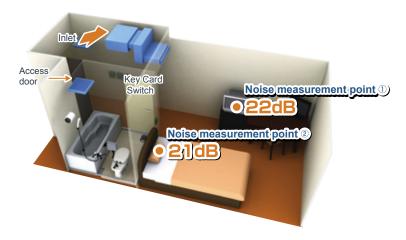


Width **640**mm <sub>25-6/32in.</sub>

Ultra Low Noise Piping connection
L model
R model



Problem solver for residential hotels, museums, libraries, or hospitals where low noise is especially a must!



#### Operable by key card switch

It is possible to operate  $\slash\hspace{-0.6em}$  stop by taking a key card in and out.

#### Ultra low noise

Quiet indoor environment can be achieved with 21dB around the bed and 22dB around the desk.

\*The noise level may differ by the room size or the setting of the unit.

#### Enables to install for symmetric design room

Left or right piping and control boxes are available depending on the layout of each room. Plus, as in the above figure, easy maintenance is possible from the access door in the bathroom. \*Seen from the front, the pipe and control box are on the right side for -R models.

#### **Easy Maintenance**

Drain pan and heat exchangers are washable from the access door in the bathroom, making maintenance easy and cost saving.

#### **Energy saving**

Energy saving can be realized by preventing us from failing to switch off of the air conditioners with a centralized system when no one is in the room.

Note: Compact and simple controllers, designed specifically to control only start/stop, fan speed and temperature can be set in each room for the occupants' enhanced individual comfort.

				PEFY-P20VMR-E-L	PEFY-P25VMR-E-L	PEFY-P32VMR-E-L					
Power	source			1-pha	ase 220-230-240V 50Hz / 1-phase 220-230V 6	0Hz					
Caalin		*1	kW	2.2	2.8	3.6					
Cooling	g capacit	y *1	BTU/h	7,500	9,600	12,300					
Cooling	g capacit	y *4	kW	2.2	2.8	3.7					
Hooting	g capacit	*1	kW	2.5	3.2	4.0					
пеашц	y capacii	·y *1	BTU/h	8,500	10,900	13,600					
Power		Cooling	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08					
consur	nption	Heating	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08					
Curren		Cooling	Α	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38					
Curren	ι	Heating	Α	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38					
External finish					Galvanized						
Dimension Rear inlet mm (in.)					292 x 640 x 580 (11-1/2 x 25-1/4 x 22-7/8)						
H x W x D Bottom inlet mm (in.)			mm (in.)		300 x 640 x 570 (11-7/8 x 25-1/4 x 22-1/2)						
Net we	ight		kg(lbs.)	18 (40)							
Heat e	xchange	r		Cross fin (Aluminum fin and copper tube)							
	Туре х	Quantity			Sirocco fan x 1						
	Airflow	roto	m³/min	4.8-5.	8-7.9	4.8-5.8-9.3					
Fan	(Lo-Mic		L/s	80-97	7-132	80-97-155					
ıaıı	(LO-IVIIC	ı-ı ıı <i>)</i>	cfm	170-20	05-279	170-205-328					
	Externa		Pa		5						
	Туре				1-phase induction motor						
Motor	Output		kW	0.0	118	0.023					
Air filte	r				PP Honeycomb fabric (washable)						
Refrige	erant	Gas	mm(in.)		ø12.7 (ø1/2) Brazed						
pipe di	ameter	Liquid	mm(in.)		ø6.35 (ø1/4) Brazed						
Field di	ain pipe	diameter	mm(in.)		O.D. 26 (1)						
Sound	pressure	220V		20-2	5-30	20-25-33					
	o-Mid-Hi)		dB(A)	21-2	6-32	21-26-35					
.5 F G ( L	*3	240V		22-2	7-30	22-27-33					
				PEFY-P20VMR-E-R	PEFY-P25VMR-E-R	PEFY-P32VMR-E-R					
Power	cource			1 nh:	200_230_240\/ 50Hz / 1_phase 220_230\/ 6	0H-z					

				PEFY-P20VMR-E-R	PEFY-P25VMR-E-R	PEFY-P32VMR-E-R					
Power	source			1-pha	ase 220-230-240V 50Hz / 1-phase 220-230V	60Hz					
Caslin		*1	kW	2.2	2.8	3.6					
Cooling	y capac	*1	BTU/h	7,500	9,600	12,300					
Cooling	g capac	ity *4	kW	2.2	2.8	3.7					
Heating	n cana	sity *1	kW	2.5	3.2	4.0					
Ticating	g capa	*1	BTU/h	8,500	10,900	13,600					
Power		Cooling	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08					
consur	nption	Heating	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08					
Curren	ŧ	Cooling	Α	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38					
	-	Heating	Α	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38					
Externa	External finish				Galvanized						
Dimens		Rear inlet	mm (in.)		292 x 640 x 580 (11-1/2 x 25-1/4 x 22-7/8)						
H x W	x D	Bottom inlet	mm (in.)		300 x 640 x 570 (11-7/8 x 25-1/4 x 22-1/2)						
Net we			kg(lbs.)		18 (40)						
Heat e	<del></del>			Cross fin (Aluminum fin and copper tube)							
	Туре	x Quantity			Sirocco fan x 1						
	Airflo	v rate	m³/min	4.8-5.		4.8-5.8-9.3					
Fan	(Lo-M		L/s	80-97	-	80-97-155					
	`	,	cfm	170-20	05-279	170-205-328					
		nal static	Pa		5						
	press	ure *2			<u> </u>						
Motor	Туре				1-phase induction motor						
	Outpu	ıt	kW	0.0	• •	0.023					
Air filte					PP Honeycomb fabric (washable)						
Refrige		Gas	mm(in.)		ø12.7 (ø1/2) Brazed						
pipe di			mm(in.)		ø6.35 (ø1/4) Brazed						
Field di	raın pip	diameter	mm(in.)		O.D. 26(1)						
Sound	pressur			20-2		20-25-33					
level (L	o-Mid-H	i) 230V	dB(A)	21-2		21-26-35					
	*3	240V		22-2	7-30	22-27-33					

- \*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
- $^{*}2$  The external static pressure is set to 5Pa (at 220V, 230V, 240V).
- \*3 Measured in anechoic room. Sound pressure levels of the unit with a rear air inlet. (Sound pressure levels are higher than the unit with a bottom air inlet.)
- $^{\star}4~Reference~data~under~condition~of~Indoor~27^{\circ}C(81^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB$

# INDOOR UNIT Ceiling concealed type

# PEFY-P VMS1(L)-E





Height **200mm** 7-28/32in.

Low Noise

Width **790**mm

Width 990mm

Width 1,190mm

The ultra thin unit of 200mm offers increased flexibility, and is particularly suitable for places where low noise operation is desired from a slim line body.



# Changeable static pressure

The unit is made suitable for a variety of applications with its four static pressure settings of 5, 15, 35, 50Pa.

#### Changeable airflow rate

Low, middle, and high fan speed settings deliver precise comfort.

## Choice for drain pump

Drain pump is an optional part for the VMS1L, and a standard for VMS1.

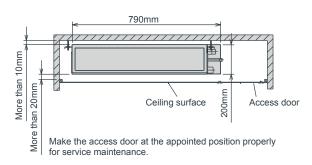
\*For places where low noise operation is especially required (i.e. Hotels), VMS1L (without drain pump) is recommended.

#### PP Honeycomb fabric

Washable PP Honeycomb fabric filter as standard

Ultra low height unit with 200mm (7-28/32in.) high Ultra-narrow width of 790mm (P15-P32 models) [990mm for P40,50 models / 1190mm for P63 models]

Can be installed easily in tight spaces, such as ceiling cavities or drop-ceilings.



# Reduced noise thanks to the use of newly designed centrifugal fan and coil

Sound pressure level table (Standard static pressure) at 15Pa

									dB(A)
	Capa	city	P15	P20	P25	P32	P40	P50	P63
Sound pressure		High	28	29	30	32	33	35	36
Level	Fan Speed	Mid	24	25	26	27	30	32	33
	2,000	Low	22	23	24	24	28	30	30

				PEFY-P15VMS1(L)-E	PEFY-P20VMS1(L)-E	PEFY-P25VMS1(L)-E	PEFY-P32VMS1(L)-E	PEFY-P40VMS1(L)-E	PEFY-P50VMS1(L)-E	PEFY-P63VMS1(L)-E					
Power	source	<del></del>		( )	( )	( )	0V 50Hz / 1-phase	( )	( )	( )					
0		*1	kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1					
Cooling	capa	*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100	24,200					
Cooling	capa	city *4	kW	1.7	2.2	2.8	3.7	4.6	5.7	7.2					
Heating	cana	*1	kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0					
Tieating	y capa	*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500	27,300					
Power	*3	Cooling	kW	0.05 [0.03]	0.05 [0.03]	0.06 [0.04]	0.07 [0.05]	0.07 [0.05]	0.09 [0.07]	0.09 [0.07]					
consum	nption	Heating	kW	0.03 [0.03]	0.03 [0.03]	0.04 [0.04]	0.05 [0.05]	0.05 [0.05]	0.07 [0.07]	0.07 [0.07]					
Current	*3	Cooling	Α	0.42 [0.31]	0.47 [0.36]	0.50 [0.39]	0.50 [0.39]	0.56 [0.45]	0.67 [0.56]	0.72 [0.61]					
Ouricin		Heating	Α	0.31 [0.31]	0.36 [0.36]	0.39 [0.39]	0.39 [0.39]	0.45 [0.45]	0.56 [0.56]	0.61 [0.61]					
External finish					Galvanized										
Dimen			mm			90 x 700		200 x 99	90 x 700	200 x 1,190 x 700					
H x W	x D		ln.		7-7/8 x 31-1	/8 x 27-9/16		7-7/8 x 39	7-7/8 x 46-7/8 x 27-9/16						
Net we	eight	*3	kg(lbs.)		19(42) [18(40)] 20(45) [19(42)] 24(53) [23(51)]										
Heat e	xchang	er			Cross fin (Aluminium fin and copper tube)										
	Туре х	Quantity				fan x 2			fan x 3	Sirocco fan x 4					
	Airflov	, rate	m³/min	5-6-7	5.5-6.5-8	5.5-7-9	6-8-10	8-9.5-11	9.5-11-13	12-14-16.5					
Fan	(Lo-M		L/s	83-100-117	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275					
	(LO-IVI	iu-i ii)	cfm	176-212-247	194-229-282	194-247-317	212-282-353	282-335-388	335-388-459	424-494-583					
	Externa	static press	Pa				5-15-35-50								
Motor	type						DC motor								
	outpu		kW				0.096								
Air filter						PP Ho	neycomb fabric (was	shable)							
Refrigerant	Gas		mm(in.)				12.7 (ø1/2) Braze	-		ø15.88 (ø5/8) Brazed					
pipe diameter	Liquid		mm(in.)			Q	6.35 (ø1/4) Braze	d		ø9.52 (ø3/8) Brazed					
	<u> </u>	diameter	mm(in.)				O.D. 32 (1-1/4)								
Sound p		e level													
(Lo-Mid	,		dB <a></a>	22-24-28	23-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36					
(mesured	in anec	hoic room)													

- \*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.
- \*3 [ ] is in case of PEFY-P15-63VMS1L-E
- $^{\star}4~Reference~data~under~condition~of~Indoor~27^{\circ}C(81^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB$

# INDOOR UNIT Ceiling Concealed Type

# PEFY-P VMA(L)-E PEFY-P VMA3-E



Middle Static Pressure 35~150Pa

Slim Body Height 250mm

With precise control of indoor temperature while operating with optimum energy usage, it offers a high-energy saving efficiency.



# **Compact Indoor Units**

For all models, unit height are unified to 250mm. Compared to the previous model, the height size is reduced, allowing installation in tight spaces, such as ceiling cavities or drop-ceilings.





PEFY-P VMA(L)		20	25	32	40	50	63	71	80	100	125	140
Height	mm						250					
Width	mm		700		90	0	1	1,100		1,4	100	1,600
Denth						732						

#### **External static pressure**

Five-stage external static pressure settings provide flexibility for duct extension, branching and air outlet configuration and are adjustable to meet different application conditions.

Setting ranges to a maximum of 150Pa.

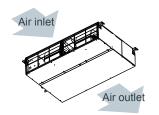
# External static pressure setting

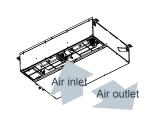
Series	20	25	32	40	50	63	71	80	100	125	140
PEFY-P VMA(L)				35	/50/7	0/100	)/150	Pa			

#### Air Inlet

(1) Rear inlet

(2) Bottom inlet





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

# **Drain Pump Option**

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



PEFY-P VMA-E Drain pump built-in



PEFY-P VMAL-E No Drain pump

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

#### **Analogue input**

Analogue input allows unit to control the fan speed setting in conjunction with damper condition.

# IT terminal

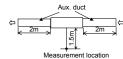
IT terminal is available. For details, contact your local distributor.

				PEFY-P20VMA(L)-E	PEFY-P25VMA(L)-E	PEFY-P32VMA(L)-E	PEFY-P40VMA(L)-E	PEFY-P50VMA(L)-E	PEFY-P63VMA(L)-E
Powers	source	*1		. ,			0-240V 50 / 60Hz	, ,	,
Cooling	capacity	y *1	kW	2.2	2.8	3.6	4.5	5.6	7.1
(Nomin	ial)	*2	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Cooling	capacity	y *7	kW	2.2	2.8	3.7	4.6	5.7	7.2
Heating	capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
(Nomin	ial)	*3	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power		oling *3	kW	0.06 [0.04]	0.06 [0.04]	0.07 [0.05]	0.09 [0.07]	0.11 [0.09]	0.12 [0.10]
	ption Hea	-	kW	0.04	0.04	0.05	0.07	0.09	0.10
	Con	oling *3	Α	0.53 [0.42]	0.53 [0.42]	0.55 [0.44]	0.64 [0.53]	0.74 [0.63]	1.01 [0.90]
Current	t —	ating	A	0.42	0.42	0.44	0.53	0.63	0.90
Externa		20119		0.12	0.12	Galvanized		0.00	
			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
Dimens	sion H x	WxD				9-7/8 x 27-9/16 x 28-7/8			9-7/8 x 43-5/16 x 28-7/8
Net wei	iaht		kg(lbs)	23 (51) [22 (49)]	23 (51) [22 (49)]	23 (51) [22 (49)]	26 (58) [25 (56)]	26 (58) [25 (56)]	32 (71) [31(69)]
	xchanger		119(150)	20 (01) [22 (40)]	20 (01) [22 (40)]		fin and copper tube)	20 (00) [20 (00)]	02 () [0 .(00)]
Tical cr	Type x (					Sirocco fan x 1	iii ana copper tabe)		Sirocco fan x 2
	Type x t	Quartity	m³/min	6.0 - 7.5 - 8.5	6.0 - 7.5 - 8.5	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0	12.0 - 14.5 - 17.0	13.5 - 16.0 - 19.0
	Airflow r	rate	L/s	100 - 125 - 142	100 - 125 - 142	125 - 150 - 175	167 - 200 - 233	200 - 242 - 283	225 - 267 - 317
Fan	(Low-Mi	id-High)	cfm	212 - 265 - 300	212 - 265 - 300	265 - 318 - 371	353 - 424 - 494	424 - 512 - 600	477 - 565 - 671
	Externa	l etatio	Ciffi	212 - 200 - 300	212 - 200 - 300	200 - 310 - 3/1	333 - 424 - 494	424 - 312 - 600	411 - 300 - 011
	pressure		Ра	<20> - <35> - 50 - <70> - <100> - <150>	<20> - <35> - 50 - <70> - <100> - <150>	<20> - <35> - 50 - <70> - <100> - <150>	<20> - <35> - 50 - <70> - <100> - <150>	<20> - <35> - 50 - <70> - <100> - <150>	<20> - <35> - 50 - <70> - <100> - <150>
Motor	Туре						notor	1	
	Output		kW	0.085	0.085	0.085	0.085	0.085	0.121
Air filter	r					PP honeyo	omb fabric.		
Refrigera	ant Liqu	uid (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
pipe diar	meter 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 dra	ain pipe d	diameter	mm(in.)	O.D.32 (1-1/4)	O.D.32(1-1/4)	O.D.32(1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Sound	pressure	level (m	easured in	anechoic room)					
(Low-M	lid-High)	*3 *5	dB(A)	26-28-29	26-28-29	28-30-34	28-30-34	28-32-35	29-32-36
		*3 *6	dB(A)	23-25-26	23-25-26	23-26-29	23-27-30	25-29-32	25-29-33
				PEFT-P/TVIMA(L)-E	PEFT-POUVIVIA(L)-E			PEFY-P140VMA(L)-E	PEFY-P20VMA3-E
Power		*1				1-phase 220-230	-240V 50 / 60Hz	, ,	
Cooling	capacity	y *1	kW	8.0	9.0	1-phase 220-230 11.2	0-240V 50 / 60Hz 14.0	16.0	2.2
Cooling (Nomin	g capacity al)	y *1 *2	BTU/h		9.0 30,700	1-phase 220-230 11.2 38,200	0-240V 50 / 60Hz 14.0 47,800	16.0 54,600	2.2 7,500
Cooling (Nomin Cooling	g capacity al) g capacity	y *1 *2 y *7	BTU/h kW	8.0 27,300 8.1	9.0	1-phase 220-230 11.2 38,200 11.4	14.0 47,800 14.2	16.0 54,600 16.3	2.2
Cooling (Nomin Cooling	g capacity al)	y *1 *2 y *7	BTU/h kW kW	8.0 27,300	9.0 30,700	1-phase 220-230 11.2 38,200	0-240V 50 / 60Hz 14.0 47,800	16.0 54,600	2.2 7,500
Cooling (Nomin Cooling	g capacity al) g capacity g capacity	y *1 *2 y *7	BTU/h kW	8.0 27,300 8.1	9.0 30,700 9.2	1-phase 220-230 11.2 38,200 11.4	14.0 47,800 14.2	16.0 54,600 16.3	2.2 7,500
Cooling (Nomin Cooling Heating	g capacity (al) g capacity g capacity (al)	y *1 *2 y *7 y *2	BTU/h kW kW	8.0 27,300 8.1 9.0	9.0 30,700 9.2 10.0	1-phase 220-230 11.2 38,200 11.4 12.5	14.0 47,800 14.2 16.0	16.0 54,600 16.3 18.0	2.2 7,500 — 2.5
Cooling (Nomin Cooling Heating (Nomin Power	g capacity (al) g capacity g capacity (al)	y *1	BTU/h kW kW BTU/h	8.0 27,300 8.1 9.0 30,700	9.0 30,700 9.2 10.0 34,100	1-phase 220-230 11.2 38,200 11.4 12.5 42,700	14.0 47,800 14.2 16.0 54,600	16.0 54,600 16.3 18.0 61,400	2.2 7,500 — 2.5 8,500
Cooling (Nomin Cooling Heating (Nomin Power consum	g capacity g capacity g capacity g capacity all)  Coc ption Hea	y *1	BTU/h kW kW BTU/h kW	8.0 27,300 8.1 9.0 30,700 0.14 [0.12]	9.0 30,700 9.2 10.0 34,100 0.14 [0.12]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22]	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32]	16.0 54,600 16.3 18.0 61,400 0.36 [0.34]	2.2 7,500 — 2.5 8,500 0.110
Cooling (Nomin Cooling Heating (Nomin Power	g capacity g capacity g capacity g capacity al)  Coc ption Hea	y *1 *2 y *7 y *2 *3 poling *3 ating *3	BTU/h kW kW BTU/h kW kW	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34	2.2 7,500 — 2.5 8,500 0.110 0.090
Cooling (Nomin Cooling Heating (Nomin Power consum	g capacity g capacity g capacity g capacity al)  Coc ption Hea t	y *1 *2 y *7 y *2 *3 bling *3 ating *3 bling *3	BTU/h kW kW BTU/h kW kW A	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04]	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36]	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94]	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10]	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90
Cooling (Nomin Cooling Heating (Nomin Power consum Current	g capacity all) g capacity g capacity g capacity g capacity all)  Coc Hea al finish	y *1 *2 y *7 y *2 *3 soling *3 ating *3 ating *3	BTU/h kW kW BTU/h kW kW A	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04]	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79
Cooling (Nomin Cooling Heating (Nomin Power consum Current	g capacity g capacity g capacity g capacity al)  Coc ption Hea t	y *1 *2 y *7 y *2 *3 soling *3 ating *3 ating *3	BTU/h kW kW BTU/h kW kW A	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10]	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79 250 x 900 x 732
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa	g capacity (a) (b) (c) (c) (c) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	y *1 *2 y *7 y *2 *3 soling *3 ating *3 ating *3	BTU/h kW kW BTU/h kW kW A A mm in.	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 × 1,100 × 732 9-7/8 × 43-5/16 × 28-7/8	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79 250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens	g capacity g capacity g capacity g capacity g capacity al)  Coo Hea al finish sion H x	y *1	BTU/h kW kW BTU/h kW kW A A	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)]	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)]	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79 250 x 900 x 732
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens	g capacity g capacity g capacity g capacity g capacity g capacity tal)  Coc Hea al finish sion H x ight exchanger	y *1 *2 y *7 y *2 *3 obling *3 obling *3 obling *3 obling *3 obling *4 obling *5 obling *5 obling *5 obling *6 obling *6 obline *6 oblin	BTU/h kW kW BTU/h kW kW A A mm in.	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 × 1,100 × 732 9-7/8 × 43-5/16 × 28-7/8	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)]	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79 250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens	g capacity al) g capacity g capacity g capacity al)  Coc Hea al finish sion H x ight rxchanger Type x 0	y *1 *2 y *7 y *2 *3 oling *4	BTU/h kW kW BTU/h kW kW A A mm in. kg(lbs)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] fin and copper tube)	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)]	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens	g capacity all) g capacity g capacity g capacity all) g capacity g capacity all)  Coc Hea al finish sion H x ight xchanger Type x 0 Airflow I	y *1 *2 y *7 y *2 *3 soling *3 ating *3 www.publing *3 ating was a	BTU/h kW kW BTU/h kW kW A A mm in. kg(lbs)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] fin and copper tube)	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)]	2.2 7,500 2.5 8,500 0.110 0.090 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens	g capacity all) g capacity g capacity g capacity all) g capacity g capacity all)  Coc Hea al finish sion H x ight xchanger Type x 0 Airflow I	y *1 *2 y *7 y *2 *3 oling *4	BTU/h kW kW BTU/h kW kW A A A mm in. kg(lbs)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550	-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)]	2.2 7,500 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei	g capacity al) g capacity g capacity g capacity g capacity t Coc Hea al finish sion H x ight xxchanger Type x 0 Airflow r (Low-Mi	y *1 *2 y *7 y *2 *3 obling *4 obling *5 oblin	BTU/h kW kW BTU/h kW kW A A mm in. kg(lbs)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0	-240V 50 / 60Hz 14.0 47,800 14.2 16.0 54,600 0.34 [0.32] 0.32 2.05 [1.94] 1.94 steel plate 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] fin and copper tube)	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)]	2.2 7,500 2.5 8,500 0.110 0.090 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei	g capacity g capacity g capacity g capacity g capacity g capacity al)  Coo Hea al finish sion H x changer Type x ( Airflow r (Low-Mi Externa pressure	y *1     *2 y *7 y *2     *3 oling *3 oling *3 ating *3 ating *3 Ating *3 Oling *3 Ating *3 A	BTU/h kW kW BTU/h kW kW A A A mm in. kg(lbs)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165	-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  < <a href="https://doi.org/10.400/c/sp-400-467-567-467">https://doi.org/10.400/c/sp-400-467-567-667</a>	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)] 29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei	g capacity the	y *1     *2 y *7 y *2     *3 oling *3 oling *3 ating *3 ating *3 Ating *3 Oling *3 Ating *3 A	BTU/h kW kW BTU/h kW A A  mm in. kg(lbs)  m³/min L/s cfm	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742 ◆ - ◆◆ - 50 - ₹7▷ - ★0▷ - ₹5▷	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  <▷ - ▷ ◆ ▷ - ▷ → ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165 < <a 10.449"="" doi.org="" href="https://doi.org/10.100/clip-clip-chi/s-fig-fat-fat-fat-fat-fat-fat-fat-fat-fat-fat&lt;/td&gt;&lt;td&gt;-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  &lt;&lt;/td&gt;   &lt;/td&gt;&lt;td&gt;16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10  250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483&lt;/td&gt;&lt;td&gt;2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600  &lt;\$5&gt;-50 &lt; 70&gt; &lt; 100&gt; &lt; 125&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex&lt;/td&gt;&lt;td&gt;g capacity g capacity g capacity g capacity g capacity g capacity g capacity Hea t Coo Hea al finish sion H x ight xchanger Type x C Airflow r (Low-Mi Externa pressure Type Output&lt;/td&gt;&lt;td&gt;y *1     *2 y *7 y *2     *3 oling *3 oling *3 ating *3 ating *3 Ating *3 Oling *3 Ating *3 A&lt;/td&gt;&lt;td&gt;BTU/h kW kW BTU/h kW kW A A  mm in. kg(lbs)  m³/min L/s cfm&lt;/td&gt;&lt;td&gt;8.0&lt;br&gt;27,300&lt;br&gt;8.1&lt;br&gt;9.0&lt;br&gt;30,700&lt;br&gt;0.14 [0.12]&lt;br&gt;0.12&lt;br&gt;1.15 [1.04]&lt;br&gt;1.04&lt;br&gt;250 x 1,100 x 732&lt;br&gt;9-7/8 x 43-5/16 x 28-7/8&lt;br&gt;32 (71) [31 (69)]&lt;br&gt;14.5 - 18.0 - 21.0&lt;br&gt;242 - 300 - 350&lt;br&gt;512 - 636 - 742&lt;/td&gt;&lt;td&gt;9.0&lt;br&gt;30,700&lt;br&gt;9.2&lt;br&gt;10.0&lt;br&gt;34,100&lt;br&gt;0.14 [0.12]&lt;br&gt;0.12&lt;br&gt;1.15 [1.04]&lt;br&gt;1.04&lt;br&gt;250 x 1,100 x 732&lt;br&gt;9-7/8 x 43-5/16 x 28-7/8&lt;br&gt;32 (71) [31 (69)]&lt;br&gt;14.5 - 18.0 - 21.0&lt;br&gt;242 - 300 - 350&lt;br&gt;512 - 636 - 742&lt;/td&gt;&lt;td&gt;1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165  40 - 4\$&gt;-\$0-4\$&gt;-\$0-4\$\$&gt;-\$0-4\$\$&gt; DC n&lt;/td&gt;&lt;td&gt;-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  &lt;&lt;a href=" https:=""></a>	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)] 29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600	
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex	g capacity g capacity g capacity g capacity al)  Coo Hea I Coo Hea I Finish Coo Hea I Goo I Ha	y *1 *2 y *7 y *2 *3 oling *3 oling *3 oling *3 ating *3 Oling *3 Oling *3 oling to the control of the control	BTU/h kW kW BTU/h kW kW A A A  mm in. kg(lbs)  m³/min L/s cfm Pa	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  <	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  \$\infty\$ \times \infty\$ \t	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165 <	-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  < <a href="https://doi.org/10.4180">https://doi.org/10.4180</a> cotor  0.244  omb fabric.	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)] 29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483 <□ - 4\$5 - 50 - 4\$0 -	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600  <\$5> \cdot 0.085
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex Fan Motor Air filter Refrigera	g capacity g capacity g capacity g capacity g capacity g capacity all)  Coo Hea al finish sion H x ight x changer Type x ( Airflow r (Low-Mi Externa pressure Type Output r ant Liqu	y *1 *2 y *7 y *2 *3 oling *3 oling *3 oling *3 oling *3 oling *3 oling *1	BTU/h kW kW BTU/h kW A A A mm in. kg(lbs)  m³/min L/s cfm Pa kW mm(in.)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 × 1,100 × 732 9-7/8 × 43-5/16 × 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742 ◆ - ◆ - ◆ - ◆ - ◆ - ◆ - ◆ - ◆ - ◆ - ◆ -	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165  <	-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  <	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10  250 × 1,600 × 732 9-7/8 × 63 × 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483  <□ - <□ - <□ - <□ - <□ - <□ - <□ - <□	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600  <35>-50 - <70> - <100> - <125>  0.085  6.35 (1/4)Flare
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex Fan Motor Air filter Refrigera	g capacity lead of the capacity text	y *1	BTU/h kW kW BTU/h kW A A A  mm in. kg(lbs)  m³/min L/s cfm Pa  kW  mm(in.) mm(in.)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165	14.0   14.0   47,800   14.2   16.0   54,600   0.34 [0.32]   0.32   2.05 [1.94]   1.94   steel plate   250 x 1,400 x 732   9-7/8 x 55-1/8 x 28-7/8   42 (93) [41 (91)]   fin and copper tube)   28.0 - 34.0 - 40.0   467 - 567 - 667   989 - 1,201 - 1,412   <	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10  250 × 1,600 × 732 9-7/8 × 63 × 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483  <	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600 <35>-50 - <70>-<100>-<125> 0.085  6.35 (1/4)Flare 12.7 (1/2)Flare
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex Fan Motor Air filter Refrigera pipe diar Field dra	g capacity Hea t Coc Hea al finish sion H x ' ight schanger Type x 0 Airflow r (Low-Mi Externa pressura Type Output r r ant Liqu meter Gas an pipe c	y *1 *2 y *7 y *2 *3 oling *3 oling *3 oling *3 ating *3 oling *3 oling *3 oling *3 oling *4	BTU/h kW kW BTU/h kW A A A  mm in. kg(lbs)  m³/min L/s cfm Pa  kW  mm(in.) mm(in.)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  \$\infty\$ - \$\left\sigma\$ - \$\le	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165  <	-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  <	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10  250 × 1,600 × 732 9-7/8 × 63 × 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483  <□ - <□ - <□ - <□ - <□ - <□ - <□ - <□	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600  <35>-50 - <70> - <100> - <125>  0.085  6.35 (1/4)Flare
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex Fan Motor Air filter Refrigera pipe diar Field dra	g capacity Hea t Coc Hea al finish sion H x ' ight schanger Type x 0 Airflow r (Low-Mi Externa pressura Type Output r r ant Liqu meter Gas an pipe c	y *1 *2 y *7 y *2 *3 oling *3 oling *3 oling *3 ating *3 oling *3 oling *3 oling *3 oling *4	BTU/h kW kW BTU/h kW A A A  mm in. kg(lbs)  m³/min L/s cfm Pa  kW  mm(in.) mm(in.)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165	14.0   14.0   47,800   14.2   16.0   54,600   0.34 [0.32]   0.32   2.05 [1.94]   1.94   steel plate   250 x 1,400 x 732   9-7/8 x 55-1/8 x 28-7/8   42 (93) [41 (91)]   fin and copper tube)   28.0 - 34.0 - 40.0   467 - 567 - 667   989 - 1,201 - 1,412   <	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10  250 × 1,600 × 732 9-7/8 × 63 × 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483  <	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600 <35>-50 - <70>-<100>-<125> 0.085  6.35 (1/4)Flare 12.7 (1/2)Flare
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex Fan Motor Air filter Refrigera pipe diar Field dr Sound	g capacity Hea t Coc Hea al finish sion H x ' ight schanger Type x 0 Airflow r (Low-Mi Externa pressura Type Output r r ant Liqu meter Gas an pipe c	y *1 *2 y *7 y *2 *3 soling *3 ating *3	BTU/h kW kW BTU/h kW A A A  mm in. kg(lbs)  m³/min L/s cfm Pa  kW  mm(in.) mm(in.)	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  \$\infty\$ - \$\left\sigma\$ - \$\le	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165	14.0   14.0   47,800   14.2   16.0   54,600   0.34 [0.32]   0.32   2.05 [1.94]   1.94   steel plate   250 x 1,400 x 732   9-7/8 x 55-1/8 x 28-7/8   42 (93) [41 (91)]   fin and copper tube)   28.0 - 34.0 - 40.0   467 - 567 - 667   989 - 1,201 - 1,412   <	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10  250 × 1,600 × 732 9-7/8 × 63 × 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483  <	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600 <35>-50 - <70> - <100> - <125>  0.085  6.35 (1/4)Flare 12.7 (1/2)Flare
Cooling (Nomin Cooling Heating (Nomin Power consum Current Externa Dimens Net wei Heat ex Fan Motor Air filter Refrigera pipe diar Field dr Sound	g capacity Hea t Coc Hea al finish sion H x ight xchanger Type x ( Airflow r (Low-Mi Externa pressure Output r ant Liqu meter Gas ain pipe c pressure	y *1 *2 y *7 y *2 *3 soling *3 ating *3	BTU/h kW kW BTU/h kW A A  mm in. kg(lbs)  m³/min L/s cfm Pa  kW  mm(in.) mm(in.) mm(in.) easured in.	8.0 27,300 8.1 9.0 30,700 0.14 [0.12] 0.12 1.15 [1.04] 1.04 250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)] 14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  <  □ 0.121 9.52 (3/8) Brazed 15.88 (5/8) Brazed O.D.32 (1-1/4) anechoic room)	9.0 30,700 9.2 10.0 34,100 0.14 [0.12] 0.12 1.15 [1.04] 1.04  250 x 1,100 x 732 9-7/8 x 43-5/16 x 28-7/8 32 (71) [31 (69)]  14.5 - 18.0 - 21.0 242 - 300 - 350 512 - 636 - 742  <  □ - 35 - 50 - √0 - √10 - √100 - √150 0.121  9.52 (3/8) Brazed 0.D.32 (1-1/4)	1-phase 220-230 11.2 38,200 11.4 12.5 42,700 0.24 [0.22] 0.22 1.47 [1.36] 1.36 Galvanized 250 x 1,400 x 732 9-7/8 x 55-1/8 x 28-7/8 42 (93) [41 (91)] Cross fin (Aluminum Sirocco fan x 2 23.0 - 28.0 - 33.0 383 - 467 - 550 812 - 989 - 1,165  ②→ ③→ ⑤→ ○○→ ○○→ ○○ 0.244 PP honeyc 9.52 (3/8) Brazed 15.88 (5/8) Brazed 0.D.32 (1-1/4)	-240V 50 / 60Hz  14.0  47,800  14.2  16.0  54,600  0.34 [0.32]  0.32  2.05 [1.94]  1.94  steel plate  250 x 1,400 x 732  9-7/8 x 55-1/8 x 28-7/8  42 (93) [41 (91)]  fin and copper tube)  28.0 - 34.0 - 40.0  467 - 567 - 667  989 - 1,201 - 1,412  <	16.0 54,600 16.3 18.0 61,400 0.36 [0.34] 0.34 2.21 [2.10] 2.10 250 x 1,600 x 732 9-7/8 x 63 x 28-7/8 46 (102) [45 (100)]  29.5 - 35.5 - 42.0 492 - 592 - 700 1,042 - 1,254 - 1,483  ②③>-⑤-④>-⑥⑥ 0.244  9.52 (3/8) Brazed 15.88 (5/8) Brazed O.D.32 (1-1/4)	2.2 7,500 — 2.5 8,500 0.110 0.090 0.90 0.79  250 x 900 x 732 9-7/8 x 35-7/16 x 28-7/8 27(60)  Sirocco fan x 1 12.0 - 14.5 - 17.0 200 - 242 - 283 424 - 512 - 600 <35>-50 - 70> - <10> - <12> 0.085  6.35 (1/4)Flare 12.7 (1/2)Flare O.D.32 (1-1/4)

# Notes:

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

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.



- Reference data under condition of Indoor 27°C(81°F)DB/19.5°C(67°F)WB, Outdoor 35°C(95°F)DB
- [] is in case of PEFY-P VMAL-E
- When PEFY-P20VMA2-E is connected, the available range of outdoor temperature is between 10  $^{\circ}\text{C}$  and 49  $^{\circ}\text{C}$  .

Indoor Unit

# **INDOOR UNIT Ceiling concealed** type

# PEFY-P VMH(S)-E

High Static Pressure



Increased design flexibility from sufficient external static pressure allows authentic duct air- conditioning with an elegant interior layout.



#### High static pressure of 200 Pa or higher

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

PEFY-P	VMH-E	P40	P50	P63	P71	P80	P100	P125	P140	P200 P250	
	220V	50/100/200									_
External static	pressure 380V		100/150/200								_
pressure (Pa)			<u> </u>								220
(. 4)	400/415V									130/260	

PEFY-P VMHS-E	P200	P250
External static pressure (Pa)	<50> - <100> - 15	0 - <200> - <250>*

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

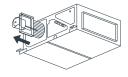
#### Reduced noise thanks to the use of newly designed centrifugal fan

Sound pressure level table (Standard static pressure 220V)

										UB(A)
Sound	Capacity		P40	P50	P63	P71	P80	P100	P125	P140
pressure	Fan	High	34	34	38	39	41	42	42	42
Level	Speed	Low	27	27	32	32	35	34	34	34

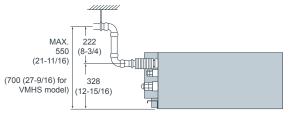
#### One-side maintenance

All maintenance to the unit, including fan inspection and fan motor removal, can be conducted from the inspection opening on one side. (VMH model only)



#### Drain pump (option) ensures up to 550mm (21-11/16in.) for VMH model / 700mm (27-9/16in.) for VMHS model of lift

The introduction of an upper drain pump allows the drain connection to be raised as high as 550mm(21-11/16in.) for VMH model/700mm (27-9/16in.) for VMHS model, allowing more freedom in piping layout design and reducing horizontal piping requirements.



mm (in.)

The factory setting is the rated value

				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 220-240	0V 60Hz			
Caalin		*1	kW	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0	
Cooling	g capacity	<sup>y</sup> *1	BTU/h	15,400	19,100	24,200	27,300	30,700	38,200	47,800	54,600	
Cooling	capacity		kW	4.6	5.7	7.2	8.1	9.2	11.4	14.2	16.3	
Hooting	g capacit	*1	kW	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0	
пеаші	y capacit	<sup>y</sup> *1	BTU/h	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400	
Power	rer 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			
consur	amption reduing Size of the size of t					0.32 / 0.40	0.48	/ 0.58	0.48 / 0.59			
Curren	Cooling A 0.88 / 1.0				/ 1.06	1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34	/ 2.66	2.35 / 2.70	
Curren	Heating   A		Α	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 Galva					alvanized							
Dimension H x W x D			mm		380 x 750 x 900		380 x 1,0	000 x 900		380 x 1,200 x 900		
in.			in.	15	x 29-9/16 x 35-7	/16	15 x 39-3/8	3 x 35-7/16		5 x 47-1/4 x 35-7/	16	
Net we	ight		kg(lbs.)		41 (91)		50 (	111)	144)	67 (148)		
Heat e	xchanger					Cross	fin (Aluminum pla	ate fin and coppe	r tube)	Sirocco fan x 2		
	Type x	Quantity				Sirocco fan x 1						
	Airflow	rate	m³/min		-14.0	13.5-19.0	15.5-22.0	18.0-25.0		-38.0	28.0-40.0	
Fan	(Lo-Hi)		L/s		-233	225-317	258-367	300-417	442-633		467-667	
1 011	<u> </u>		cfm	353	-494	477-671	547-777	636-883	936-	1342	989-1413	
	External static		Pa					0 · 200				
	F	230,240V	Pa				100 · 1	50 · 200				
Motor	Туре							uction motor		0.26		
	Output	*3	kW	0.	08	0.12	0.14	0.18				
Air filte	r (option)					Synth	ethic fiber unwov	en cloth filter (lon	ig life)			
Refrige	Gas   mm(in.)   Ø12.7 (Ø1/2)   Ø15.					ø15.88	3 (ø5/8)					
pipe di	ameter	Liquid (Flare)	mm(in.)	ø6.35	(ø1/4)			ø9.52	(ø3/8)			
Field di	ain pipe o	diameter	mm(in.)				O.D. 32	? (1-1/4)		34-42		
Sound	pressure	220V	dB(A)	27-	-34	32-38	32-39	35-41		38-44		
level (Lo-Hi) *6 230,240V dB(A) 31-37			-37	36-41	35-41	38-43						

				PEFY-P200VMH-E	PEFY-P250VMH-E	PEFY-P200VMHS-E	PEFY-P250VMHS-E	
Power	source			3-phase 380-415V 50H:	z / 3N ~ 380-415V 60Hz	1-phase 220-240V 50Hz	/ 1-phase 220-240V 60Hz	
Caslina		*1	kW	22.4	28.0	22.4	28.0	
Cooling	g capacit	<sup>y</sup> *1	BTU/h	76,400	95,500	76,400	95,500	
Cooling	g capacit	y *10	kW	22.8	28.5	22.8	28.5	
114:		*1	kW	25.0	31.5	25.0	31.5	
Heating	g capacit	y *1	BTU/h	85,300	107,500	85,300	107,500	
Power		Cooling	kW	0.99 / 1.14	1.23 / 1.41	0.63 *7	0.82 *7	
consun	nption	Heating	kW	0.99 / 1.14	1.23 / 1.41	0.63 *7	0.82 *7	
	Cooling	380-415V	Α	1.62 / 1.86	2.00 / 2.30	-	_	
Current	Cooling	220-230-240V	Α	_	_	3.47-3.32-3.18 *7	4.72-4.43-4.14 *7	
Current	Heating	380-415V	Α	1.62 / 1.86	2.00 / 2.30	_	_	
	ricating	220-230-240V	Α	_	1	3.47-3.32-3.18 *7	4.72-4.43-4.14 *7	
Externa	al finish			Galva	inized	Galvanized	steel plate	
Dimon	imension H x W x D		mm	470 x 1,25		470 x 1,29	50 x 1,120	
Dimens	SIOII II X	WXD	in.	18-9/16 x 49	-1/4 x 44-1/8	18-9/16 x 49-1/4 x 44-1/8		
Net we	ight		kg(lbs.)	100 (	,	97 (214)	100 (221)	
Heat ex	xchanger	•		Cross fin (Aluminum pla	ate fin and copper tube)	Cross fin (Aluminum pla	ate fin and copper tube)	
	Type x	Quantity		Sirocco	fan x 2	Sirocco	fan x 2	
			m³/min	58.0	72.0	_	_	
	Airflow	rate	L/s	967	1200	_	_	
			cfm	2048	2543	_	_	
			m³/min	_	1	50.0-61.0-72.0	58.0-71.0-84.0	
Fan		Lo-Mid-Hi	L/s	_	-	833-1017-1200	967-1183-1400	
			cfm	_	-	1766-2154-2542	2048-2507-2966	
		380V	Pa	110	220 *4	-	-	
	External static	400,415V	Pa	130	260 *4	-	-	
	pressure		Pa	-	-	<50>-<100>-15	60-<200>-<250> *8	
			mmH <sub>2</sub> O	-	-	<5.1>-<10.2>-15	.3-<20.4>-<25.5> *8	
Motor	Туре			3-phase ind	uction motor	DC r	motor	
MOIOI	Output		kW	0.76 *5	1.08 *5	0.87	0.87	
Air filte	r(option)			Synthethic fiber unwov	en cloth filter (long life)	Synthethic fiber unwoven cloth filter (long	life filter) and filter box are recommended	
Refrige	erant	Gas (Brazing)	mm(in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)	ø19.05 (ø3/4)	ø22.2 (ø7/8)	
pipe dia	ameter	Liquid (Brazing)	mm(in.)	ø9.52	(ø3/8)	ø9.52	(ø3/8)	
Field dr	ain pipe	diameter	mm(in.)	O.D. 32	! (1-1/4)	O.D. 32	2 (1-1/4)	
0		380V	dB(A)	42 (110Pa) / 45 (220Pa) *6	50 (110Pa) / 52 (220Pa) *6	_	_	
	pressure	400,415V	dB(A)	44 (130Pa) / 47 (260Pa) *6	52 (130Pa) / 54 (260Pa) *6	_	_	
level		Lo-Mid-Hi	dB(A)	_	_	36-39-43 *9	39-42-46 *9	

- \*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 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.

  \*7 The values are measured at the rated external static pressure.

  \*8 The rated external static pressure is shown without < >.

  The factory setting is the rated value.

  \*9 It is measured at the rated external static pressure in anechoic room.

  \*10 Reference data under condition of Indoor 27°C(81°F)DB/19.5°C(67°F)WB, Outdoor 35°C(95°F)DB

# INDOOR UNIT Fresh Air Intake Type

# PEFY-P VMH-E-F

Fresh Air Intake

Fresh Air can be taken in with temperature control. Ideal for Offices, Stores and Restaurants.



# The Fresh Air intake indoor unit can be installed in any place.

Fresh Air can be taken in with temperature control.

Outside air will be cooled down or heated up to supply it to the room, and this reduces the air conditioning load in a room. High-capacity humidifier will keep room air moist and comfortable during heating.

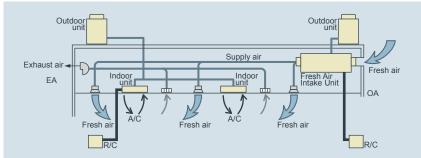
\*Supply air temperature control cannot be used.

Office, Lobby, Workshop, Restroom, Nursing home, Smoking corner, Kitchen in restaurant

#### \* Limits of capacity connectable to outdoor unit

 $Max.\ 110\%\ of\ outdoor\ unit\ capacity,\ excepting\ heating\ at\ outdoor\ temperature\ of\ less\ than\ -5^{\circ}C(23^{\circ}F)\ (100\%).$ 

## Example



#### < Note>

Fan remains in operation during Thermo-OFF. Using this model with other type of indoor unit is recommended to prevent cold draft which is caused due to intaken fresh air.

				PEFY-P80VMH-E-F	PEFY-P140VMH-E-F
Power	source			1-phase 220-240V 50Hz /	
Cooling	g capacit	*1 V *4	kW	9.0	16.0
	5 1	· 1	BTU/h	30,700	54,600
Heatin	g capacit	*1 ty *1	kW	8.5 29,000	15.1
			BTU/h kW	0.16 / 0.21	51,500 0.29 / 0.33
Power		Cooling	kW	0.16 / 0.21	0.29 / 0.33
Consu	mption	Heating Cooling	A	0.67 / 0.91	1.24 / 1.48
Curren	ıt	Heating	A	0.67 / 0.91	1.24 / 1.48
Extern	al finish	ricating		Galva	
Dimen				380 x 1000 x 900	380 x 1200 x 900
HxW			mm(in.)	(15 x 39-3/8 x 35-7/16)	(15 x 47-1/4 x 35-7/16)
Net we			kg(lbs.)	50 (111)	67 (148)
Heat e	xchange	r	, ,	Cross fin (Aluminum pla	ate fin and copper tube)
	Type x	Quantity		Sirocco fan x 1	Sirocco fan x 2
			m³/min	9.0	18.0
	Airflow	rate	L/s	150	300
Fan			cfm	318	636
	External		Pa	35 - 85 - 170	35 - 85 - 170
	static	220V	Pa	40 - 115 - 190	50 - 115 - 190
	pressure		Pa	50 - 130 - 210	60 - 130 - 220
<u> </u>	(Lo-Mid-Hi)	24UV	Pa	80 - 170 - 220	100 - 170 - 240
Motor	Type Output		kW	1-phase indu 0.09 (at 220V)	oction motor 0.14 (at 220V)
Air filto	r (option)		KVV	Synthetic fiber unwove	
All lille	i (option)	Gas			, ,
Refrige	erant	(Flare)	mm(in.)	ø15.88	(ø5/8)
	ameter	Liquid	<i>a</i> ,		
p.p		(Flare)	mm(in.)	ø9.52	(ø3/8)
Field d	rain pipe	diameter	mm(in.)	O.D.32	(1-1/4)
	essure level		dB(A)	27 - 38 - 43	28 - 38 - 43
(Lo-Mid-H	li) *2	230, 240V	dB(A)	33 - 43 - 45	34 - 43 - 45
				PEFY-P200VMH-E-F	DEEA DOEO AWALLE E
Power	source				PEFY-P250 VMH-E-F
	source		kW	3-phase 380-415V 50Hz	
	source	ity	kW BTU/h	3-phase 380-415V 50Hz	z / 3N~ 380-415V 60Hz
Coolin	ig capac	-		3-phase 380-415V 50Hz 22.4	z / 3N~ 380-415V 60Hz 28.0
Coolin		-	BTU/h	3-phase 380-415V 50H: 22.4 76,400	2 / 3N~ 380-415V 60Hz 28.0 95,500 26.5 90,400
Coolin	ig capac	-	BTU/h kW BTU/h kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42	28.0 95,500 26.5 90,400 0.39 / 0.50
Coolin Heatin	ig capac	Cooling Heating	BTU/h kW BTU/h kW kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42	28.0 95,500 26.5 90,400 0.39 / 0.50 0.39 / 0.50
Coolin Heatir Power	ng capac ng capac r umption	Cooling Heating Cooling	BTU/h kW BTU/h kW kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74	28.0 95,500 26.5 90,400 0.39 / 0.50 0.68 / 0.86
Coolin Heatir Power consu	ng capac ng capac r umption nt	Cooling Heating Cooling Heating	BTU/h kW BTU/h kW kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86
Coolin Heatir Power consu Currer Extern	ng capac ng capac r umption nt	Cooling Heating Cooling Heating	BTU/h kW BTU/h kW kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva	28.0 95,500 26.5 90,400 0.39 / 0.50 0.68 / 0.86 nized
Coolin Heatir Power consu Currer Extern Dimer	ng capace ng capace rumption nt nal finish	Cooling Heating Cooling Heating	BTU/h kW BTU/h kW kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125	28.0 95,500 26.5 90,400 0.39 / 0.50 0.39 / 0.50 0.68 / 0.86 0.68 / 0.86
Coolin Heatir Power consu Currer Exterr Dimer H x W	ng capace rumption nt nal finish nsion x D	Cooling Heating Cooling Heating	BTU/h kW BTU/h kW kW A A mm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-	28.0 95,500 26.5 90,400 0.39 / 0.50 0.39 / 0.50 0.68 / 0.86 0.68 / 0.86 nized 0 x 1120 1/4 x 44-1/8)
Coolin  Heatir  Power consu  Currer  Exterr  Dimer H x W  Net we	ng capace ng capace rumption nt nal finish nsion x D eight	Cooling Heating Cooling Heating	BTU/h kW BTU/h kW kW A	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-100)	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)
Coolin  Heatir  Power consu  Currer  Exterr  Dimer H x W  Net we	ng capac ng capac numption nt nal finish nsion x D eight exchange	Cooling Heating Cooling Heating Heating	BTU/h kW BTU/h kW kW A A Mmm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49- 100) Cross fin (Aluminum pla	2/ 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120 11/4 x 44-1/8) 221) tet fin and copper tube)
Coolin  Heatir  Power consu  Currer  Exterr  Dimer H x W  Net we	ng capac ng capac numption nt nal finish nsion x D eight exchange	Cooling Heating Cooling Heating	BTU/h kW BTU/h kW kW A A kg(lbs.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-	28.0 95,500 26.5 90,400 0.39 / 0.50 0.39 / 0.50 0.68 / 0.86 0.68 / 0.86 nized 0 x 1120 1/4 x 44-1/8) 221) tet fin and copper tube) fan x 2
Coolin  Heatir  Power consu  Currer  Exterr  Dimer H x W  Net we	ng capace of cap	Cooling Heating Cooling Heating Heating Cooling Cooling Cooling Cooling	BTU/h kW BTU/h kW kW A A Mmm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 100 ( Cross fin (Aluminum pla Sirocco	28.0 95,500 26.5 90,400 0.39 / 0.50 0.39 / 0.50 0.68 / 0.86 0.68 / 0.86 nized 0 x 1120 1/4 x 44-1/8) 221) tet fin and copper tube) fan x 2
Coolin  Heatir  Power consu  Currer  Exterr  Dimer H x W  Net we	ng capac ng capac numption nt nal finish nsion x D eight exchange	Cooling Heating Cooling Heating Heating Cooling Cooling Cooling Cooling	BTU/h kW BTU/h kW kW A A kg(lbs.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-	28.0 95,500 26.5 90,400 0.39 / 0.50 0.39 / 0.50 0.68 / 0.86 0.68 / 0.86 nized 0 x 1120 1/4 x 44-1/8) 221) tet fin and copper tube) fan x 2
Coolin Heatir Power consu Currer Exterr Dimer H x W Net we Heat e	ng capace rumption interest in the second of	Cooling Heating Cooling Heating Heating Couling Heating	BTU/h kW BTU/h kW kW A A Mmm(in.) kg(lbs.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49 100 ( Cross fin (Aluminum pla Sirocco 28 467	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  11/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583
Coolin Heatir Power consu Currer Exterr Dimer H x W Net we Heat e	ng capace of cap	Cooling Heating Cooling Heating Heating Couling Heating	BTU/h kW BTU/h kW A A mm(in.) kg(lbs.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 1000 Cross fin (Aluminum pla Sirocco 28 467 989	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  0 x 1120  1/4 x 44-1/8)  221)  ste fin and copper tube) fan x 2  35  583  1236
Coolin Heatir Power consu Currer Exterr Dimer H x W Net we Heat e	ng capace and capace are selected as a capacity and a capacity are selected as a capacity as a capa	Cooling Heating Cooling Heating Heating  er Quantity rate  380V 400V	BTU/h kW BTU/h kW A A  mm(in.) kg(lbs.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49- 100 ( Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200	2/3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221) tete fin and copper tube) fan x 2  35  583  1236  110 / 190
Heatir Power consu Currer Extern Dimen H x W Net wo Heat c	ng capac g cap	Cooling Heating Cooling Heating Heating  er Quantity rate  380V 400V	BTU/h kW BTU/h kW BTU/h kW kW A A A  mmm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 100 ( Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200 150 / 210	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210
Power const. Currer Extern Dimer H x W Net we Heat e	ng capac rumption nt nal finish nsion x D eight exchange Type x Airflow External static pressure Type Output	Cooling Heating Cooling Heating Heating Heating Heating Prate 380V 400V 415V	BTU/h kW BTU/h kW BTU/h kW kW A A A  mmm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 100 ( Cross fin (Aluminum ple Sirocco 28 467 989 140 / 200 1550 / 210 160 / 220 3-phase indi	2/3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  uction motor
Power const. Currer Extern Dimer H x W Net we Heat e	g capace and capace are sumption on the sion of the second and the	Cooling Heating Cooling Heating Heating  er Quantity rate  380V 400V 415V	BTU/h kW BTU/h kW A A A mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa Pa	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-100) Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi	2/3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  11/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  uction motor
Coolin Heatir Power consu Currer Extern Dimer H x W Net we Heat c	ng capace rumption nt hal finish asion x D eight exchange Type x Airflow External static pressure Type Output er (option	Cooling Heating Cooling Heating Heating Processing Heating Processing Heating Processing	BTU/h kW BTU/h kW kW A A  mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 1000 Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi 0.20 Synthetic fiber unwoven	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  0.12ed  0 x 1120  114 x 44-1/8)  221)  Ite fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  Juction motor  0.23  Cloth filter (long life type)
Coolin Heatir Power consu Currer Exterr Dimer H x W Heat e Fan  Motor Air filte Refrig	g capac  g c	er Quantity  above the state of	BTU/h kW BTU/h kW A A A mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa Pa	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 100 ( Cross fin (Aluminum ple Sirocco 28 467 989 140 / 200 1550 / 210 160 / 220 3-phase indi	2/3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  uction motor
Coolin Heatir Power consu Currer Exterr Dimer H x W Heat e Fan  Motor Air filte Refrig	ng capace rumption nt hal finish asion x D eight exchange Type x Airflow External static pressure Type Output er (option	Cooling Heating Cooling Heating Heating Heating Heating Frate Salv 400V 415V Gas (Flare) Liquid	BTU/h kW BTU/h kW kW A A  mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa kW	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49) 100 ( Cross fin (Aluminum ple Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi 0.20 Synthetic fiber unwoven of	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube) fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  Jettion motor  0.23  cloth filter (long life type)
Coolin Heatir Power const. Currer Extern Dimer H x W Net we Heat e	ng capac rumption nt nal finish nsion x D eight exchange Type x Airflow External static pressure Type Output er (option	Cooling Heating Cooling Heating Cooling Heating Heating Frate San	BTU/h kW BTU/h kW BTU/h kW kW A A A  mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa Pa kW  mm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49- 100 ( Cross fin (Aluminum ple Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi 0.20 Synthetic fiber unwoven of	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube) fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  Juction motor  0.23  cloth filter (long life type)  622.2 (67/8)
Coolin Heatir Power const. Currer Extern Dimer H x W Net we Heat e	g capac  g c	Cooling Heating Heating Heating Heating Heating Heating Heating Trate 380V 400V 415V Conjugate Gas (Flare) Liquid (Flare) diameter	BTU/h kW BTU/h kW RW kW A A A  mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa Pa Rw wm(in.) mm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-100) Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi 0.20 Synthetic fiber unwoven - ø19.05 (ø3/4)	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  uction motor  0.23  cloth filter (long life type)   Ø22.2 (Ø7/8)  (Ø3/8)  ((1-1/4)
Coolin Heatir Power const. Currer Extern Dimer H x W Net wo Heat e  Fan  Motor Air filte Refrig pipe d  Sound	ng capac rumption nt nal finish nsion x D eight exchange Type x Airflow External static pressure Type Type Type Type Type Type Type Typ	er Quantity rate  380V 400V 415V Case (Flare) Liquid (Flare) diameter 380V	BTU/h kW BTU/h kW A A A  mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa Pa kW  mm(in.) mm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74  Galva 470 x 125 (18-9/16 x 49-100) Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi 0.20 Synthetic fiber unwoven of \$\text{a}\$ 9.52 0.D.32	2/3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  114 x 44-1/8)  221)  Itle fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  Juction motor  0.23  cloth filter (long life type)   Ø22.2 (Ø7/8)  (Ø3/8)  ((1-1/4)
Power const. Currer Extern Dimer H x W Net we Heat e  Fan  Motor Air filte  Refrig pipe d	ng capac ng capac ng capac ng capac numption nt nal finish nsion x D eight exchange Type x Airflow External static pressure Type Output er (option erant iameter	Cooling Heating Heating Heating Heating Heating Heating Heating Trate 380V 400V 415V Conjugate Gas (Flare) Liquid (Flare) diameter	BTU/h kW BTU/h kW RW kW A A A  mm(in.) kg(lbs.)  m³/min L/s cfm Pa Pa Pa Rw wm(in.) mm(in.)	3-phase 380-415V 50Hz 22.4 76,400 21.2 72,300 0.34 / 0.42 0.34 / 0.42 0.58 / 0.74 0.58 / 0.74 Galva 470 x 125 (18-9/16 x 49-100) Cross fin (Aluminum pla Sirocco 28 467 989 140 / 200 150 / 210 160 / 220 3-phase indi 0.20 Synthetic fiber unwoven - ø19.05 (ø3/4)	2 / 3N~ 380-415V 60Hz  28.0  95,500  26.5  90,400  0.39 / 0.50  0.68 / 0.86  0.68 / 0.86  nized  0 x 1120  1/4 x 44-1/8)  221)  tet fin and copper tube)  fan x 2  35  583  1236  110 / 190  120 / 200  130 / 210  uction motor  0.23  cloth filter (long life type)   Ø22.2 (Ø7/8)  (Ø3/8)  ((1-1/4)

- 1. The cooling and heating capacites are the maximum capacites that were obitained by operating in the above air conditions and with a refrigerant pipe of about 7.5m.

  2. The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical infomation.

  3. The operating noise is the data that was obitained by measuring it 1.5m from the the bottom of the unit in an anechoic room. (Noise meter A-scale value)

  4. The figure of Electrical characteristic indicates at 240V 50Hz/230V60Hz (PEFY-P80, 140VHM-F type), at 220Pa setting at 415V (PEFY-P200, 250VMH-E-F type).

  5. When the 100% fresh air indoor units are connected, the maximum connectable indoor units to 1 outdoor unit are as follows

Heat pump models	Cooling only
110%(100% in case of heating below-5°C(23°F))	110%

- 110%(100% in case of heating belows of (23°F)) 110%

  6. Operational temp range is (Cooling: from 21°C(70°F)DB/15.5°C(60°F)WB to 43°C(109°F)DB/35°C(95°F)WB)

  \* Thermo off(Fan) operation automatically starts either when temperature is lower than 21°C(70°F)DB in cooling mode or when the temperature exceeds 20°C(68°F)DB in heating mode.

  7. As the room temp in sensed by the thermo in the remote controller or the one in the room, be sure to use either remote controller or room thermo.

  8. Autochangeover function or Dry mode is NOT available. Fan mode operation during the thermo off in Cooling/Heating mode.

  9. In any case, the air flow rate should be kept lower than 110% of the above chart. Please see "Fan curves" for the details.

  10. When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.

  11. Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation.

  Please be careful when positioning indoor unit air outlet grilles, ie take the necessary precautions for cold air, and also insulate rooms for dew condensation prevention as required.

  12. Air filter must be installed in the air intake side. The filter should be attached where easy maintenance in possible in case of usage of fild supply filters.

  13. Long life cannot be used with Hi-efficiency filter together (PEFY-P80 · 140VMH-E-F type).

Indoor Unit

# INDOOR UNIT Ceiling suspended type

# **PCFY-P VKM-E**



Designed for ultra-quiet operation and easy maintenance, provides exceptionally comfortable air-conditioning.



Extra slim, extra stylish

Sleek and slim with stylishly curved lines, the PCFY series blends right into any interior. It also features a single air outlet which allows the auto vane to act as a shutter when the unit is turned off

## Auto vane distributes air evenly

The auto vane swings up and down automatically to distribute air more evenly to every corner of the room.

#### Long life filter as standard

Long life filter is equipped as standard enabling up to 2,500 hours of operation (office use) without maintenance.

# Keeps airflow at optimum level according to ceiling height

The most suitable airflow can be selected for ceilings up to 4.2m high, enhancing air-conditioning efficiency and comfort. (P100/P125)

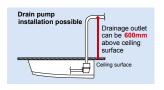
	Standard	High ceiling
Ceiling height	3.0(9-13/16)	4.2(13-3/4)

# **Greatly simplified installation**

The direct suspension system eliminates the task of removing the attachment fixture from the main unit, greatly shortening installation time.

## Drain pump option available with all models

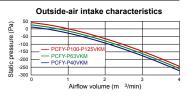
The pumping height of the optional drain pump has been increased from 400 mm to 600 mm, expanding flexibility in choosing unit location during installation work.



#### Outside-air intake

Units are equipped with a knock-out hole that enables the induction of fresh outsideair.

m (ft)



#### Equipped with automatic air-speed adjustment

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



				PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E				
Power	source				1-phase 220-240V 50H	z / 1-phase 220V 60Hz					
Caalin	~it	., *1	kW	4.5	7.1	11.2	14.0				
Coolini	g capacit	<sup>y</sup> *1	BTU/h	15,400	24,200	38,200	47,800				
Cooling	g capacit	y *4	kW	4.6	7.2	11.4	14.2				
Llootin	i	. *1	kW	5.0	8.0	12.5	16.0				
пеаш	g capacit	·y *1	BTU/h	17,100	27,300	42,700	54,600				
Power		Cooling	kW	0.04	0.05	0.09	0.11				
consu	mption	Heating	kW	0.04	0.05	0.09	0.11				
Curren		Cooling	Α	0.28	0.33	0.65	0.76				
Jurren	IL	Heating	Α	0.28	0.33	0.65	0.76				
Extern	al finish(l	Munsell N	lo.)		6.4Y 8	.9/ 0.4					
D:	sion H x	WD	mm	230 x 960 x 680	230 x 1,280 x 680	230 x 1,6	600 x 680				
Dimen	sion H X	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 6	3 x 26-3/4				
Net we	eight		kg(lbs.)	24(53)	32 (71)	36 (79)	38 (84)				
Heat e	xchangei	r		Cross fin (Aluminum fin and copper tube)							
	Type x	Quantity		Sirocco fan x 2	Sirocco fan x 3 Sirocco fan x 4						
	Airflow	*2	m³/min	10-11-12-13	14-15-16-18	21-24-26-28	21-24-27-31				
Fan	(Lo-Mid2		L/s	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517				
	(LO-IVIIUZ-	-iviiu i-mi)	cfm	353-388-424-459	494-530-565-636	742-847-918-989	742-847-953-1,095				
	External sta	atic pressure	Pa	0							
	Туре				DC n	notor					
Motor	Output		kW	0.090	0.095	0.1	60				
Air filte	r				PP Honeycor	mb (long life)					
Refrige	erant	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.0	5 (ø3/4) (Compatible)				
pipe diameter		Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)	ø6.35 (ø1/4)						
Field drain pipe d		diameter	mm(in.)		O.D. 2	26 (1)					
	pressure 12-Mid1-H		dB(A)	29-32-34-36	31-33-35-37	36-38-41-43	36-39-42-44				

- \*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 Airflw rate/Sound pressure level are shown in (low-middle 2-middle 1-high).
- \*3 It is measured in anechoic room.
- \*4 Reference data under condition of Indoor 27°C(81°F)DB/19.5°C(67°F)WB, Outdoor 35°C(95°F)DB

# INDOOR UNIT \_\_\_\_ Wall mounted type

# PKFY-P VBM-E PKFY-P VHM-E PKFY-P VKM-E



# Elegant Design and Compact Dimensions Ideal for Offices, Stores and Residential Uses.



Capacity	range							
Capacity	P15	P20	P25	P32	P40	P50	P63	P100
VBM*		0						
VHM				0	0			
VKM								0

<sup>\*</sup>External LEV box (optional) is recommended for hotels, hospitals or dormitories where the background noise is low.

#### 4-way piping provides more flexibility in selecting installation sites

All piping including drainage can be connected from the rear, right, base, and left of the unit, providing much greater flexibility in piping and selecting installation site.

# Flat panel & Pure white finish

All models have changed from the grill design, adopting the flat panel layout. Pursuing a design that harmonizes with virtually any interior, the unit color has been changed from white to pure white.



**PKFY-P VHM features** 

#### **Built-in signal receiver**

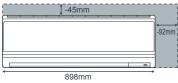
# **PKFY-P VBM features**

Compact profile

**Quiet operation** 

# Compact size of 898mm

Width size reduced to match small size buildings and offices.



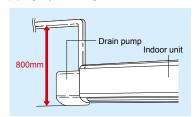
Comparison with PKFY-P VGM-E

# Light unit

Approx. 3kg reduced from conventional model (P32-50). Easier installation.

# Drain pump (option)

The optional drain pump allows the drain connection to be raised as high as 800mm, allowing more freedom in piping layout design.



				PKFY-P15VBM-E	PKFY-P20VBM-E	PKFY-P25VBM-E	PKFY-P32VHM-E	PKFY-P40VHM-E	PKFY-P50VHM-E		
Power	source			-		1-phase 220-240V 50H	lz / 1-phase 220V 60Hz	<u> </u>			
		*1	kW	1.7	2.2	2.8	3.6	4.5	5.6		
Cooling capaci		ity *1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100		
Cooling	g capac	ity *5	kW	1.7	2.2	2.8	3.7	4.6	5.7		
		*1	kW	1.9	2.5	3.2	4.0	5.0	6.3		
Heating capacity		<sup>ity</sup> *1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500		
Power Cooling*4 kW			kW		0.04			0.04			
consun	nption	Heating	kW		0.04			0.03			
_		Cooling *4	Α		0.20			0.40			
Current Heating A					0.20			0.30			
Externa	al finish	(Munsell N	No.)		Plastic (1.0Y 9.2/0.2)			Plastic (1.0Y 9.2/0.2)			
Dimens	sion H	x W x D	mm(in.)	295 x 815	5 x 225 (11-5/8 x 32-1/8	3 x 8-7/8)	295 x 898 x 249(11-5/8 x 35-3/8 x 9-13/16)				
Net we	ight		kg(lbs.)								
Heat ex	xchang	er			Cross fin (Aluminum fin and copper tube)						
	Type :	Quantity		Line flow fan x 1							
	Airfloy	*2	m³/min	4.9-5.0-5.2-5.3	4.9-5.2	-5.6-5.9	9-10-11	9-10.5-11.5	9-10.5-12		
Fan		v rate I2-Mid1-Hi)	L/s	82-83-87-88	82-87-	-93-98	150-167-183	150-175-192	150-175-200		
	(LO-IVIIC	12-IVIIU I-I II)	cfm	173-177-184-187	173-184	-198-208	318-353-388	318-371-406	318-371-424		
	External	static pressure	Pa			(	Ó				
Motor	Type			1	-phase induction motor	r		DC motor			
MOIOI	Outpu	t	kW		0.017			0.030			
Air filte	r					PP Hon	eycomb				
		Gas	mm(in.)			ø12.7 (ø1/2)			ø12.7 (ø1/2) / ø15.88 (ø5/8)		
Refrigerant		(Flare)	111111(111.)			Ø12.7 (Ø172)			(Compatible)		
pipe diameter		Liquid	mm(in.)				ø6.35 (ø1/4) / ø9.52 (ø3/8)				
(Fla		(Flare)	111111(111.)			ø6.35 (ø1/4)			(Compatible)		
Field dr	Field drain pipe diameter mr					I.D.16	6 (5/8)				
Sound (Lo-Mic	•	re level Hi) *2 *3	dB(A)	29-31-32-33	29-31-	-34-36	34-37-41	34-38-41	34-39-43		

#### 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
- $^{\star}2$  Airflow rate/Sound pressure level are in (low-middle2-middle1-high).
- \*3 It is measured in anechoic room.
- \*4 Electrical characteristic of cooling are included optional drain-pump.
- $^{\star}5 \quad \text{Reference data under condition of Indoor } 27^{\circ}\text{C}(81^{\circ}\text{F})\text{DB}/19.5^{\circ}\text{C}(67^{\circ}\text{F})\text{WB, Outdoor } 35^{\circ}\text{C}(95^{\circ}\text{F})\text{DB}/19.5^{\circ}\text{C}(67^{\circ}\text{F})\text{WB, Outdoor } 35^{\circ}\text{C}(95^{\circ}\text{F})\text{DB}/19.5^{\circ}\text{C}(67^{\circ}\text{F})\text{WB, Outdoor } 35^{\circ}\text{C}(95^{\circ}\text{F})\text{DB}/19.5^{\circ}\text{C}(95^{\circ}\text{F})\text{C}/19.5^{\circ}\text{C}(95^{\circ}\text{F})\text{C}/19.5^{\circ}\text{C$

				PKFY-P63VKM-E	PKFY-P100VKM-E				
Power	source			1-phase 220-230-240V 50	DHz / 1-phase 220V 60Hz				
0		*1	kW	7.1	11.2				
Cooling	capacit	y *1	BTU/h	24,200	38,200				
Cooling	capacit	y *5	kW	7.2	11.4				
Llastine		. *1	kW	8.0	12.5				
пеаші	g capacit	·y *1	BTU/h	27,300	42,600				
Power	C	ooling *4	kW	0.05	0.08				
consun	nption H	eating	kW	0.04	0.07				
Curren	C	ooling *4	Α	0.37	0.58				
Curren	H	eating	Α	0.30	0.51				
Externa	al finish(I	Munsell N	lo.)	Plastic (1.0	)Y 9.2/0.2)				
Dimens	ion H x	WxD	mm(in.)	365 x 1,170 x 295 (14-	3/8 x 46-1/16 x 11-5/8)				
Net we	ight		kg(lbs.)	21 (	46)				
Heat ex	change	r		Cross fin (Aluminum	fin and copper tube)				
	Type x	Quantity		Line flow fan x 1					
	Airflow	rate *2	m³/min	16-20	20-26				
Fan	(Lo-Hi)		L/s	267-333	333-433				
	(LU-111)		cfm	565-706	706-918				
	External sta	atic pressure	Pa	C					
Motor	Туре			DC n					
IVIOLOI	Output		kW	0.0					
Air filte	r			PP Hone					
		Gas	mm(in.)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4)				
Refrige	rant	(Flare)	11111(111.)	#10.00 (#5/0)	(Compatible)				
pipe dia	ameter	Liquid (Flare)	mm(in.)	ø9.52	2 (Ø3/8)				
Field dr	Field drain pipe		mm(in.)	I.D. 10	6(5/8)				
	pressure		ì í	39-45	41-49				
(Lo-Hi)		*2 *3	dB(A)	ა <del>ყ-4</del> ა	41-49				

- \*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).
- \*4 Electrical characteristic of cooling are included optional drain-pump.
- \*5 Reference data under condition of Indoor 27°C(81°F)DB/19.5°C(67°F)WB, Outdoor 35°C(95°F)DB

# **INDOOR UNIT** Floor standing exposed

# PFFY-P VKM-E2



For living rooms, bed rooms, or offices where a sophisticated design is required. The latest Mitsubishi innovation - floor-standing air-conditioner sophisticated in design, rich in function.



#### **Quiet operation**

Mitsubishi Electric air conditioners have always been some of the quietest models available in the market. Our new floorstanding models are no exception.

It can create a silent and comfortable space where the occupants would not even recognize the existence of air conditioner operation.

\*2.5kw class

# Noise level 80dB

#### **Sophisticated Design**

From Mitsubishi Electric, an innovative new floor-standing air-conditioner. Our pleasing mix of streamlined form and diversified function. Engineered to

keep room walls free, furnish comfy cooling in summer, toasty heating in winter.

The "Glossy Pure White" colour ensures a deluxe look, the perfect match for any room. Both upper and lower air outlets remain closed when switched OFF, in a smart and striking

A superb new air-conditioner from Mitsubishi, providing a handsome fit for your own distinctive interior.

# Slim but Mighty

The unit body is slim and trim, the essence in compact. An ideal size for living rooms, bedrooms, and more. The removable and washable front panel makes cleaning



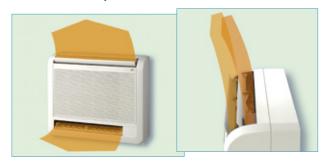
allows your air-conditioner stay beautiful while keeping its energy-efficient operation always possible.

#### **Optimum Air Distribution**

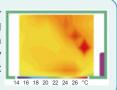
Comfy room temperatures are realized by the optimum, powerful and efficient air distribution through upper and lower air outlets.

The upper vane angle is remote controllable, with 5 air flow direction levels (+Swing and Auto modes) and 4 wind power levels (+Auto mode).

By setting the vane angle almost vertical, annoying direct wind can be avoided for your better comfort.



The air from both upper and lower air outlets is optimally controlled and distributed evenly to every comer of the room. In heating mode, the warm air is smartly controlled to stay at the floor level: Your feet do not feel chilled any more!





				PFFY-P20VKM-E2	PFFY-P25VKM-E2	PFFY-P32VKM-E2	PFFY-P40VKM-E2				
Power	source				1-phase 220	I-240V 50Hz					
o "		. *1	kW	2.2	2.8	3.6	4.5				
Cooling	g capaci	<sup>ty</sup> *1	BTU/h	7,500	9,600	12,300	15,400				
Cooling	g capaci	ty *4	kW	2.2	2.8	3.7	4.6				
114:-		. *1	kW	2.5	3.2	4.0	5.0				
Heating	g capaci	<sup>ty</sup> *1	BTU/h	8,500	10,900	13,600	17,100				
Power		Cooling	kW	0.025	0.025	0.025	0.028				
consun	nption	Heating	kW	0.025	0.025	0.025	0.028				
Curren		Cooling	Α	0.20	0.20	0.20	0.24				
Junen	ı	Heating	Α	0.20	0.20	0.20	0.24				
Externa	al finish				Plastic (P	ure white)					
Dimens	sion		mm	600 × 700 × 200							
H x W	x D		in.	23-5/8 x 27-9/16 x 7-7/8							
Net we	ight		kg(lbs.)	15 (34)							
Heat e	xchange	er		Cross fin (Alminium plate fin and copper tube)							
	Туре х	Quantity		Line flow fan x 2							
Fan	-	rate *2 d-Hi-SHi)	m³/min	5.9-6.8-7.6-8.7	6.1-7.0-8.0-9.1	6.1-7.0-8.0-9.1	8.0-9.0-9.5-10.7				
	Airflow (Lo-Mid Eaterna pressur Type Output r filter efrigerant		Pa		(	0					
	Туре				DC n	notor					
Motor	Output		kW		0.03	3 x 2					
Air filte	r				PP honeycomb fab	ric (Catechin Filter)					
Refrige	erant	Gas(Flare)	mm(in.)	912.7 (81/2)							
pipe di	ameter	Liquid(Flare)	mm(in.)		ø6.35	(ø1/4)					
Field drain pipe diameter					I.D.16	5 (5/8)					
	pressured-Hi-SHi		dB(A)	27-31-34-37	28-32-35-38	28-32-35-38	35-38-42-44				

- \*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-shigh).
- \*3 It is measured in anechoic room.
- $^{\star}4~~Reference~data~under~condition~of~Indoor~27^{\circ}C(81^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.$

# INDOOR UNIT Floor standing exposed

# PFFY-P VLEM-E



A compact cased unit providing simple, effective air conditioning in perimeter zones.



Its basic design is suitable for various locations such as offices, shops, and hospitals. A remote controller can be mounted on the unit on site.

Compact unit for easy air conditioning in perimeter zones.

The unit is easy to install, and at only 220mm (8-11/16 in.) deep offers an unobtrusive method of delivering highly efficient air conditioning performance.

				PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E	PFFY-P50VLEM-E	PFFY-P63VLEM-E			
Power	source				1-p	hase 220-240V 50Hz	1-phase 208-230V 60	Hz				
Cooling capacity		*1	kW	2.2	2.8	3.6	4.5	5.6	7.1			
Cooling	g capacit	y *1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200			
Cooling	g capacit	y *5	kW	2.2	2.8	3.7	4.6	5.7	7.2			
Heating capacity		. *1	kW	2.5	3.2	4.0	5.0	6.3	8.0			
Heating capacit		y *1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300			
		Cooling	kW	0.04	/ 0.06	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11			
consu	mption	Heating	kW	0.04	/ 0.06	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11			
0		Cooling	Α	0.19	/ 0.25	0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47			
Curren	τ	Heating	Α	0.19	/ 0.25	0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47			
Externa	al finish(N	/Junsell N	lo.)			Acrylic pai	nt (5Y 8/1)					
D:	sion H x	WD	mm	630 x 1,0	050 x 220	630 x 1,1	70 x 220	630 x 1,4	410 x 220			
Dimen	sion H X	WXD	in.	24-13/16 x 41-3/8 x 8-11/16		24-13/16 x 46-1/8 x 8-11/16		24-13/16 x 55-	-9/16 x 8-11/16			
Net we	ight		kg(lbs.)	28	(62)	30 (67)	32 (71)	36 (80)	37 (82)			
Heat e	xchanger				Cross fin (Aluminum plate fin and copper tube)							
	Type x	Quantity		Sirocco	fan x 1		Sirocco	fan x 2				
	A inflant	roto	m³/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5			
Fan	Airflow	*2	L/s	92-	108	117-150	150-183	200-233	200-258			
	(Lo-Hi)		cfm	194	-230	247-318	318-388	424-494	424-547			
	External sta	itic pressure	Pa	Ö								
Motor	Туре					1-phase ind	uction motor					
IVIOLOI	Output		kW	0.0	)15	0.018	0.030	0.035	0.050			
Air filte	r					PP Honeycomb	abric (washable)					
Refrige	erant	Gas (Flare)	mm(in.)			ø12.7 (ø1/2)			ø15.88 (ø5/8)			
pipe diameter		Liquid (Flare)	mm(in.)				ø9.52 (ø3/8)					
Field di	ain pipe	diameter	mm(in.)		I.D.26 (1)	<accessory hose="" o.d.:<="" td=""><td>27 (1-3/32) (top end :20</td><td>(13/16))&gt;</td><td></td></accessory>	27 (1-3/32) (top end :20	(13/16))>				
Sound (Lo-Hi)	pressure *2	*level *3 *4	dB(A)	34	-40	35-40	38-	-43	40-46			

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

  - · 1dB(A) lower at AC230V/50Hz · 2dB(A) lower at AC220V/50Hz · 3dB(A) lower at 1.5m x 1.5m point
- \*4 It is measured in anechoic room.
- $^{\star}5 \quad \text{Reference data under condition of Indoor } 27^{\circ}\text{C}(81^{\circ}\text{F})\text{DB}/19.5^{\circ}\text{C}(67^{\circ}\text{F})\text{WB, Outdoor } 35^{\circ}\text{C}(95^{\circ}\text{F})\text{DB}$

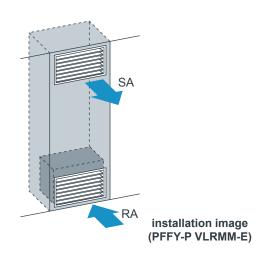
# INDOOR UNIT Floor mounted concealed type

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



# Easily installable floor-standing concealed unit for perimeter zone





# Compact unit for easy air conditioning in perimeter zones.

The unit is designed for applications requiring a built-in, concealed, floor-standing unit.

# Installation flexibility

The unit can be field-converted from top discharge to front discharge to increase installation flexibility.

# Maximum external static pressure 60Pa (VLRMM model)

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

				PFFY-P20VLRM-E	PFFY-P25VLRM-E	PFFY-P32VLRM-E	PFFY-P40VLRM-E	PFFY-P50VLRM-E	PFFY-P63VLRM-E			
Power source *1 kV					1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz							
		*1	kW	2.2	2.8	3.6	4.5	5.6	7.1			
Coolin	g capacit	y *1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200			
Cooling	g capacit	y *5	kW	2.2	2.8	3.7	4.6	5.7	7.2			
Heating capacity		*1	kW	2.5	3.2	4.0	5.0	6.3	8.0			
		·y *1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300			
Power Cooling		Cooling	kW	0.04	/ 0.06	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11			
consu	mption	Heating	kW	0.04	/ 0.06	0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11			
Curran		Cooling	Α	0.19	/ 0.25	0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47			
Curren	ıı	Heating	Α	0.19	/ 0.25	0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47			
Extern	al finish(N	Munsell N	lo.)			Galvanized	steel plate					
D:	-1 11	\\\ D	mm	639 x 88	86 x 220	639 x 1,0	06 x 220	639 x 1,2	246 x 220			
Dimen	sion H x	WXD	in.	25-3/16 x 34-1	5/16 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-	1/16 x 8-11/16			
Net we	ight		kg(lbs.)	22	(49)	24 (53)	25 (56)	29 (64)	30 (67)			
Heat e	xchanger	r	Ţ, , ,		Cross fin (Aluminum plate fin and copper tube)							
	Type x	Quantity		Sirocco	Sirocco fan x 1         Sirocco fan x 2           5.5-6.5         7.0-9.0         9.0-11.0         12.0-14.0         12.0-15.5							
	Airflow	*2	m³/min	5.5	5.5-6.5		9.0-11.0	12.0-14.0	12.0-15.5			
Fan		rate	L/s	92-	108	117-150	150-183	200-233	200-258			
	(Lo-Hi)		cfm	194	-230	247-318	318-388	424-494	424-547			
	External sta	atic pressure	Pa	0								
Motor	Туре					1-phase ind	uction motor					
MOTOL	Output		kW	0.0	)15	0.018	0.030	0.035	0.050			
Air filte	r					PP Honeycomb	abric (washable)					
Refrige	erant	Gas (Flare)	mm(in.)		ø12.7 (ø1/2)							
pipe di	ameter	Liquid (Flare)	mm(in.)		ø6.35 (ø1/4)							
Field d	rain pipe	diameter	mm(in.)		I.D.26 (1)	<accessory hose="" o.d.:<="" td=""><td>27 (1-3/32) (top end :20</td><td>(13/16))&gt;</td><td></td></accessory>	27 (1-3/32) (top end :20	(13/16))>				
Sound (Lo-Hi)	pressure	e level *2 *3 *4	dB(A)	34	-40	35-40	38-	-43	40-46			

#### Notes:

- \*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition. Cooling Indoor: 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB Heating Indoor: 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
- \*2 Air flow rate/Sound pressure level are in (Low-High)
- \*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz 1dB(A) lower at AC230V/50Hz 2dB(A) lower at AC
  - · 2dB(A) lower at AC220V/50Hz · 3dB(A) lower at 1.5m x 1.5m point
- \*5 Reference data under condition of Indoor 27°C(81°F)DB/19.5°C(67°F)WB, Outdoor 35°C(95°F)DB

7.59.5.5					PFFY-P20VLRMM-E	PFFY-P25VLRMM-E	PFFY-P32VLRMM-E	PFFY-P40VLRMM-E	PFFY-P50VLRMM-E	PFFY-P63VLRMM-E			
Cooling capacity													
Cooling capacity	Caslina		. *1	kW	2.2	2.8	3.6	4.5	5.6	7.1			
Heating capacity *1	Cooling	y capacii	y *1	BTU/h	7,500 9,600		12,300	15,400	19,100	24,200			
Heating capacity	Cooling	g capacit	y *4	kW	2.2	2.8	3.7	4.6	5.7	7.2			
Power   Cooling   KW   O.04   O.04   O.05   O.05   O.05   O.07	Hooting	a conneit	., *1	kW	2.5	3.2	4.0	5.0	6.3	5.7			
Consumption   Heating   KW   0.04   0.04   0.05   0.05   0.07	Пеаші	y capacii	y *1	BTU/h	8,500	10,900	13,600	17,100	21,500	8.0			
Current   Cooling   A   0.34   0.38   0.43   0.48   0.07	Power		Cooling	kW	0.	04	0.04	0.05	0.05	27,300			
Current         Heating         A         0.34         0.38         0.43         0.48         0.59           External finish(Munsell No.)         Galvanized steel plate         0.59           Dimension H x W x D         mm         639 x 886 x 220         639 x 1,246 x 220         639 x 1,246 x 220           In.         25-3/16 x 34-15/16 x 8-11/16         25-3/16 x 39-5/8 x 8-11/16         25-3/16 x 49-11/16 x 8-11/16 x 8-11/16         25-3/16 x 49-11/16 x 8-11/16 x 8-11/16 x 8-11/16         25-3/16 x 39-5/8 x 8-11/16         25-3/16 x 49-11/16 x 8-11/16         25-3/16 x 39-5/8 x 8-11/16         25-3/16 x 49-11/16 x 8-11/1625 (56)         29 (64)           Feature with the sequentity         Sirocco fan x 1         Sirocco fan x 2         Sirocco fan x 2         Sirocco fan x 2         Sirocco fan x 2         108-125-150         133-158-183         167-200-233         183-217-258         183-217-258         282-335-388         353-424-494         388-459-547         20/40/60         Description of the properties of the propertie	consu	mption	Heating	kW	0.	04	0.04	0.05					
Heating   A   0.34   0.38   0.43   0.48   0.59	Curron		Cooling	Α	0.	34	0.38	0.43	0.48	0.07			
Dimension H x W x D   mm   639 x 886 x 220   639 x 1,006 x 220   639 x 1,246 x 220	Heating /				0.	34	0.38	0.43	0.48	0.59			
Dimension H x W x D   in.   25-3/16 x 34-15/16 x 8-11/16   25-3/16 x 39-5/8 x 8-11/16   25-3/16 x 49-1/16 x 8-11/1625 (56)	Externa	al finish(I	Munsell N	<b>l</b> o.)			Galvanized	steel plate		0.59			
Net weight   Kg(lbs.)   25-3/16 x 34-15/16 x 8-11/16   25-3/16 x 39-5/8 x 8-11/16   25-3/16 x 49-1/16 x 8-11/16 x 8-11/16 25-3/16 x 39-5/8 x 8-11/16   25-3/16 x 49-1/16 x 8-11/16 x 8-11/1625 (56)   29 (64)	Dimone	sion H v	W v D	mm	639 x 8	86 x 220	639 x 1,0	06 x 220	639 x 1,	246 x 220			
Type x Quantity	Dilliens	SIUII FI X	WXD	in.	25-3/16 x 34-1	15/16 x 8-11/16	25-3/16 x 39-	5/8 x 8-11/16	25-3/16 x 49-1/16 x 8-11/1625 (56)				
Type x Quantity   Sirocco fan x 1   Sirocco fan x 2	Net we	ight		kg(lbs.)	21	(47)	24 (53)	25 (56)	29	(64)			
Fan Airflow rate (Lo-Mid-Hi)	Heat ex	xchange	r										
Fan         Airflow rate (Lo-Mid-Hi)         L/s         75-92-108         108-125-150         133-158-183         167-200-233         183-217-258           External static pressure ½         Pa         20/40/60           Motor         Type Output         kW         0.096           Air filter         PP Honeycomb fabric (washable)           Refrigerant pipe diameter         Gas mm(in.) Liquid mm(in.)         Ø12.7 (Ø1/2) Brazed         Ø15.88 (Ø5/8) Braze           Field drain pipe diameter         Liquid mm(in.)         I.D.26 (1) <accessory (1-3="" (13="" (top="" 16))="" 32)="" :20="" end="" hose="" o.d.27="">           Sound pressure         20Pa dB(A)         31-36-40         27-32-37         30-36-40         32-37-41         35-40-44</accessory>		Type x	Quantity										
Co-Mid-Hi		Airflow	roto	m³/min	4.5-5	.5-6.5	6.5-7.5-9.0	8.0-9.5-11.0	10.0-12.0-14.0	11.0-13.0-15.5			
Cfm   159-194-230   230-265-318   282-335-388   353-424-494   388-459-547	Fan	1		L/s	75-9	2-108	108-125-150	133-158-183	167-200-233	183-217-258			
Type		(LO-IVIIU-I	11)	cfm	159-1	94-230	230-265-318	282-335-388	353-424-494	388-459-547			
Motor Output         kW         0.096           Air filter         PP Honeycomb fabric (washable)           Refrigerant pipe diameter         Gas Liquid mm(in.)         Ø12.7 (Ø1/2) Brazed         Ø15.88 (Ø5/8) Brazed           Field drain pipe diameter         Liquid mm(in.)         Ø6.35 (Ø1/4) Brazed         Ø9.52 (Ø3/8) Brazed           Found pressure         ZOPa         dB(A)         31-36-40         27-32-37         30-36-40         32-37-41         35-40-44		External stati	c pressure *2	Pa			20/4	0/60					
Output         kW         0.096           Air filter         PP Honeycomb fabric (washable)           Refrigerant pipe diameter         Gas Liquid Liquid mm(in.)         #12.7 (#1/2) Brazed         #2.7 (#1/2) Brazed         #2.7 (#2.	Motor	Туре					DC brushl	ess motor					
Refrigerant pipe diameter         Gas Liquid drain pipe diameter         mm(in.)         ø12.7 (ø1/2) Brazed         ø15.88 (ø5/8) Brazed         ø9.52 (ø3/8) Brazed           Field drain pipe diameter         mm(in.)         I.D.26 (1) < Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>           Sound pressure         20Pa         dB(A)         31-36-40         27-32-37         30-36-40         32-37-41         35-40-44	IVIOLOI	Output		kW			0.0	96					
pipe diameter         Liquid         mm(in.)         ø6.35 (ø1/4) Brazed         ø9.52 (ø3/8) Braze           Field drain pipe diameter         mm(in.)         I.D.26 (1) <accessory (1-3="" (13="" (top="" 16))="" 32)="" :20="" end="" hose="" o.d.27="">           Sound pressure         20Pa         dB(A)         31-36-40         27-32-37         30-36-40         32-37-41         35-40-44</accessory>	Air filte	r					PP Honeycomb f	abric (washable)					
Field drain pipe diameter         mm(in.)         I.D.26 (1) <accessory (1-3="" (13="" (top="" 16))="" 32)="" :20="" end="" hose="" o.d.27="">           Sound pressure         20Pa         dB(A)         31-36-40         27-32-37         30-36-40         32-37-41         35-40-44</accessory>	Refrige	erant	Gas	mm(in.)			ø12.7 (ø1/	2) Brazed		ø15.88 (ø5/8) Brazed			
Sound pressure 20Pa dB(A) 31-36-40 27-32-37 30-36-40 32-37-41 35-40-44	pipe dia	ameter	Liquid	mm(in.)						ø9.52 (ø3/8) Brazed			
2.2.4	Field dr	ain pipe	diameter	mm(in.)		I.D.26 (1)	Accessory hose O.D.2	27 (1-3/32) (top end :20	) (13/16))>				
level (Lo-Mid-Hi)   40Pa   dB(A)   34-39-42   30-35-41   32-38-42   35-40-44   36-42-47	Sound p	oressure	20Pa	dB(A)	31-3	36-40				35-40-44			
	level (Lo	o-Mid-Hi)	40Pa	dB(A)	34-3	39-42	30-35-41	32-38-42	35-40-44	36-42-47			
*3 60Pa dB(A) 35-40-43 32-37-42 3.5-39-44 36-41-45 38-43-48		*3	60Pa	dB(A)	35-4	10-43	32-37-42	3.5-39-44	36-41-45	38-43-48			

# Notes:

- \*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition. Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
  - pipe length: 7.5m(24-9/16ft) Height difference: 0m(0ft)
- \*2 The external static pressure is set to 20Pa at factory shipment.
- \*3 The sound pressure level in operation is measured at 1m apart from the front side and the bottom side of the unit in anechoic room. (Noise meter A-scale value) Connect the duct of 1m in length to the air outlet.
- $^{\star}4~~Reference~data~under~condition~of~Indoor~27^{\circ}C(81^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(67^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)DB/19.5^{\circ}C(95^{\circ}F)WB,~Outdoor~35^{\circ}C(95^{\circ}F)DB/19.$

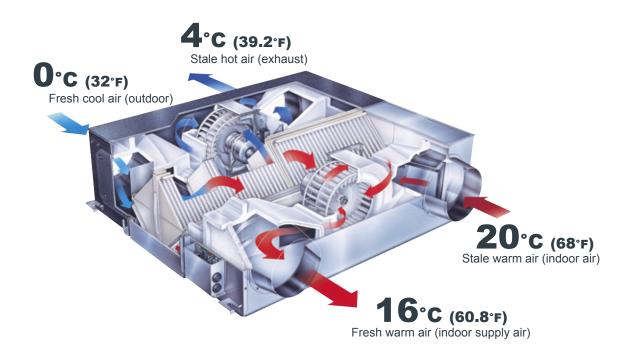
Indoor Unit





# The Ventilation System for Enhanced Air Quality - Lossnay

Combine with Lossnay Ventilation System Enhanced Air Quality. Unified Control System Allows Greater Design Freedom.



 LGH-15RX5
 [150m³/h Single phase 220-240V 50Hz]
 LGH-80RX5
 [800m³/h Single phase 220-240V 50Hz]

 LGH-25RX5
 [250m³/h Single phase 220-240V 50Hz]
 LGH-100RX5
 [1000m³/h Single phase 220-240V 50Hz]

 LGH-35RX5
 [350m³/h Single phase 220-240V 50Hz]
 LGH-150RX5
 [1500m³/h Single phase 220-240V 50Hz]

 LGH-65RX5
 [650m³/h Single phase 220-240V 50Hz]
 LGH-200RX5
 [2000m³/h Single phase 220-240V 50Hz]

# Heat-Exchange Efficiency Obtainable Only with Lossnay.

The secret to the unmatched comfort provided by Lossnay core is the cross-flow, plate-fin structure off the heat-exchange unit. A diaphragm made of a specially processed paper fully separates inducted and exhausted air supplies, ensuring that only fresh air is introduced to the indoor environment.

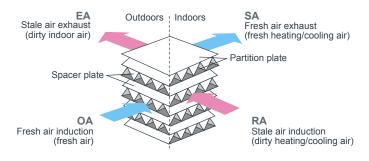
The superior heat-transfer and moisture permeability of the special paper assure highly effective total heat exchange (temperature and humidity) when inducted and exhausted air supplies cross in the Lossnay core.

# **LOSSNAY Technology**

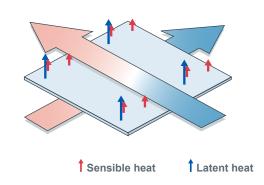
- Two paths ventilation
  - LOSSNAY simultaneously intakes Fresh Air and exhausts Dirty Air.
- Total energy recover

LOSSNAY returns BOTH sensible heat and latent heat.

# A. Two paths ventilation

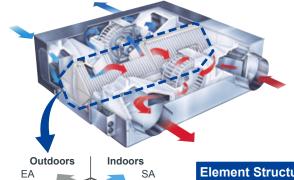


# B. Total Energy transfer



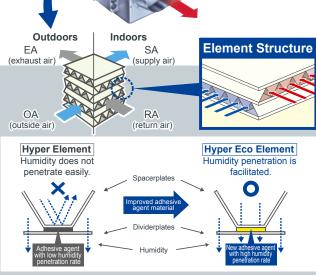
# Hyper Eco Core

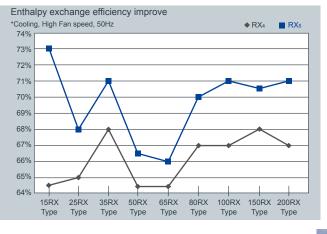
Better energy conservation by improved total heat exchange efficiency.



# Introducing the new Hyper Eco Element

Mitsubishi's newly developed Hyper Eco Element is on board, offering the industry's best total heat exchange efficiency. Energy conservation performance has been improved not only by reducing the air conditioning load associated with ventilation, but also by facilitating humidity penetration.







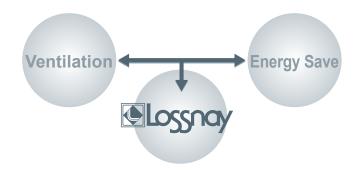
# Why LOSSNAY is necessary.

- Without ventilation...
  - Lack of Ventilation makes people sick by dirty indoor air including CO<sub>2</sub>, Dust, Bacteria.
- If just opening windows...

Opening windows eliminates dirty air BUT wastes much air-con energy.

So we recommend LOSSNAY

LOSSNAY is simultaneous pursuit of Ventilation and Energy Saving.



## • This is LOSSNAY!

# ADVANTAGES

Clean air supply, dirty air exhaust by Two air paths (OA $\rightarrow$ SA and RA $\rightarrow$ EA)

Energy recovery by LOSSNAY Core

Free cooling by bypass damper

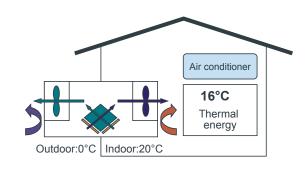
MULTI VENTILATION MODE for multi ventilation request (Power supply, Power supply/exhaust, Power exhaust)

# **UNIT STRUCTURE**

# OA (outside air) Bypass damper RA (return air)

SA (supply air)

# **Energy Recovery Image**



How much recovery?

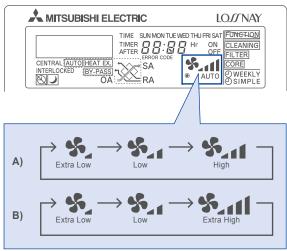
OA temp. : 0°C →

SA temp. : 16°C (Indoor 20°C)

# **Extra Low Mode**

Additional energy conservation by using a four-level air volume system that allows more precise control.

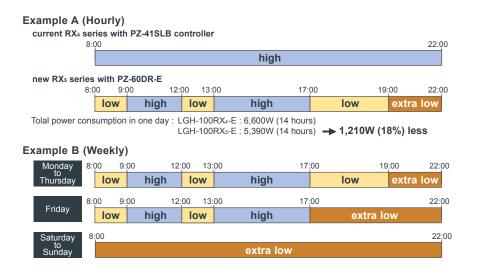
In addition to the conventional Extra High, High, and Low modes, an Extra Low mode is added to provide a more dynamic range of air volume settings and versatility in a variety of installation environments, yielding much better energy conservation. Using a simplified timer function, it switches to Extra Low operation when the operation stop button is activated and it is accordingly possible to implement 24-hour energy conservation ventilation.



- \* The Extra High and High ventilation modes are selectable by the initial setting
- \* Extra-Low not equipped LGH-150RX5 and 200RX5.
- \* The ventilation mode is actually selected in three levels, and the remote controller also displays these three levels.

# **Energy Saving by WEEKLY timer**

Air volume level can be set hourly (max 8 times) and weekly. You can pre-set air volume according to the predictable requirement so that LOSSNAY can automatically operate at only necessary air-speed at the specified time period, which saves power consumption while maintaining the indoor air quality. Besides, once the weekly timer has been set, no switching on-off is required.



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# New function: "By-pass" Ventilation External Control Setting

In addition to the automatic damper open/close function, open/close control via external devices is now possible, delivering a "By-pass" ventilation system that is suitable to the installed environment.

Establish the wire connection by inserting the optional remote display adaptor (PAC-SA88HA-E) in the connector CN16 (Ventilation mode selector).

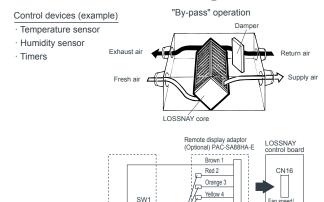
With SW1 is "ON", the ventilation mode of LOSSNAY is changed to the By-pass ventilation regardless of the setting on the remote controller.

#### Automatic ventilation setting

The automatic damper mode automatically provides the correct ventilation for the conditions in the room. The following shows the effect "By-pass" ventilation will have under various conditions.

#### 1. Reduces cooling load

If the air outside is cooler than the air inside the building during the cooling season (such as early morning or at night), "By-pass" ventilation will draw in the cooler outside air and reduce the cooling load on the system.



## 2. Night purge

SW1: By-pass ventilation operation switch (When closed: For By-pass ventilation operation)

"By-pass" ventilation can be used to release hot air from inside the building that has accumulated in buildings a business district during the hot summer season.

Green 5

Not used. Insulate completely

# Office equipment room cooling During cold season, fresh air can be drawn in and used as is to cool rooms where the temperature has risen due to the use of office equipment.

- \* When the outdoor air tempereture drops lower than 8°C it changes to the heat exchange ventilation. (Display of the remote controller does not change.)
- \* In the case of "By-pass" ventilation, the supply air temperature slightly rises more than the outside air temperature because of the heat effect around the ducts or the unit motors.

# **New Remote Controller PZ-60DR-E**

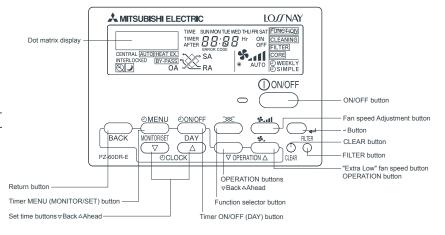
A new remote controller for the RX5 series is now available. In addition to boosting the energy conservation performance of the main unit, the remote controller features a variety of new functions which also pursue additional energy conservation.

The appearance of the remote controller conforms to Mitsubishi air conditioner interface design standards.

Functions that were set using Dip-Switch on the LOSSNAY main unit can now be configured as needed using the new remote controller.

This eliminates the need to crawl under the eaves to change operation settings.

Also, a newly adopted dot matrix display provides much more information, making it easy to check maintenance indications, operation status display, and explanations required when configuring settings.







# Model line up

# ■ Specification

# LGH-15~100RX5-E

#### LGH-15RX5-E

Model					LGH-1	5RX₅-E					
Frequency / Power source		50Hz / Single phase 220-240V									
Ventilation mode			LOSSNAY	ventilation			By-pass ve	entilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low		
Current (A)		0.44-0.46	0.37-0.38	0.25-0.25	0.14-0.15	0.45-0.46	0.37-0.38	0.25-0.26	0.14-0.15		
Power consumption (W)		96-110	80-90	53-59	30-35	97-110	81-91	54-61	30-35		
Air volume	(m³/h)	150	150	110	70	150	150	110	70		
Air volume	(L/s)	42	42	31	19	42	42	31	19		
External static proceurs	(mmH <sub>2</sub> O)	10.2-10.7	6.6-7.1	3.6-4.1	1.4	10.2-10.7	6.6-7.1	3.6-4.1	1.4		
External static pressure	(Pa)	100-105	65-70	35-40	14	100-105	65-70	35-40	14		
Temperature exchange efficiency	[%)	82.0	82.0	84.0	85.5	_	_	_	_		
Enthalpy exchange efficiency (%)	Heating	75.0	75.0	77.5	81.0	_	_	_	_		
Enthalpy exchange emclency (78)	Cooling	73.0	73.0	76.5	81.0	_	_	_	_		
Noise (dB) (Measured at 1.5m under the center of panel in an anechoeic chamber)		27.5-28	26.5-27	22-23.5	18	28.5-29	27-28	23-24	18-19		
Weight (kg)		20									
Starting current					Under 0	.8 A Less					

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 6 dB greater than the indicated value. (at High Fan speed)

# LGH-25RX5-E

Model					LGH-2	5RX₅-E								
Frequency / Power source					50Hz / Single p	hase 220-240V								
Ventilation mode			LOSSNAY	ventilation			By-pass ve	entilation						
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low					
Current (A)		0.52-0.55	0.47-0.48	0.26-0.27	0.17-0.18	0.53-0.55	0.47-0.48	0.26-0.27	0.17-0.18					
Power consumption (W)		113-129	102-114	56-62	36-42	115-131	103-115	56-63	36-42					
Ainmalanna	(m³/h)	250	250	155	105	250	250	155	105					
Air volume (L/s)		69	69	43	29	69	69 69		29					
External static pressure	(mmH <sub>2</sub> O)	8.2-8.7	5.1-6.1	2-2.5	0.9	8.2-8.7	8.2-8.7 5.1-6.1		0.9					
External static pressure	(Pa)	80-85	50-60	20-25	9	80-85	50-60	20-25	9					
Temperature exchange efficiency (	%)	79.0	79.0	81.5	83.5	_	_	_	_					
Enthalpy exchange efficiency (%)	Heating	69.5	69.5	74.0	77.5	_	_	_	_					
Enthalpy exchange entitlency (76)	Cooling	68.0	68.0	72.5	76.0	_	_	_	_					
Noise (dB) (Measured at 1.5m unde of panel in an anechoei		26-27	25-26	20-21.5	18-19 26.5-27.5 25.5-26.5 20.5-22 18-19									
Weight (kg)					2	20								
Starting current					Under 0.	9 A Less								

<sup>\*</sup>The Air outlets noise (45° angle,1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

# LGH-35RX5-E

2011 001010 2													
Model					LGH-3	5RX₅-E							
Frequency / Power source					50Hz / Single p	hase 220-240V							
Ventilation mode			LOSSNAY	ventilation			By-pass ve	entilation					
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low				
Current (A)		0.92-0.92	0.74-0.74	0.5-0.51	0.28-0.3	0.93-0.94	0.77-0.77	0.51-0.52	0.28-0.3				
Power consumption (W)		195-212	160-169	105-116	58-69	197-217	164-173	105-116	58-69				
Air volume	210	115											
Air volume	(L/s)	97	97 58 32 97		97	97	58	32					
External static pressure	(mmH <sub>2</sub> O)	15.8-16.3	7.6-8.2	2.5-3.1	0.9	15.8-16.3	7.6-8.2	2.5-3.1	0.9				
External static pressure	(Pa)	155-160	75-80	25-30	9	155-160	75-80	25-30	9				
Temperature exchange efficiency	(%)	80.0	80.0	85.0	88.0	_	_	_	_				
Enthalpy exchange efficiency (%)	Heating	71.5	71.5	76.5	81.5	_	_	_	_				
Enthalpy exchange entitlency (%)	Cooling	71.0	71.0	75.5	81.0	_	_	_	_				
Noise (dB) (Measured at 1.5m und of panel in an anechoe		32-32	28.5-29.5	21.5-23	18	32.5-32.5 29.5-30.5 21.5-24 18							
Weight (kg)					2	29							
Starting current					Under 2	.4 A Less							

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)



LGH-15~100RX5-E

#### LGH-50RX₅-E

Model					LGH-5	i0RX₅-E							
Frequency / Power source					50Hz / Single p	hase 220-240V							
Ventilation mode			LOSSNAY	ventilation			By-pass v	entilation					
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low				
Current (A)		1.2-1.25	1.0-1.0	0.85-0.85	0.4-0.4	1.25-1.25	1.0-1.0	0.85-0.85	0.4-0.4				
Power consumption (W)		255-286	207-228	175-190	80-95	260-290	210-230	180-195	80-95				
Aircohoma	(m³/h)	500 500 390 180 500 500 390											
Air volume (L/s)		139	139	108	50	139	139 139		50				
_ (mmF		15.3-15.8	6.6-9.2	4.1-6.1	1.0	15.3-15.8	15.3-15.8 6.6-9.2		1.0				
External static pressure	(Pa)	150-155	65-90	40-60	10	150-155	65-90	40-60	10				
Temperature exchange efficiency (	%)	78.0	78.0	81.0	86.0	_	_	_	_				
Enthalpy exchange efficiency (%)	Heating	69.0	69.0	71.0	78.0	_	_	_	_				
Entitially exchange entitlency (78)	Cooling	66.5	66.5	68.0	77.0	_	_	_	_				
Noise (dB) (Measured at 1.5m under of panel in an anechoeic		33-34	30.5-32	26.5-28	19 34-35 31-32.5 27-29 19								
Weight (kg)					3	32							
Starting current					Under 3	.0 A Less							

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 16 dB greater than the indicated value. (at High Fan speed)

## LGH-65RX5-E

Model					LGH-6	5RX5-E						
Frequency / Power source					50Hz / Single p	hase 220-240V						
Ventilation mode			LOSSNAY	ventilation			By-pass ve	entilation				
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low			
Current (A)		1.7-1.8	1.5-1.5	1.2-1.2	0.6-0.6	1.7-1.8	1.5-1.5	1.2-1.2	0.6-0.6			
Power consumption (W)		350-380	308-322	248-265	120-140	350-385	310-335	250-265	120-140			
Air volume	(m³/h)	650 650 520 265 650 650 520										
Air volume	(L/s)	181	181	144	74	181	181	144	74			
External static pressure	(mmH <sub>2</sub> O)	11.2-12.2	6.1-8.2	4.1-5.1	0.8	11.2-12.2	11.2-12.2 6.1-8.2		0.8			
External static pressure	(Pa)	110-120	60-80	40-50	8	110-120	60-80	40-50	8			
Temperature exchange efficiency (	%)	77.0	77.0	80.0	86.0	_	_	_	_			
Enthalpy exchange efficiency (%)	Heating	68.5	68.5	70.5	78.0	_	_	_	_			
Enthalpy exchange emclency (%)	Cooling	66.0	66.0	68.5	77.0	_	_	_	_			
Noise (dB) (Measured at 1.5m unde of panel in an anechoeid		34-34.5	32-33	2-33 28.5-31.5 22 34.5-35 32.5-33.5 28.5-30.5 22-22.5								
Weight (kg)					4	10						
Starting current					Under 4	.4 A Less						

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

#### LGH-80RX₅-E

Model					LGH-8	0RX₅-E								
Frequency / Power source					50Hz / Single p	hase 220-240V								
Ventilation mode			LOSSNAY	ventilation			By-pass ve	entilation						
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low					
Current (A)		1.75-1.75	1.6-1.6	1.45-1.45	0.60-0.65	1.75-1.75	1.6-1.6	1.45-1.45	0.60-0.65					
Power consumption (W)		380-415	345-370	315-340	125-145	380-415	345-370	315-340	120-145					
Almoratoma	(m³/h)	800	800	700	355	5 800 800 700 355								
Air volume (L/s		222	222 194 99 222 222		222	194	99							
External static pressure	(mmH <sub>2</sub> O)	14.8-15.3	10.7-12.2	8.2-9.7	2	14.8-15.3	10.7-12.2	8.2-9.7	2					
External static pressure	(Pa)	145-150	105-120	80-95	20	145-150	105-120	80-95	20					
Temperature exchange efficiency (	%)	79.0	79.0	80.5	87.5	_	_	_	_					
Enthalpy exchange efficiency (%)	Heating	71.0	71.0	72.5	79.5	_	_	_	_					
Enthalpy exchange efficiency (%)	Cooling	70.0	70.0	71.5	79.5	_	_	_	_					
Noise (dB) (Measured at 1.5m under of panel in an anechoeic		33.5-34.5	32-33	30-31	22	34.5-35.5 33-34 31-32 22								
Weight (kg)						53								
Starting current					Under 3	.8 A Less								

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 16 dB greater than the indicated value. (at High Fan speed)





LGH-15~100RX5-E

LGH-150/200RX5-E

# LGH-100RX5-E

Model		LGH-100RX₅-E												
Frequency / Power source					50Hz / Single p	hase 220-240V								
Ventilation mode			LOSSNAY	ventilation			By-pass ve	entilation						
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low					
Current (A)		2.3-2.4	2.1-2.1	1.7-1.7	0.9-0.9	2.3-2.4	2.1-2.1	1.7-1.7	0.9-0.9					
Power consumption (W)		500-535	445-475	350-380	175-200	510-550	460-485	365-395	175-200					
Air volume	(m³/h)	1000	1000	755	415	1000	1000	755	415					
Air volume	(L/s)	278	278	210	115	278	278	210	115					
External static pressure	(mmH <sub>2</sub> O)	16.3-17.3	10.2-11.2	5.6-6.1	1.8	16.3-17.3	16.3-17.3 10.2-11.2		1.8					
External static pressure	(Pa)	160-170	100-110	55-60	18	160-170	55-60	18						
Temperature exchange efficiency (	%)	80.0	80.0	83.0	87.0	_	_	_	_					
Enthalpy exchange efficiency (%)	Heating	72.5	72.5	74.0	80.0	_	_	_	_					
Enthalpy exchange entitlency (%)	Cooling	71.0	71.0	73.0	79.0	_	_	_	_					
Noise (dB) (Measured at 1.5m under of panel in an anechoei		36-37	34-35	31-32.5	21-22	2 37-38 35-36 32-33 21-22								
Weight (kg)					5	59								
Starting current	Under 4.6 A Less													

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 17 dB greater than the indicated value. (at High Fan speed)

#### LGH-150RX5-E

Model		LGH-150RX <sub>5</sub> -E									
Frequency / Power source				50Hz / Single	phase 220-240V						
Ventilation mode			LOSSNAY ventilation			By-pass ventilation					
Fan speed		Extra High	High	Low	Extra High	High	Low				
Current (A)		3.5-3.5	3.2-3.2	2.9-2.9	3.5-3.5	3.2-3.2	2.9-2.9				
Power consumption (W)		760-830	690-740	630-680	765-835	695-745	635-685				
Air volume	(m³/h)	1500	1500	1300 1500 150		1500	1300				
Air volume	(L/s)	417	417	361	417	417	361				
External static pressure	(mmH <sub>2</sub> O)	16.3-17.8	13.3-13.8	9.7-10.2	16.3-17.8	16.3-17.8 13.3-13.8					
External static pressure	(Pa)	160-175	160-175 130-135 95-100 160-175 130				95-100				
Temperature exchange efficiency	(%)	80.0	80.0	81.0	_	_	_				
Enthalpy exchange efficiency (%)	Heating	72.0	72.0	72.5	_	_	_				
Entitially exchange entitlency (%)	Cooling	70.5	70.5	71.5	_	_	_				
Noise (dB) (Measured at 1.5m under of panel in an anechoe		38-39	36-37.5	33.5-35	39-40.5	37.5-39	35.5-37				
Weight (kg)		105									
Starting current			Under	Under 7.3 A Less							

<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 19 dB greater than the indicated value. (at High Fan speed)

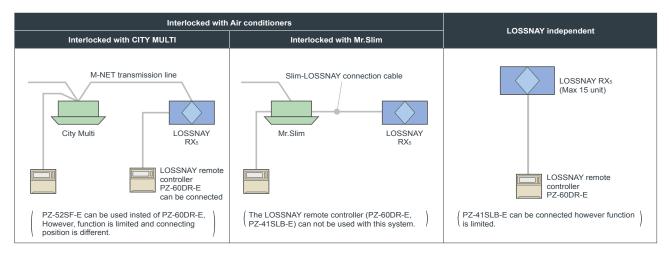
#### LGH-200RX5-E

Model				LGH-2	200RX₅-E						
Frequency / Power source				50Hz / Single	phase 220-240V						
Ventilation mode			LOSSNAY ventilation			By-pass ventilation					
Fan speed		Extra High	High	Low	Extra High	High	Low				
Current (A)		4.8-4.8	4.2-4.2	3.4-3.4	4.8-4.8	4.2-4.2	3.4-3.4				
Power consumption (W)		1035-1100	910-980	715-785	1040-1110	915-980	720-785				
Air volume	(m³/h)	2000	2000	1580	2000	2000	1580				
Air volume	(L/s)	556	556	439	556	556	439				
External static pressure	(mmH <sub>2</sub> O)	16.3-16.8	10.2-10.7	6.1-6.6	16.3-16.8	10.2-10.7	6.1-6.6				
External static pressure	(Pa)	160-165	100-105	60-65	160-165	100-105	60-65				
Temperature exchange efficiency (	[%)	80.0	80.0	83.0	_	_	_				
Enthalpy exchange efficiency (%)	Heating	72.5	72.5	73.5	_	_	_				
Entitially excitating efficiency (78)	Cooling	71.0	71.0	72.0	_	_	_				
	(Measured at 1.5m under the center of panel in an anechoeic chamber)         39.5-40         37-38         32.5-34         40.5-41         38-39         33.5-35										
Weight (kg)					118						
Starting current Under 11.9A Less											

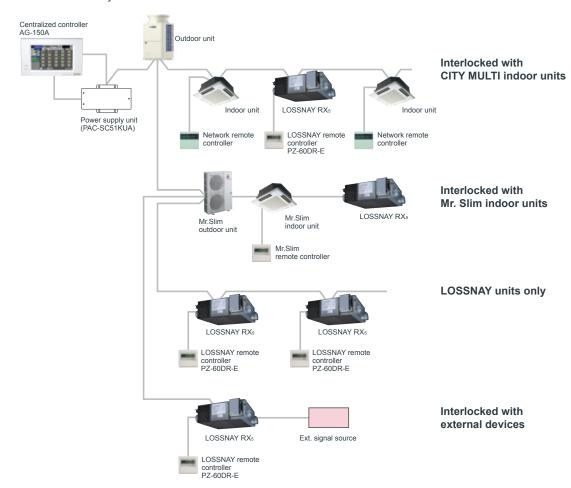
<sup>\*</sup>The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 20 dB greater than the indicated value. (at High Fan speed)

# Control

■The New Remote Controller PZ-60DR-E enable simple control setting



# ■ Centralized Controller System



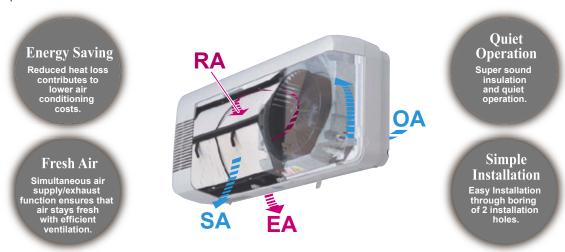


# **VL-100U-E**

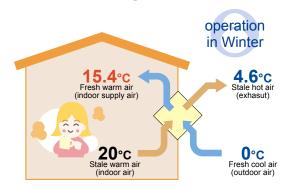


# **Heat Recovery Ventilators for Residential Use**

Time Spent in Comfort with a Breath of Fresh Air



# **Total-Heat-Exchange Concept**



#### ·Heat-exchange calculating equation

 $\begin{array}{l} \mbox{Indoor supply-air temperature (°C)} = \begin{array}{l} \mbox{Outdoor temperature (°C)} + \left\{ \begin{array}{l} \mbox{Indoor temperature (°C)} - \mbox{Outdoor temperature (°C)} \end{array} \right\} x \\ \mbox{efficiency (%)} \end{array}$ Calculation example :  $15.4^{\circ}C = 0^{\circ}C + (20^{\circ}C - 0^{\circ}C) \times 77\%$  (Low notch)

operation in Summer 31.8°C Stale cool air (exhasut) 24.2°C Fresh cool air (indoor supply air) 21°C Stale cool air (indoor air) 35°C Fresh hot air (outdoor air)

## •Heat-exchange calculating equation

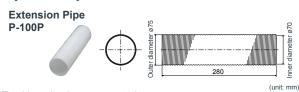
 $\begin{array}{l} \mbox{Indoor supply-air temperature (°C)} = \begin{array}{l} \mbox{Outdoor temperature (°C)} - \left\{ \begin{array}{l} \mbox{Outdoor temperature (°C)} - \mbox{Indoor temperature (°C)} \end{array} \right\} x \\ \mbox{ temperature (°C)} \end{array} x \\ \mbox{ temperature (°C)} \end{array} x \\ \mbox{ temperature (°C)} \\ \mbox{ representation of temperature (°C)} \end{array} x \\ \mbox{ temperature (°C)} \\ \mbox{ temperature (°C)} \\ \mbox{ representation of temperature (°C)} \\ \mbox{ representation of temperature (°C)} \\ \mbox{ temperature (°C)} \\ \mbox{ representation of temperatur$ Calculation example : 24.2°C = 35°C - (35°C - 21°C) x 77% (Low notch)

# **Specification**

- •Simple installation through boring of 2 installation holes.
- •Low-noise(Less than 30dB at low notch).
- •1-motor 2-fan system. •Air-volume:low/high 2-notch.
- ·Air-supply/exhaust pipes and plastic weather cover are supplied as accessories.
- •Equipped with an outdoor-air shutter. •Pull-string switch

	Power line frequency (Hz)	Notch	Air volume (m³/h)	Power Consumption (W)	Temp.exchange efficiency (%)	Noise (dB)	Weight (kg)
220-240	F0	HI	105	26	70	39	
220-240	50	LO	65	23	77	29.5	0.5
000	00	HI	90	26	73	37	6.5
220	60	LO	50	21	80	26	

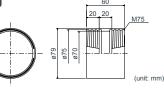
# **Optional parts**



•Total length when connected to the pipe extension coupling is 300mm.

# **Extension Pipe Coupling** P-100PJ M75

Screw-in method



Indoor Unit

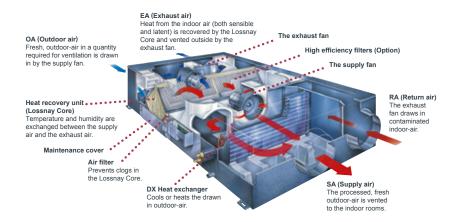


# OA Processing Units



# Ideal Indoor-Air Quality — For Your Comfort and Health

The OA (outdoor-air) Processing Unit creates an optimum indoor-air environment at an unparalleled rate of cost efficiency providing substantial energy savings. Forced air ventilating and humidifying functions unique to this system keep indoor-air fresh and free of contaminants preventing "sick building syndrome" and the spread of airborne viruses such as the flu. Another novel feature of the OA Processing Unit is the "Lossnay core," a heat-exchange unit that functions to transfer heat efficiently, cutting ventilation load by as much as 70%. This special combination of functionality and performance designed to ensure users ample comfort and year-round health which cannot be found anywhere else on the market.



#### GUF-50RD(H)<sub>3</sub> \*1

Cooling Capacity
5.46 (DX coil:3.63, Lossnay:1.83)KW
Heating capacity
6.18 (DX coil:4.17, Lossnay:2.01)KW
500m<sup>3</sup>/h Single phase 220-240V 50Hz

#### GUF-100RD(H)<sub>3</sub> \*1

Cooling Capacity
11.17 (DX coil:7.32, Lossnay3.85)KW
Heating capacity
12.50 (DX coil:8.30, Lossnay:4.20)KW
1000m<sup>3</sup>/h Single phase 220-240V 50Hz
\*1 H: Humidifying Type

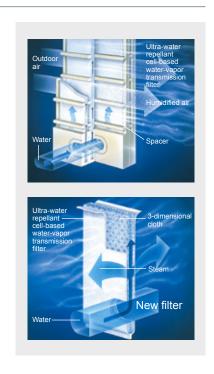
# New Permeable Film Humidifier (RDH3 model)

# Comfortable Level of Humidity for Exceptionable Air Quality

The OA Processing Unit is equipped with a new permeable film humidifier developed and patented by Mitsubishi Electric. Steam transmission efficiency has been improved remarkably by lowering the resistance of the material. The use of a 3-layer film that allows only the transfer of steam prevents the production of white powder, so there is no need for the use of a water purifier.

# **Highly Efficient Humidification**

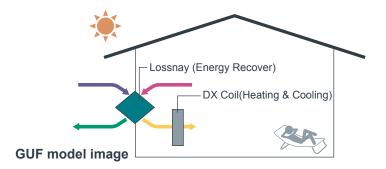
Improvements in the system of airflow patterns and water injection techniques have resulted in a substantial increase in humidifying volume.



# RDH3 SERIES OUTDOOR AIR PROCESSING UNIT GUF type

# General

GUF - For the finest indoor quality
GUF = [ LOSSNAY ] + [ HEATING & COOLING ]



# **Specification**

ecilicat	1011													
Model				GUF-50	DRDH₃ *³	GUF-10	00RDH₃ *³	GUF-	50RD₃	GUF-	100RD₃			
Power source			_			1-phase 2	220-240V 50H	lz, 1-phase 2	220V 60Hz					
Cooling capacity	/	*1	kW	5.46	<1.83>	11.17	<3.85>	5.46	<1.83>	11.17	<3.85>			
Figure in < > is	the recovery	*1	kcal / h	4,700	<1,600>	9,600	<3,300>	4,700	<1,600>	9,600	<3,300>			
capacity by LOS	SSNAY core.	*1	BTU / h	18,600	<6,200>	38,100	<13,100>	18,600	<6,200>	38,100	<13,100>			
. , ,	Power input		W	235	5-265	480	0-505	235	-265	480	-505			
	Current input		А	1.	.15	2	2.20	1.	.15	2.	.20			
Heating capacity	у	*2	kW	6.18	<2.01>	12.50	<4.20>	6.18	<2.01>	12.50	<4.20>			
Figure in < > is	the recovery	*2	kcal / h	5,300	<1,700>	10,800	<3,600>	5,300	<1,700>	10,800	<3,600>			
capacity by LOS	SSNAY core.	*2	BTU / h	21,100	<6,900>	42,700	<14,300>	21,100	<6,900>	42,700	<14,300>			
	Power input		W	235	5-265	480	0-505	235	-265	480-505				
	Current input		A	1.	.15	2	2.20	1.	.15	2.	.20			
Capacity equiva	lent to indoor uni	t		Р	32	F	P63	Р	32	Р	63			
Humidifying cap	acity		kg / h	2	2.7		5.4		-		-			
			lbs / h	6	6.0	1	2.0		-		-			
	Humidifier				Permeable fi	ilm humidifie	er			-				
External finish						Galva	anized, with gr	ey insulation	n sheet					
External dimens	ion H x W x D		mm	317 x 1,0	16 x 1,288	398 x 1,2	231 x 1,580	317 x 1,0	16 x 1,288	398 x 1,2	31 x 1,580			
			in.	12-1/2 x 4	40 x 50-3/4	15-11/16 x 4	48-1/2 x 62-1/4	12-1/2 x 4	10 x 50-3/4	15-11/16 x 48-1/2 x 62-				
Net weight		kg (lbs)	57 (	(126)	98	(217)	54 (	(120)	92 (	(203)				
Heat	LOSSNAY core	е			Partit	ion, Cross-fl	low structure,	Special pres	served paper-	-plate.				
exchanger	Refrigerant coi	il		Cross fin (Aluminum fin and copper tube)										
FAN	Type x Quantit	У		SA: Centrifugal fan (Sirocco fan) x 1										
						EA:	Centrifugal fa	n (Sirocco fa	ın) x 1					
	External		Pa	1	25	1	135	1.	40	140				
	static press.		mmH₂O	1:	2.7	1	3.8	14	4.3	14	4.3			
	Motor type			To	tally enclose	d capacitor	permanent sp	lit-phase ind	uction motor,	4 poles, 2u	nits			
	Motor output		kW		-		-		-		-			
	Driving mecha	nism					Direct-drive	en by motor						
	Airflow rate		m³ / h	5	00	1,	,000	5	00	1,0	000			
	(High value)		L/s	1	39	1	139	1	39	1	39			
			cfm	2	94	5	589	2	94	5	89			
Sound pressure level (Low-High) dB <a> 33.5-34.5</a>							8-39	33.5	-34.5	38	3-39			
(measured in a	nechoic room)		GD 70	00.0	7 04.0		3 00	00.0	04.0		, 00			
Insulation mater								er sheet						
Air filter	Supplying air			Non-woven fabrics filter (Gravitational method 82%) & Optional part: High efficiency filter (Colorimetric method 65%)										
	Exhausting air			Non-woven fabrics filter (Gravitational method 82%)										
Protection devic							Fu							
Refrigerant cont							LE							
Diameter of	Liquid		mm (in.)		1/4) Flare	,	3/8) Flare	,	1/4) Flare	,	3/8) Flare			
refrigerant pipe Gas mm (in.) ø12.7 (ø1/2					1/2) Flare	ø15.88 (	ø5/8) Flare	,	1/2) Flare	ø15.88 (ø	95/8) Flare			
Diameter of drain pipe mm (in.)														

- \*1 Cooling : Indoor 27°CDB/19°CWB, Outdoor 35°CDB/24°CWB
- \*2 Heating : Indoor 20°CDB/13.8°CWB, Outdoor 7°CDB/16°CWB
- \*3 Available for limited countries. Please contact your local distributor for further information.



# Remote Controller

- Individual Remote Controller
- Centralized Remote Controller

# The importance of control

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

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

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

# A degree of difference

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

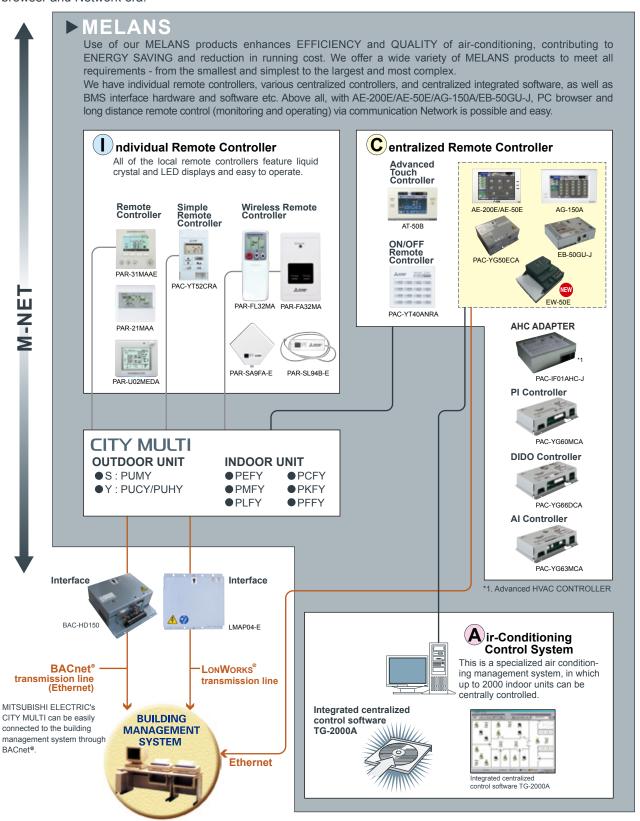
# The simpler, the better

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



# **System Controller**

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



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



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

		Local r	emote con	troller *9								Syste	m co	ntrolle	er					*9
Model	PAR-31MAAE	PAR-21MAA	PAR-U02MEDA	PAC-YT52CRA	PAR-FL32MA	PAC- YT40ANRA	AT-50B		-200E 50F		200E + / EW-50E	EW-	-50E	AG-	150A	AG-1	50A + 650ECA	EB-5	0GU-J	TG-2000A
Controllable Groups / Indoors (Group / Indoor) *8	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	16 / 50	50 / 50	50	/ 50 Browser*	200	/ 200 Browser*4		50 Browser*4		/ 50 Browser*4	150 /	150		/ 50 Browser*4	2000 / 2000
■Operating																				
ON / OFF	0	1 0	1 0 1	0	1 0 1	I @	0	<b></b> ■	(a)			•	<b></b> ■	<b></b> ■	<b>I</b>	□	<b></b> ■	<b>A</b>		<b>O</b>
Mode (cool / heat / dry / fan)	0	0	0	0	0	N	0	© <b>■</b>			-	N	© <b>I</b>	_	© <b>I</b>	© <b>I</b>	© <b>I</b>	N	© <b>I</b>	<u> </u>
Temperature-set	0	0	0	0	0	N	0	0				N	0	© <b>I</b>	0	0	<b>○</b> ■	N	© <b>I</b>	<b>○</b> ■
Dual set point *10	0	N	0	0	N	O*11	0	© <b>I</b>	_			N	© <b>I</b>	N	N	N	N	N	© <b>I</b>	<b>○</b> ■
Local Permit / Prohibit	N	N	N	N	N	N	0	© <b>■</b>	_			N	0		© <b>■</b>	<b>○</b> ■	© <b>I</b>	N	© <b>■</b>	© <b>I</b>
Fan speed	0	0	0	0	0	N	0	0	_	_	_	N	0	0		0	© <b>I</b>	N	© <b>■</b>	© <b>I</b>
Air-flow direction	0	0	0	0	0	N	0		0			N		0				N	© <b>I</b>	© <b>I</b>
■Status monitoring						- 11														• <b>•</b>
ON / OFF	0	1 0	1 0 1	0	1 0 1	I @	I @		10	I @	0		0		10		0	<b>.</b>	0 1	0
Mode (cool / heat / dry / fan)	0	0	0	0	0	N	Ö	0	tŏ	To	0	N	Ö	ő	ŏ	Ö	0	N	ŏ	0
Temperature-set	0	0	0	0	0	N	0	0	10	10	10	N	ō	0	ŏ	0	0	N	ŏ	0
Local Permit / Prohibit	0	0	0	0	0	0	Ö	Tö	Tõ	tŏ	ŏ	N	ŏ	ŏ	ŏ	ŏ	0	N	ŏ	0
Fan speed	0	0	0	0	0	N	0	10	0	10	10	N	0	0	0	0	0	N	0	0
Air-flow direction	0	0	0	0	0	N	0	0	10	10	0	N	0	0	0	0	0	N	0	0
Indoor temperature	0	0	0	0	N	N	0	<del> </del> 0	tŏ	10	0	N	Ö	ŏ	ŏ	0	0	N	ŏ	0
Filter sign	0	0	0	N	N	N	0	0	10	10	0	N	ō	Ö	ŏ	0	0	N	ŏ	0
Error flashing	0	0	0	0	0	0	0	0	10	10	0		0	0	0	0	0	A	0	0
Error code	0	0	0	0	N	0	O	10	10	10	10	N	0	0	0	0	0	N	ŏ	0
Operation hour	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	•
■Scheduling		- 11	- 14	- 14		- 11		1	1	1										
One-day	0	1 0	1 0 1	l N	l n	lΝ	10	<b></b>	(O)		<b>⊚</b> ■	N	<b></b>			•		lΝ		•
Times of ON / OFF per day	1	8	1	N	1	N	16	24	24	24	24	N	24	24	24	24	24	N	24	24
Weekly	0	0	0	N	N	N	0	© <b>■</b>				N	© <b>■</b>	0(0)	0(0)	0(0)	0(•)	N	0(0)	○(●)
Times of ON / OFF per week	8 x 7	8 x 7	8 x 7	N	N	N	16 x 7				24 x 7	N		24 x 7		- ( - /	24 x 7	N	24 x 7	24 x 7
Annual	N	N N	N	N	N	N	N	© <b>■</b>				N	© <b>■</b>	•	•	•	•	N	•	
Optimized start-up	N	N	N	N	N	N	N	0	0	0	0	N	0	0	0	0	0	N	0	0
Auto-off timer	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Min. timer setting unit (minute)	5	1	5	N	10	N	5	1	1	1	1	N	1	1	1	1	1	N	1	1
■Recording	U	<u> </u>	U					<u> </u>	<u> </u>	<u> </u>				<u> </u>	· ·	<u> </u>	· ·			
Error record	0	l N	l N	N	l n	lΝ	10	10	10	10	0	Ν	0	0	10	0	0	l N	01	0
Daily / monthly report	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	<u> </u>
Electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	•
Energy management data	N	N	N	N	N	N	N	N		N	•	N	•	N	N	N	N	N	•	N
■Other		.,,	.,																	- 11
Temp-set limitation by Local R / C	0	0	0	0	N	lΝ	N	N	N	N	N I	Ν	N	N	N	N	N	l N	l N l	N
Temp-set limitation by System controller *4	O *6	0 %	0	O *6	N	N	0.46	N	O*2*6	N	O*2*6	N	O*2*6	N	O*2*6	N	O*2*6	N	O*2*6	<b>⊘</b> *6
Operation-lock	0	0	0	0	N	N	0	N	N	N	N	N	N	N	N	N	N	N	N	N
Night setback	0	N	0	N	N	N	0	0	0'2		O*2	N	O*2	0	0*2	0	O*2	N	O*2	0
Sliding temperature control	N	N	N	N	N	N	N	ŏ	0'2		O*2	N	O*2	ō	0*2	ō	O*2	N	O*2	0
■Management (Group / In						- 11				10										
Ventilation interlock	N/O	N/O	N/O	N/O	N	1 0	0	0	0/0	0	0/0	Ν	0/0	0	0/0	0	0/0	N	0/0 <sup>2</sup>	0/0
Group setting	0 1	0 1	0	0 1	N	0	0	ŏ	0'2		O*2	N	O*2	ŏ	02	ō	O*2	N	O*2	0
Block setting	N	N	N	N	N	N	N	ŏ	0'2	_	O*2	N	0*2	ō	0*2	ō	O*2	N	O*2	0
Revision of electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
■Operating on LOSSNAY						- 11				1										
ON / OFF	N/O	N/O	N/O	N/O	N/O*7	<b>o</b> / <b>o</b> ⁺³	0/0	0/0	രിതി	lo/o	0/0	<b>A/A</b>	<sub>@</sub> /@	l@/@	l@/@	اھ/ھ	  කැක	<b>A/A</b>		@/@
Fan speed	N/O	N/O	N/O	N N	N	N	0/0				0/0									0/0
Ventilation mode	N/N	N/N	N N	N	N	N	@/ N				0/ N									O/ N
■Status monitoring on LOS					.,		07.14	07.14	10,11	10/14	10/11		0/14	0/14	U / 14	J / 14	J. 14		0/14	0.11
ON / OFF	N/O	N/O	N/O	N/O	l n	lΝ	0/0	0/0	l@/@	<b> </b>	0/0	<b>A/A</b>	(a)	(a)	<u> </u> ල/ල	<u> </u> ක/ක	<u> </u>	<b>A/A</b>	@/@	0/0
Fan speed	N/O	N/O	N/O	N N	N	N					0/0									0/0
Ventilation mode	N	N N	N N	N	N	N					0/ N									O/ N
©: Each group / Batched :			Plank (for C								E ENE									

LOSSNAY remote controller PZ-52SF	
■Controllable LOSSNAY Groups	1
■Controllable LOSSNAY unit	16
■Operating	
ON/OFF	0
Mode (automatic ventilation/vent-heat interchange/normal ventilation)	0
Local Permit-Prohibit	N
Fan speed	0
Air flow direction	N
■Scheduling	N
■Recording	N

■Management	0
Group setting	
Block setting	N
■Status monitoring	
ON/OFF	0
Mode	
(automatic ventilation/vent-heat interchange/normal ventilation)	
Local Permit-Prohibit	0
Fan speed	0
Air flow direction	N
Filter sign	0
Error flashing	0
Error code	0

Air conditioner control system interface LMAP04-E:LonWorks® Interface

Controls up to 50 Groups/ 50 units, for details, refer to its description."

BAC-HD150: BACnet® Interface Controls up to 50 Groups/ 50 units, up to 150 Groups/ 150 units with three expansion controllers for details, refer to its description.\*13

O : Each group, N: Not Available Remote Controller



# 

# **Wired MA remote controller PAR-31MAAE**



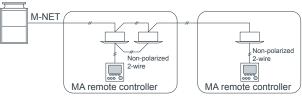


Dual

Point

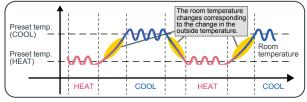
Dimensions: 120(W) x 120(H) x 19(D) mm : 4-3/4(W) x 4-3/4(H) x 3/4(D) in.

#### Example of system configuration



\*When a PAR-31MAAE is connected to a group, no other MA remote controllers can be connected to the same group.

## Operation pattern during Auto (dual set point) mode



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

#### Dual set point

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

\*Please contact your Mitsubishi Electric sales office for details.

#### • Backlit LCD (Liquid Crystal Display)

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

#### Night Setback

To prevent indoor dew or excessive temperature rise, this control starts heating operation when the control object group is stopped and the room temperature drops below the preset lower limit temperature. Also, this control starts cooling operation when the control object group is stopped and the room temperature rises above the preset upper limit temperature.

# Language selection

Language to be displayed on the screen can be selected from eight languages: English, French, German, Spanish, Italian, Portuguese, Swedish, and Russian.

#### **Functions**

runctions			
	○: Each group		
Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	0	0
Operation mode switching	Switches among Cool/Dry/Fan/Auto/Heat.	0	0
Room temp. setting	The temperature can be set within the following range.  Col/I/Dry: 19°C - 30°C / 67°F - 87°F  Heat : 17°C - 28°C / 63°F - 83°F  Auto : 19°C - 28°C / 67°F - 83°F  * Set temperature range varies depending on the model.	0	0
Air flow direction setting	Changes airflow direction.  * Available airflow directions vary depending on the model.	0	0
Louver setting	Switches between louver ON/OFF.	0	0
Ventilation equipment control	Interlocked setting and interlocked operation setting with the CITY MULTI LOSSNAY units can be made. The Stop/Low/High settings of the ventilation equipment can be controlled.	0	0
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.	-	0
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.	0	0
Allows/disallows local operation	The following operation can be prohibited by making 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 the "Full" mode).	×	0
Operation lock	The following operation can be prohibited respectively: ON/OFF, operation mode setting, temperature setting, and airflow direction setting.	0	0
Temperature range restriction	The room temperature range for each operation mode can be restricted.	0	0
Auto return	The units operate at the preset temperature after a designated period. (Time can be set to a value from 30 to 120 in 10-minute increments.) * Not valid when the temperature setting range is restricted.	0	х

#### **Wired MA remote controller PAR-21MAA**



Dimensions:  $130(W) \times 120(H) \times 19(D) \text{ mm}$ :  $5-1/8(W) \times 4-23/32(H) \times 3/4(D) \text{ in.}$ 

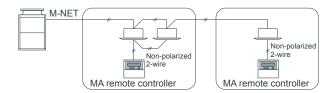
- New display-Larger, easier-to-see characters
- Dot Liquid Crystal Display (LCD)
- Multi-language Display

- Set temperature in 1°C/°F increment
- Weekly timer

Up to 8 ON/OFF/temperature setting per day in 1 minute increment. Setting kept in nonvolatile memory. No need to worry about re-setting at power failure.

- Room temperature control with thermostat sensor inside the unit
- Self-diagnosis function immediately informs error code in case of malfunction

#### Example of system configuration



#### Multi-language Display Example [Dot display table]

Language		English	German	Spanish	Russian	Italian	Chinese	French	Japanese
Waiting for start-u	р	PLEASE WAIT	<b>←</b>	<b>←</b>	<b>←</b>	<b>←</b>	<b>←</b>	<b>←</b>	<b>←</b>
Operation mode	Cool	©COOL	<b>©</b> Kühlen	<b>Ø</b> FRÍO	<b>©</b> Холоа	©:COOL	♥制冷	<b>©</b> FROID	♥冷房
	Dry	◇ DRY	⊙Trocknen	ODESHUMI- ODIFICACION	ОСушка	○ DRY	○除湿	<b>⊘DESHU</b>	△ドライ
	Heat	ÄHEAT	⇔Heizen	⊅(ALOR	<b>⇔</b> Тепло	⊅HEAT	净制热	☆(HAUD)	☆暖房
	Auto	###AUTO	₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	↑→AUTO- ←∳MÁTICO	₽₽₽	₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	料自动	₽₽₽₽₽₽₽	⇔自動
	Auto(Cool)	##COOL	‡‡Kühlen	₽₽₽	₽₽Холоа	₽₽₽	は制冷	₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	は冷房
	Auto(Heat)	‡:‡HEAT	‡-‡Heizen	‡‡(ALOR	₽₽Тепло	₽₽₽	##制热	‡‡(HAUD	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
	Fan	<b>\$\$</b> FAN	<b>\$\$</b> Lüfter	VENTI-	<b>\$\$</b> Вент	<b>CO</b> VENTI LAZIONE	<b>\$</b>	VENTI LATION	<b>\$</b>
	Ventilation	382UENTI	₩Gebläse Wetrieb	382 LACIÓN	₩ Венти-	SE ESTERNA	<b>※投</b> 气	382 VENTI	<b>黎科</b>
	Stand by (Hot adjust)	STANO BY	STANO BY	CALENTANDO	ОБОГРЕВ: ПАУЗА	STAND BY	准备中	PRE CHAUFFAGE	準備中
	Defrost	DEFROST	Aktaven	DESCONGE - LACIÓN	Оттаивание	SBRINA MENTO	除霜中	DEGIVRAGE	霜取中
Not use button		NOT AVAILABLE	Nicht Verfusbar	NO DISPONIBLE	НЕ Доступно	NON DISPONIBILE	无效按钮	NON DISPONIBLE	無効ポタン
Check (Error)		Снеск	Prüfen	COMPROBAR	ПРОВЕРКА	CHECK	检查	CONTROLE	点検
Test run		TEST RUN	Testbetrieb	TEST FUNCIO NAMIENTO	ТЕСТОВЫЙ ЗАПУЕК	TEST RUN	试运转	TEST	試ウソテソ
Self check		SELF CHECK	Selbst – diagnose	AUTO REVISIÓN	Самодиаг- НОСТИКА	SELF CHECK	自我诊断	AUTO CONTROLE	自己シングツ
Unit function selection		FUNCTION SELECTION	FUNKTION SAUSWANI	SELECCIÓN DE FUNCIÓN	Вывор ФУНКЦИИ	SELEZIONE FUNZIONI	功能选择	SELECTION FONCTIONS	キノウ選択
Setting of ventilati	on	SETTING OF VENTILATION	Lüfterstufen Wahlen	CONFIG. VENTILACIÓN	Настройка Вентустан.	impos tazione aria esterna	换气设定	SELECTION VENTILATION	换领款定

#### **Functions**

	☐: Each unit ☐: Each group	X : Not ava	ilable
Item	Description	Operations	Display
ON/OFF	ON and OFF operation for a single group	0	0
Operation mode switching	Switches between Cool / Dry / Auto* / Fan / Heat. Operation modes vary depending on the air conditioner unit.  * Auto only supported for the CITY MULTI R2 and WR2 series.	0	0
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry: 19°C - 30°C (14°C - 30°C) / 67°F - 87°F (57°F - 87°F) Heat : 17°C - 28°C (17°C - 28°C) / 63°F - 83°F (63°F - 83°F) Auto : 19°C - 28°C (17°C - 28°C) / 67°F - 83°F (63°F - 83°F) () For PEFY/PFFY by setting DipSW 7-1 to ON and limits to NI6H fan speed only.	0	0
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.	0	0
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.	0	0
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (ON/OFF, Change operation mode, Set temperature, Reset filter). *1: When the local remote controller inactivation command is received from the main system controller, " is displayed.	×	0*1
Prohibition/permission of specified mode (Cooling prohibited/heating prohibited /cooling-heating prohibited)	By the setting from System Controller, the operation for the following modes is prohibited. At cooling prohibited: Cool I, Dry, Auto, At heating prohibited: Heat, Auto, At cooling-heating prohibited: Cool, Heat, Dry, Auto	х	0
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	Х	
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one LOSSNAY. LOSSNAY items that can be set are "Hi" "Low" "Stop". Ventilation mode switching is not available.	0	0
Set temperature range limit	Set temperature range limit to cooling, heating, or auto mode.	0	0
Auto lock function	Setting/releasing of simplified locking for remote control switch can be performed.  Locking of all switches  Locking of all switches except ON/OFF switch	0	0

#### **Smart ME Controller PAR-U02MEDA**



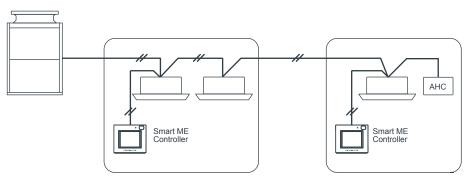


- Smart ME Controller is a remote controller designed to control Mitsubishi Electric's air conditioning units and also allows for the control of other manufacturer's products connected via Mitsubishi Electric's AHC (Advanced HVAC CONTROLLER).
- It can control up to sixteen indoor units and one AHC.
- Smart ME Controller features such basic functions as operations and monitoring of air conditioning units and schedule-control functions and is equipped with four built-in sensors (temperature, humidity, occupancy, brightness), which enable an integrated control of the system, including the humidifiers and ventilation units connected to the system via AHC, to help create a comfortable environment.

When the built-in occupancy sensor detects vacancy in a specific zone, the controller uses its internal function to reduce energy-consumption.

- Dimensions :  $5-17/32(W) \times 4-3/4(H) \times 1(D)$  in.
  - : 140(W) x 120(H) x 25(D) mm

#### Example of system configuration



#### **Functions**

	○:Each gro	oup X:No	t available
Item	Description	Operations	Display
ON/OFF	Switches between ON and OFF.	0	0
Fan speed setting	Changes fan speed.  * Available fan speeds vary depending on the model.	0	0
Air flow direction setting	Changes airflow direction.  * Available airflow directions vary depending on the model.	0	0
Allows/disallows local operation	The following operation can be prohibited by making 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.	×	0
Error information	When an error occurs, an error code and the unit address appear. Contact number can be set to appear when an error occurs. (The information above needs to be entered on the Service menu.)	_	0
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.	0	0
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.	0	0
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 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.	0	0



Remote Controller

## Individual Remote Controller

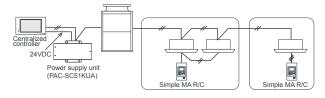
#### Simple remote controller PAC-YT52CRA (MA)





Dimensions: 70(W) x 120(H) x 14.5(D) mm : 2-3/4(W) x 4-23/32(H) x 9/16(D) in.

#### Example of system configuration



#### Dual set point

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

\*Please contact your Mitsubishi Electric sales office for details.

#### Backlit LCD

Backlight for operation in dark place

#### Flat back

Install without hole on wall Slim and flat type Thickness is less than 14.5mm [0.6(in)]

#### Vane button (standard)

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

Pressing the wull switch the vane directions.



- \*The settable vane direction varies depending on the indoor unit model to be connected.
- \* If the unit has no vane function, the vane direction cannot be set. In this case, the vane icon blinks when the  $\lceil v_{u} \rceil$  button is pressed.
- The only wiring required is cross-over wiring based on two-wire signal lines.
- Room temperature sensors are built-in.
- · Can operate all types of indoor units

\*Since this controller has limited functions, it should always be used in conjunction with standard controller or centralized controller.

LCD temperature setting and display in 1°C /1°F increments.

#### **Functions**

	☐: Each unit ○: Each group	X : Not ava	ilable
Item	Description	Operations	Display
ON/OFF	Changes between ON and OFF.	0	0
Operation mode switching	Select from COOL, DRYING, FAN, AUTO, and HEAT.  * AUTO mode is settable only when those functions are available on the indoor unit.	0	0
Temperature setting	The temperature can be set within the following range.  Cool/Drying: 19°C - 35°C/67°F - 95°F  Heat: 5°C - 28°C/41°F - 83°F  Auto (single set point): 19°C - 28°C/67°F - 83°F  Auto (dual set points)  [Cool] Same as the set temp. range for Cool mode.  [Heat] Same as the set temp. range for Heat mode.  * Set temperature range varies depending on the model.	0	0
Fan speed setting	Changes the fan speed.  * The settable fan speed varies depending on the indoor unit model to be connected.	0	0
Permit / Prohibit local operation	By setting a centralized controller, the following local operations are prohibited: ON/OFF; operation mode; preset temperature;  The CENTRAL icon appears while the local operations are prohibited.	х	0
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 microcomputer-type LOSSNAY unit is possible.	0	0
Set temperature range limit	The preset temperature range can be restricted for each operation mode (COOL/HEAT/AUTO).	0	0

#### Wireless remote controller PAR-FL32MA / PAR-FA32MA / PAR-SA9FA



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-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.



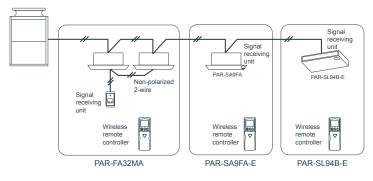


PAR-SL94B-E (Wireless remote controller kit for ceiling suspended)

Dimensions: 182(W) x 57(H) x 31(D) mm

- No need to configure addresses for group operation.
- Lit LED keeps you informed of operation blinking even gives you the error code via the number of blinks.
- Can be used with the MA remote controller.
  - \*When used in group configurations, wiring between indoor units is required.
  - \*Combining ME remote controller and/or LOSSNAY remote controller in a group is not possible.
- LCD temperature setting and display in 1°C /1°F increments.

#### Example of system configuration



#### Correspondence table

	receiver	transmitter
PMFY-P VBM		
PLFY-P VCM/VLMD		
PFFY-P VKM		
PEFY-P VMR-E-L/R/VMH	PAR-FA32MA	
PFFY-P VLEM/VKM/VLRM/VLRMM	PAR-FASZIVIA	
PEFY-P VMS1(L)		PAR-FI 32MA
PEFY-VMA(L)		I / II C LOZIVII C
PCFY-P VKM	PAR-FA32MA	
1 GI I I VIUVI	PAR-SL94B-E	
PLFY-P VBM-E	PAR-SA9FA-E	
PKFY-P VBM-E	Built-in	
PKFY-P VHM/VKM	Built-IN	

#### **Functions**

	○: Each group	x: Not ava	ilable
Item	Description	Operations	Display
ON/OFF	ON and OFF operation for a single group	0	0
Temperature setting	Sets the temperature for a single group Range of temperature setting Cool/Dry: 19°C - 30°C (14°C - 30°C) / 67°F - 87°F (57°F - 87°F) Heat : 17°C - 28°C (17°C - 28°C) / 63°F - 83°F (63°F - 83°F) Auto : 19°C - 28°C (17°C - 28°C) / 67°F - 83°F (63°F - 83°F) () For PEFY/PFFY by setting DipSW 7-1 to ON and limits to NI6H fan speed only. * Set to PAR-FL32MA according to its Installation Manual 4 "Model setting".	0	0
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 for one day.	0	0
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 ring and an LED will flash.	х	0*1
Ventilation equipment	Up to 16 indoor units can be connected to an interlocked system that has one LOSSNAY.	Х	X

<sup>\*</sup>Some models will have different display for the air flowdirection and fan speed. Set the air flow direction and fan speed when performing initial setting.



Remote Controller

## Centralized Remote Controller

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

#### **ON/OFF remote controller PAC-YT40ANRA**





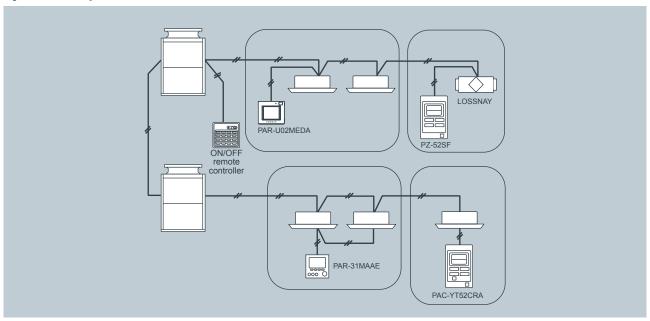
- The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
- No individual AC power supply is needed.
   The power can be supplied from one outdoor unit (R410A) or Power supply unit.

#### NOTE

Dual set point function is available depending on the version of the controller. For the availability of the function, please contact your local distributor.

Dimensions: 130(W) x 120(H) x 19(D) mm : 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

#### System example



FUNCTION	DESCRIPTION	PAC-YT	40ANRA
UNITS	Max No.Units	50 units/	16 groups
		OPERATIONS	DISPLAY
ON/OFF	Switches between ON and OFF	/	/
EDDOD INDICATION	LED flashes during failure.		
ERROR INDICATION	(The error code can be confirmed by removing the cover.)	_	
VENTILATION OPERATION	Group operation of only LOSSNAY units possible.		
(INDEPENDENT)	*Only ON/OFF of group.	/	
VENTU ATION OPERATION	The LOSSNAY will run in interlock with the operation of indoor unit.		
VENTILATION OPERATION	*The fan rate and mode cannot be changed.	/	/
(INTERLOCKED)	The LED will turn ON only during operation after interlocking.		
EXTERNAL INPUT	On/Off/Fire Alarm	/	_
EXTERNAL OUTPUT	On/Off/Faults	_	/

## Centralized Remote Controller

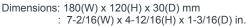
With our new Advanced Touch Controller AT-50B, easy and simple operation on the touch panel offers an optimal air environment for individual unit.

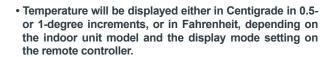
Dual

Point

#### **Advanced Touch controller AT-50B**





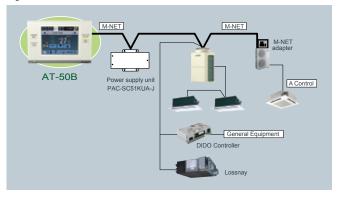


#### Dual set point

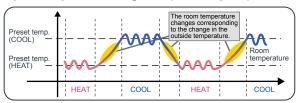
When the operation mode is set to the Auto (dual set point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the Cool or Heat mode and keep the room temperature within the preset range.

\*Please contact your Mitsubishi Electric sales office for details.

#### System structure



#### Operation pattern during Auto (dual set point) mode



#### Design

#### **Backlit LCD (Liquid Crystal Display) Touch Panel**

5-inch color LCD touch panel enables easy and simple operation.

The backlight lights up when the panel is touched, and lights off after certain period of time.

The touch panel displays the operation status of the units in GRID, LIST or in GROUP.











#### **Functions**

#### Three in One

The following three features are integrated into AT-50B.

- Control up to 50 indoor units from one location
- A weekly programmable timer, being able to control up to 50 indoor units
- Control up to 50 units/50 groups of air conditioners

#### Weekly and daily schedule

5 patterns of one day and 12 patterns of weekly schedule (16 settings max. per pattern).

Two types of weekly schedule can be set.

#### System changeover

Operation mode can be switched depending on indoor temperature setting and target temperature of each group or a representative indoor unit.

## Functions [Basic Functions]

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

#### Night setback function

This function allows having a two-temperature setting to keep the desired room temperature when the units are not in operation and during the time this function is effective. The unit automatically starts heating (cooling) operation when the temperature drops below (rises above) the preset lower (upper) limit temperature. This is not only for comfort environment, but also for saving energy.

### Main system controller/Sub system controller

AT-50B can be set to Sub System controller. When connecting multiple system controllers, designate the system controller with many functions as the "Main", and set the system controllers with few functions as the "Sub".

#### Simple button arrangement

The F1 (Function 1) and the F2 (Function 2) button can be set as a run button of the following collective operation. (Setback/Schedule/Operation Mode/Temperature Correction/Remote Controller Prohibition)

#### **Advanced Functions**

	☐: Each unit ☐: Each group ☐: Group or collective	X: Not ava	ilable
Item	Description	Operations	Display
Permit / Prohibit	The ON/OFF, operation mode, setting temperature, fan speed, air direction, filter sign reset operations, and timer using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the LOSSNAY group.  *The settable items vary depending on the models.	0	0
Operation lock	The operation lock can be set to the input operation of AT-50B.  Each button can be set. (Function Button 1, Function Button 2, Collective ON/OFF, Touch Panel)  Each function can be set. (Operation mode, Setting temperature, Fan speed, Menu button)  The password for the lock release can be set.	0	0
Error display	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.  * When an error occurs, the "ON/OFF" LED flashes. The operation monitor screen show abnormal icon over the unit. The error monitor screen shows the abnormal unit address and error code. The error log monitor screen shows the time and date, the abnormal unit address, error code and source of detection.	x	
Ventilation (independent)	Switches the mode "Bypass/Heat recovery/Auto" for LOSSNAY groups.	0	0
Ventilation (interlocked)	The LOSSNAY will run in interlock with the operation of indoor unit. The mode cannot be changed. The LED will turn ON during operation after interlocking.	0	0
Temperature-set limitation	Batch-setting to temperature range limit at cooling, heating, and auto mode.  This function cannot be used with the MA remote controller. (Depends on the indoor unit model.)	0	0
Specific mode operation prohibit (Cooling prohibit, heating prohibit, cooling/ heating prohibit)	When set as the main controller, operation of the following modes with the local remote controllers can be prohibited. When cooling is prohibited: Cooling, dry, automatic can not be chosen. When heating is prohibited: Heating, automatic can not be chosen. When cooling/heating is prohibited: Cooling, dry, heating, automatic can not be chosen.	0	0
External input (Emergency stop input, etc.)	The following input with level signals or pulse signals are available.  Level signal: "Emergency stop input" or "Collective ON/OFF"  Pulse signal: "Collective ON/OFF" or "Local remote controller prohibit/permit"  One input can be selected from those above.  * An external input/output adapter (PAC-YT51HAA-J (sold separately)) is required.  Relays and DC power supply or other devices must be prepared at the site.	0	0
External output (Error output, operation output)	"ON/OFF" and "error/normal" are output with the level signal. * An external input/output adapter (PAC-YT51HAA-J (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	0	0
Checking the Gas Amount	Use this function to check for refrigerant leak from the outdoor unit.  * When this function is used, the gas amount checking function of the outdoor unit cannot be used.  This function is for CITY MULTI R2 and Y (PUMY is excluded.) series only.		
Schedule operation	Weekly schedule setting up to 12 pattern is available. In one pattern, up to 16 setting of "ON/OFF", "Operation mode", "Set Temperature", "Fan speed", "Air flow direction" and "Permit / Prohibit local operation" can be scheduled.  Two types of weekly schedule(Summer/Winter) can be set. Today's schedule setting up to 5 pattern in available.	0	0

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



## Centralized Remote Controller

#### Centralized controller AE-200E/AE-50E



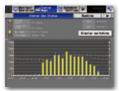


Dimensions:  $284(W) \times 200(H) \times 65(D) \text{ mm}$ :  $11-5/32(W) \times 7-27/32(H) \times 2-9/16(D) \text{ in.}$ 



Java™ is a registered trademark of Oracle® and/or its affiliates.

#### **Control Screen for Power Consumption**

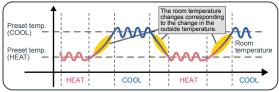


Energy consumption of applicable area is displayed by the month, day, and hour. Energy consumption of two different units, groups and blocks can be compared. Fan operation time as well as energy consumption can be displayed.



Energy consumptions of air-conditioning equipment are ranked and displayed by individual air-conditioning equipment and by area, thus visualizing high-load components. Also, comparison of energy consumption with target electric energy is possible.

#### Operation pattern during Auto (dual set point) mode



### Comparison in the number of connectable units

- By comprehensibly showing the energy consumption of air-conditioning equipment, it provides assistance in energy saving.
- Energy consumption of air-conditioning equipment by individual area is displayed using graphs for easier viewing.
- Enables comparisons with the previous year's power consumption as well as with the target electric power, thus allowing users to check the operating state at a glance.
- Floor layout is displayed on the 10.4-inch LCD touch panel, facilitating easier operation of air-conditioning equipment.
- In an easy and flexible manner, an optimum system can be established according to the scale of facilities.
- Implements control on up to 50 indoor units of airconditioning equipment.
- By using three units of expansion controller "AE-50E/EW-50E", the centralized control is implemented for the maximum of 200 indoor units.
- Connection with PC allows implementation of control on more than 200 indoor units via Web browser.\*1
  - \*1. Please contact your local distributor for when the feature is supported.
- Features for operating and monitoring the hot water heat pump are also available on CAHV, PWFY, and CRHV.\*2
- Centralized batch control on CAHV, PWFY, and CRHV <sup>2</sup> is possible in addition to that on air-conditioning unit.
  - \*2. Please contact your local distributor for when these features are supported on CRHV.

#### Dual set point

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

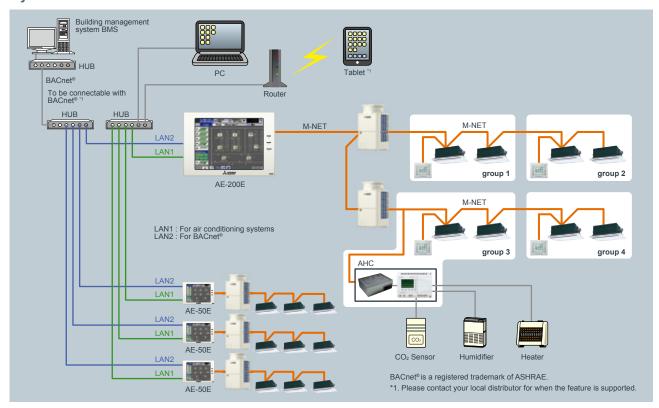
\*Please contact your Mitsubishi Electric sales office for details.





Remote Controller

#### **System Structure**



#### With a license

Personal web: Personal web browser

Simple Maintenance Tool: Allow to connect Maintenance tool Energy Management license pack: Charge + Energy saving + Peak cut, Energy Monitor Interlock control: Interlock control by AE-200E

#### **Functions**

Item	Description	Operations	Display
Controllable number of unit	Up to 50 units/50 groups	,	
ON/OFF	ON and OFF operation for the air conditioning units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	004	00
Operation mode	Switches between several operation modes depending on the air conditioning unit. Air conditioning unit: Cool/Dry/Auto(*)/Fan/Heat LOSSNAY unit: Heat Recovery/Bypass/Auto CAHV, CRHV, Air To Water (PWFY) units: Heating, Heating ECO, Hot Water, Anti-freeze, Cooling(**) *Auto mode is for CITY MULTI R2 and WR2 series only. ** Only PWFY	○◎△●	0
Temperature setting	Cool/Dry: 19°C (67°F) -35°C (95°F) [14°C (57°F) -30°C (87°F)] Heat: 4.5°C (40°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] Auto: 19°C (67°F) -28°C (83°F) [17°C (63°F) -28°C (83°F)] The range of temperature depends on the air conditioning unit. [] in case of using middle-temperature on PDFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	○◎△●	0
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.	004	0
Air flow direction setting	Air flow direction angles, 4-angles or 5-angles Swing, Auto (Louver cannot be set)	00△●	0
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	$\bigcirc\bigcirc\bigcirc\triangle\bigcirc$	0
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.	004	0
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	0
Error	When an error is currently occurring on an air conditioning unit, the afflicated unit and the error code are displayed.	×	
Test run	This operates air conditioning units in test run mode.	0040	0
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	00△●	0
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"	0	0
Energy Management	Bar Graph: Indoor unit Electric Energy, FAN operation time, Thermo-ON time (TOTAL, Cooling, Heating) can be displayed hourly, daily and monthly.  Line Graph: Outdoor temp., Room temp., Set temp. (Heating, Cooling) input from PAC-YG63MCA and temp. from AHC.	×	□○●
Advanced HVAC Controller (AHC)	The status of AHC can only be monitored.	×	0
New Smart ME contoroller	The status of sensor on this controller can be monitored.	×	0
Smartphone/Tablet	The specified Web browser on iOS and Android OS can monitor and operate AE-200E. *1	0	0
New Web design	The web screen design is renewed for user friendly interface. *1	$\bigcirc\bigcirc\bigcirc\triangle\bigcirc$	0
Initial setting software	The initial setting can be configured without the connection of AE-200E. *1	×	×
Apportionment of power consumption	Apportionment of power consumption can be calculated on AE-200 without TG-2000A. *2		
BACnet® communication	ANSI/ASHRAE 135-2010 (ISO16484-5) is supported and approved by the BTL. *1		×

<sup>\*1.</sup> Please contact your local distributor for when the feature is supported.] \*2. One more AE-50E unit is necessary.

## Centralized Remote Controller

With a new colored touch panel, and continuation of all the G-50A functions, AG-150A visualizes its functions from basic control to advanced operations and bringing an ultimate controller to reality.

#### **Centralized controller AG-150A**

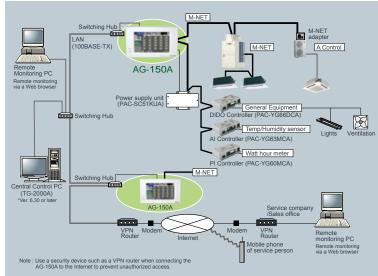


Dimensions:  $300(W) \times 185(H) \times 70.3(D) \text{ mm}$ :  $11-13/16(W) \times 7-5/16(H) \times 2-13/16(D) \text{ in.}$ 



Option : Black surface cover PAC-YG71CBL

#### **System structure**



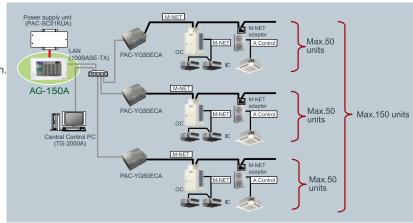
#### Expansion Controller PAC-YG50ECA



Dimensions: 250(W) x 217(H) x 97.2(D) mm : 9-7/8(W) x 8-9/16(H) x 3-7/8(D) in.

With a connection of a Expansion Controller, maximum of 150 units/groups can be connected to AG-150A.

#### System structure



<sup>\*</sup>Do not connect PAC-YG50ECA to TB3 of the outdoor unit.

<sup>\*</sup>Use a security device such as a VPN router when connecting the AG-150A etc. to the Internet to prevent unauthorized access.

#### Design

#### Backlight color liquid crystal

Backlight makes it easy to see and control units. One can identify whether a unit is ON or OFF from a distance.

Control in the night with no lights is possible.

#### Touch panel

#### 9 inch wide, high-resolution

Touch panel enables operation of units by touching with index finger.

When object unit is touched, orange box appears around the unit icon indicating the unit selected.

#### Flat back

#### Easy installation

Allows for an installation of the unit either directly to the wall surface\* or using the installation hole in the wall.

\*Optional parts are required.

#### **USB** memory compatible

Measurement/initial setting CSV data extractable with USB memory.

Can save and overwrite setting data.

#### **Functions**

#### Controllable units/groups

Controls up to 50 units/groups (including indoor units, LOSSNAY, DIDO/AI/PI controller)

Up to 150 units can be controlled via expansion controller; PAC-YG50ECA (AG-150A software needs to be upgraded to Ver. 2.10 or later.)

#### **Monitoring functions**

Temperature/Humidity (using AI controller)

General equipment such as lights on LCD (using DIDO

Interlock function from AI controller, DIDO controller to indoor units and between DIDO units are available.

AG-150A interlock with DIDO controller or free contact on an indoor unit available. \* Ver. 2.30 or later

#### **Energy saving functions**

Seasonal scheduling and automatic switch over \*1 Yearly scheduling on LCD \*1

Scheduling fan speed and airflow direction

Optimized Start up

External temperature interlock control

Night setback control

\*1 License required.



Weekly schedule screen

#### With a license

Personal web: Personal web browser

Simple Maintenance Tool: Allow to connect Maintenance tool

AG-150A Energy Management license pack: Charge + Energy saving + Peak

cut + Energy monitor

Annual schedule, Weekly schedule: Annual schedule, Weekly schedule (2

types), Today schedule

Interlock control: Interlock control by AG-150A

#### **Functions**

	☐ : Each unit ☐ : Each group ● : Each block ☐ : Each floor ☐ : Collective	X : Not ava	ailable
Item	Description	Operations	Display
Controllable unit	50 units/groups or 150 units/groups via expansion controller; PAC-YG50ECA.		
ON/OFF	ON and OFF operation for the air conditioner units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	0000	00
Mode selection	Switches between Cool / Dry / Auto / Fan / Heat. (Group of LOSSNAY unit: automatic ventilation/ vent - heat interchange/ normal ventilation) depending on the air conditioner unit. Auto mode is for CITY MULTI R2 and WR2 series only.	004	0
Temperature setting	Cool/Dry: 19°C-30°C (14°C-30°C) / 67°F-87°F(57°F-87°F)  Heat : 17°C-28°C (17°C-28°C) / 63°F-83°F(63°F-83°F)  Auto : 19°C-28°C (17°C-28°C) / 63°F-83°F(63°F-83°F)  ( ) in case of using middle-temperature on PEFY-VML/VMR/VMS/VMH by setting  DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	004	0
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.	004	0
Air flow direction setting	Air flow direction angles, 4-angle or 5-angle Swing, Auto (Louver cannot be set)	$\bigcirc \bigcirc \triangle \bigcirc$	0
Schedule operation	Annaul/Weekly (5 types)/today schedule can be set for each group of air conditioning units. Optimized startup setting is also available.	0000	0
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter).	004	0
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	X	0
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	X	
Test run	This operates air conditioner units in test run mode.	$\bigcirc \bigcirc \triangle \bigcirc$	0
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	$\bigcirc \bigcirc \triangle \bigcirc$	0
External input/output	By using optional external input/output adaptor (PAC-YG10HA) you can set and monitor the following. Input: By level signal: "Batch start/stop", "Batch emergency stop" By pulse signal: "Batch start/stop", "Enable/disable local remote controller" Output: "Start/stop", "Error/Normal"	0	0

<sup>\*</sup>NOTE: Operation and displayed content vary depending on the indoor unit model. •Future release schedule is subject to change without notice.



### **Centralized Remote Controller**



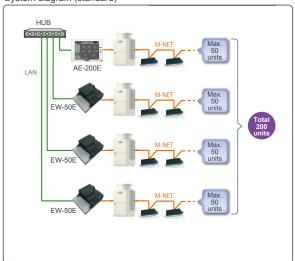
#### **Centralized controller EW-50E**



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

#### **System Structure**

System diagram (standard)

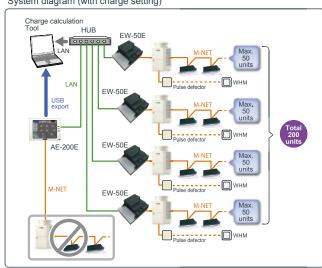


#### \* When M-NET of AE-200E is not used, a maximum of four EW-50E units can be connected.

#### **Main Features**

- Available as the expansion controller for AE-200E Connecting three EW-50E units to an AE-200E makes it possible to operate and monitor a maximum of 200 indoor units.
- Apportioned electricity charge function The amount of power consumed by the air conditioners is calculated with the use of AE-200E. The calculated data can be output to the PC via USB memory or LAN, and the charge report can be created with the use of the designated charge calculation
- \*The apportioned electricity charge function on AE-200E and TG-2000A cannot be used together.
- \*To use the apportioned electricity charge function on AE-200E, check that the version of TG-2000A is 6.60 or later, even if the apportioned electricity charge function on TG-2000A is not used.
- \*For other restrictions, refer to the Installation Manual and Instruction Book.

#### System diagram (with charge setting)



#### • Enabled to operate and monitor air conditioners independently by using a PC

Even without an AE-200E, EW-50E is possible to monitor and operate air conditioners using a browser software\*1. Via the Internet, air conditioners can be monitored and operated from a remote location. In addition, air conditioners in multiple buildings can be operated collectively.\*2

\* 1. The operation of this product has been confirmed on Internet Explorer 8, IE9, IE10, and IE11, and on Oracle® Java Ver8.

Microsoft® Internet Explorer is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.

Oracle® and Java® are trademarks or registered trademarks of Oracle Corporation, its subsidiaries, and related companies in the United States or other countries.

Company names and product names in this brochure may be trademarks or registered trademarks of the respective rights holder.

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

that can ensure security.

To monitor the indoor units connected to EW-50E, use TG-2000A of Ver. 6.60 or later.





· Manage air conditioner usage conditions It is possible to use a web browser to display the energy consumption of air conditioners in an easy-to-understand manner.







#### · Operable without the transmission line power supply unit

Because the EW-50E unit is equipped with a power supply function, power supply from a transmission line power supply unit is not necessary.

Since power supply from an outdoor unit is also not necessary, self-sustained operation is possible even when the outdoor unit system goes down. (If the power consumption factor exceeds 1.5, a power supply unit is required.)

#### Energy-saving control

By adding an energy-saving control license (optional product), the set temperature can be changed automatically 1 based on the room temperature surrounding each air conditioner. Therefore, energy-saving control is possible without affecting comfort greatly.

\* 1. This function changes the set temperature in units of +2°C for cooling and -2°C for heating by the specified time interval. If the difference between the suction temperature and the set temperature is significant, it is possible to exclude it from the energy-saving subject.

#### **Functions**

\* The functions and specifications are subject to change.

⑤: By group or multiple groups ○: By group □: Batch only

Item	Remarks	Setting	Display
ON/OFF	Switches to ON or OFF air conditioners and general equipment.	0	0
Operation mode switching	Switches to cool, dry, auto, fan, or heat operation. * Depending on the unit, some modes are not available.	0	0
Room temperature setting	The temperature can be set in the following range. The values inside the parenthesis are for indoor units for medium temperature.  * Depending on the model, the setting temperature range differs.  * Cooling/dry: 19°C to 35°C (4.5°C to 30°C)    * Heating: 17°C to 28°C (17°C to 28°C)    * Auto: 19°C to 28°C (17°C to 28°C)	0	0
Set temperature 0.5°C increments	The temperature can be set and displayed in 0.5°C increments.  * With some unit combinations, the temperature is set in 1°C increments.	0	0
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.	0	
Air direction setting	Fixed swing in five levels or auto air direction can be set. * Available air directions differ depending on the unit.	0	0
Prohibition of local remote controller operation	It is possible to disable the ability to use to local remote controller to run or stop, the operation mode, set temperature, filter sign reset, wind speed, wind direction and timer operation.  * In the Lossnay group, only ON/OFF and filter reset can be disabled.  * Disabling of the fan speed, air direction, and timer operation can be set for the PAC-SF50AT, PAR-36MA, PAR-F30ME, and PAC-YT52CR models.	0	0
Room temperature display	Displays the suction temperature of the indoor unit.	_	
Error display	Displays the current error content together with the address.	_	0
Schedule operation	Today/weekly/weekly by season/yearly Setting content: ON/OFF, operation mode, set temperature, disable local remote controller, air direction/fan	0	0
Energy management	Displays the power consumption* or operating hours. * Requires an optional part.	_	0
Ventilator operation (solo)	Group operation can be possible for free plan Lossnay units only.  * The above group operation mode includes auto ventilation, heat exchange, and normal ventilation.	0	0
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.	0	0
External input (timer connection, emergency stop input, etc.)	Using a level signal or pulse signal, it is possible to input the following.  Level signal: Emergency Stop Input, Batch ON/OFF, and Demand Input.  Pulse signal: Batch ON/OFF or Operation Disable/Enable  *Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA).  Of the above inputs, only one input can be selected.		_
External output (error output, operation output)	Using the level signal, ON/OFF and Error/Normal are output. *Requires an external power supply and separately sold external I/O adapter (PAC-YG10HA).	_	
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	0.1	0.1
Filter reset	Filter sign reset		0
Connectable location	Centralized system transmission line: Connectable Recommended Indoor and outdoor transmission line: Connectable	_	_

- \* The functions and specifications differ depending on the connected equipment and model.
   \* Electric energy can be proportionally divided using the EW-50E alone.
   But the apportioned electricity charge function requires an AE-200E or TG-2000A.

■Connectable equipment: Free plan direct expansion system air conditioner Inverter air conditioner for facility

Package air conditioner for facility (the AW control model can be connected using an M control compatible indoor unit) A Control Mr. Slim (Can be connected using an M-NET adapter or special outdoor unit)

Kirigamine room air conditioner (Requires a system control interface or M-NET control interface) Free plan Lossnay/Lossnay with heating and humidification

Independent humidification unit \*

Environmental measuring controller, metering measurement controller, general interface

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



#### Centralized controller EB-50GU-J



EB-50GU-J (without display)

• Dimensions:9-7/8 (W) x 8-9/16 (H) x 3-7/8 (D) in. :250 (W) x 217 (H) x 97.2 (D) mm



Java™ is a registered trademark of Oracle® and/or its affiliates

The Web Server Function enables Remote Operation or Scheduling Via a Web Browser on a Personal Computer!
Up to 50 indoor units can be controlled!

#### Web Browser

Enables monitoring and operation of indoor units using a PC with Microsoft<sup>®</sup> Internet Explorer (Ver.8 or Ver.9)

\*When connecting to the Internet, please use the VPN (Virtual Private Network).

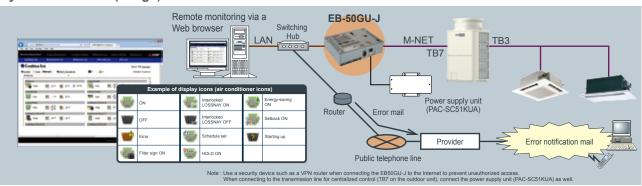
#### **Using "Dial-up Connection"**

- Enables monitoring and operation from a remote place
- Enables error notification by e-mails to a PC or to a mobile phone

	☐:Each unit ☐:Each group ●:Each block ☐:Each floor ⑥:Collecti	ve X:Not	available
Function	Description	Operations	Display
ON / OFF	ON and OFF operation for the air conditioner units	$\bigcirc \bullet \circledcirc$	00
Mode selection	Switches between COOL/DRY/FAN/AUTO/HEAT	$\bigcirc \bullet \circledcirc$	0
Temperature setting	The temperature can be set within the following range.  Cool/Drying: 67°F - 95°F/19°C - 35°C  Heat: 40°F - 83°F/4.5°C - 28°C  Auto (single set point): 67°F - 83°F/19°C - 28°C  Auto (dual set points)  [Cool] Same as the set temp. range for Cool mode. [Heat] Same as the set temp. range for Heat mode.	○●◎	0
A: 0 1: 1:	*The settable temperature ranges and items vary depending on the indoor and outdoor unit models.		
Air flow direction setting	Air flow direction angles, 4-angle or 5-angle Swing, Auto (Louver cannot be set)	$\bigcirc \bullet \circledcirc$	0_
Timer operation / Schedule	Annual/Weekly (5 types)/today schedule can be set for each group of air conditioning units. Optimized startup setting is also available.	000	0
Permit / Prohibit function	Individually prohibit operation of each local remote control function	000	0
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	X	Ō
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	X	
Test run	This operates air conditioner units in test run mode.	0⊚∆●	0
Ventilation interlock	Operation of indoor groups or general equipment can be interlocked by the change of state (ON/OFF, mode, error of indoor groups and general equipment).	0	0
AHC status	Displays the status of input and output ports of each Advanced HVAC CONTROLLER (AHC).	×	
Energy Use Status	On the Energy Use Status screen, the energy-control-related status, such as electric energy consumption, operation time, and outdoor temperature, can be displayed in a graph.  Operators can check the detailed status of given indoor units by specifying the date to display the data per group, block, or unit address.	×	

\*NOTE: Operation and displayed content vary depending on the indoor unit model.

#### System Structure (image)



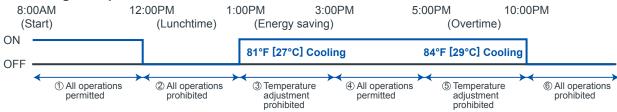
#### **Annual / Weekly Schedule**

#### Enables Weekly and Annual scheduling with a registering license

- The operations that can be scheduled for air conditioning unit group: ON/OFF/Optimized Start, Mode, Set Temp, Air Direction, Fan Speed, and Prohibit Remote Controller operation
- For annual schedule, it is possible to set 50 day-long settings up to 24 months into the future.



#### Scheduling example in the office







## Centralized \_\_\_ Remote Controller

#### AHC ADAPTER PAC-IF01AHC-J



Dimensions: 4-9/16(W) x 3-1/2(H) x 1-9/16(D) in. : 116(W) x 90(H) x 40(D) mm Advanced HVAC CONTROLLER (hereafter referred to as AHC) comprises of MITSUBISHI ELECTRIC's AHC ADAPTER (PAC-IF01AHC-J) and  $\alpha$ 2 SIMPLE APPLICATION CONTROLLER\* (hereafter referred to as ALPHA2).

\*a2 SIMPLE APPLICATION CONTROLLER is one of the Programming Logic Controllers that are manufactured by MITSUBISHI ELECTRIC CORPORATION.

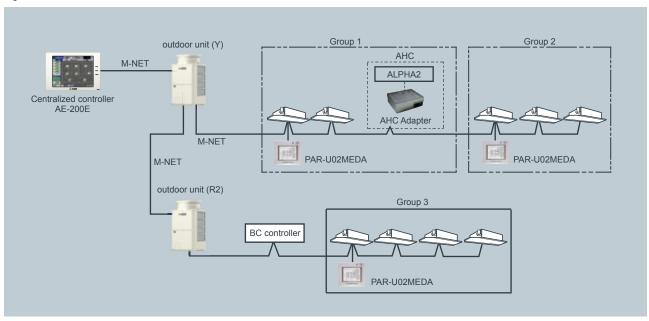
AHC allows for the connection of MITSUBISHI ELECTRIC's air conditioning network system (hereafter referred to as M-NET) to other systems, which was not possible with the use of ALPHA2 alone. AHC provides the following functions.

- ① Controls external devices using the sensor data of the air conditioning units connected to M-NET.
- 2 Interlocks the operation of air conditioning units and external devices that are connected to ALPHA2.
- 3 Controls air conditioning units that are connected to M-NET.
- 4 Allows for the combined use of the items 1-3 above.
- (5) Monitors the input/output status of ALPHA2 via a remote controller or a centralized controller.

#### **Compatible controllers**

- Remote Controller: PAR-U02MEDA
- Centralized Controller: EB-50GU-J, AE-200E, AE-50E, EW-50E
- \* Refer to the manual that came with ALPHA2 for information about ALPHA2.
- \* The use of AHC ADAPTER requires either a remote controller or a centralized controller.

#### **System Structure**



## Centralized \_ Remote Controller

#### 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.

No more PLCs are needed!

Our new PI controller makes it possible to perform energy saving without PLC, which is cost saving.

Maximum of 4 measurement meter (WHM, gas meter, water meter, calorie meter) can be connected to the PI controller and can be used also for charge calculation.

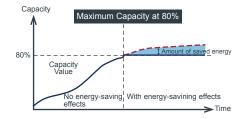
\*24 VDC power needs to be provided on site.

#### **Energy Saving Control (Peak Cut)**

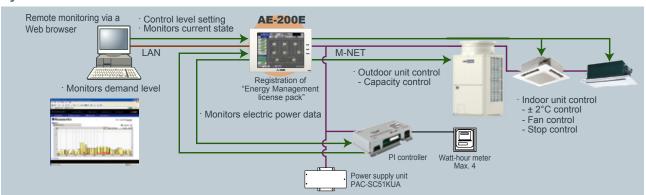
Enables Energy Saving Control with the use of our new PI controller. (Registration of "Energy Management license pack" is required.)

To perform energy saving, the capacity of the outdoor unit is controlled.

\*Please note that when using an energy saving control, there are no warranties to failures such as usage over the contracted electricity.



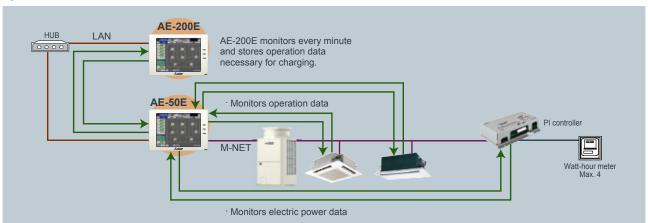
#### **System Structure**



#### Charge Calculation

Enables charge calculation for each tenant and output as CSV file

#### **System Structure**





Remote Controller

#### 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.

#### No more PLCs are needed!

Our new DIDO controller makes it possible to control general-purpose equipment without PLC, which is cost saving. Up to 6 general-purpose equipment can be connected to the DIDO controller.

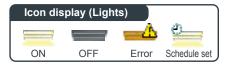
\*24 VDC power needs to be provided on site.

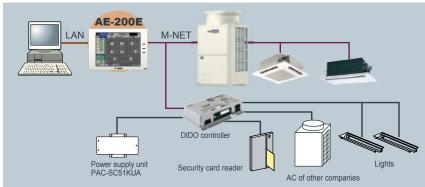
#### General-purpose equipment Control

Enables to control and monitor equipment other than air-conditioners (air-conditioners of other companies, lights, ventilators, etc.)

System Structure

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





#### Al Controller PAC-YG63MCA



 $\begin{array}{l} \mbox{Dimension: 200(W) x 120(H) x 45(D) mm} \\ \mbox{: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.} \end{array}$ 

Our new AI controller makes it possible to monitor the values measured by the temperature/humidity sensor connected to the AI controller.

The Al controller has two input and two output channels.

\*24 VDC power needs to be provided on site.

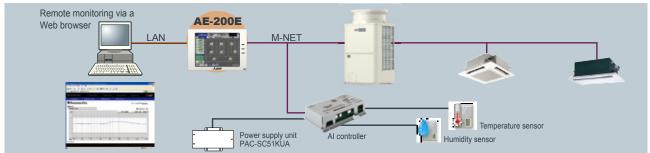
#### **Temperature/Humidity Monitoring**

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

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

- Trend displays of measurement data can be shown on a Web browser.
- · An alarm can be output by e-mail when measurement data exceeds a preset upper or lower limit.

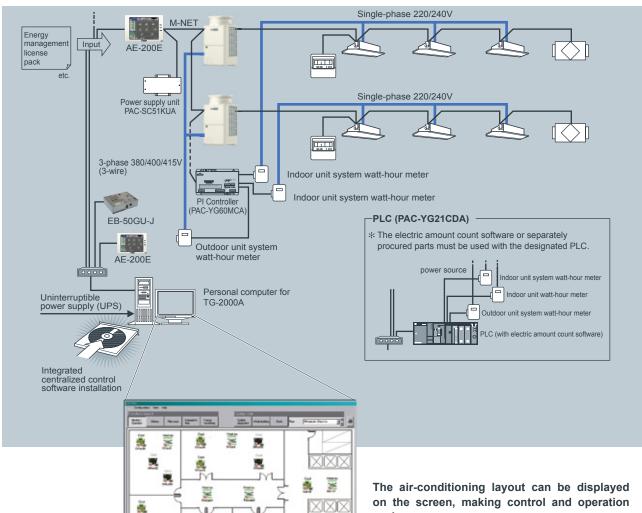
#### **System Structure**



#### Integrated centralized control software TG-2000A

#### **Example of Basic System Configuration**





easier.

#### Effective use of TG-2000A

Multiple air conditioning charges in multiple buildings can be calculated. The power apportionment percentage data and apportioned power rate can be calculated for each unit, and can be output as a CSV file.

BE- BE- BE



For example, installing TG-2000A to the system in the headquarters makes it possible to control AE-200E, AE-50E, EW-50E, AG-150A, or EB-50GU-J units that are used in branch offices. (Version 6.60 or later)

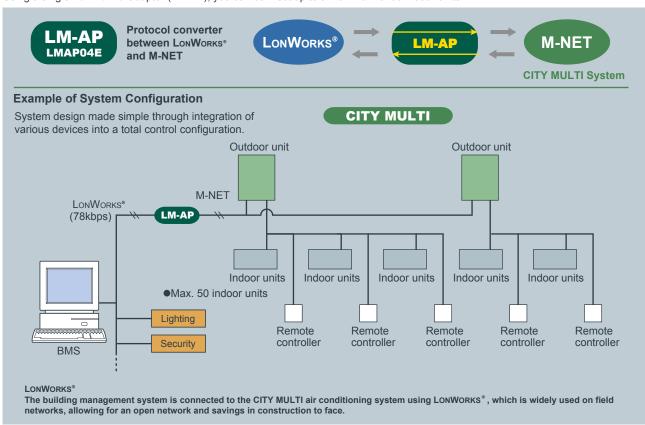
#### LonWorks® (LMAP04E)

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



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

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



### Lon, LonWorks® and the Echelon logo are trademarks of Echelon Corporation registered in the United States and other countries.

LonWorks® INTERFACE			
FUNCTION	CONTENT		
Control			
ON/OFF	Switches between ON and OFF		
Mode Operation	Cooling/Drying/Heating/Auto/Fan		
Setpoint Adjustment	Cooling 19-35°C, Heating 4.5-28°C, Auto 19-28°C		
Fan Speed Control	Lo-Mi1-Mi2-Hi		
Permit/Prohibit	ON/OFF, Mode, Setpoint		
Emergency Stop	-		
Monitoring			
ON/OFF	Switches between ON and OFF		
Mode	Cooling/Drying/Heating/Auto/Fan		
Setpoint	Cooling 19-35°C, Heating 4.5-28°C, Auto 19-28°C		
Fan Speed	Lo-Mi1-Mi2-Hi		
Permit/Prohibit	ON/OFF, Mode, Setpoint		
Alarm State			
Room Temperature	-10°C~50°C		
Thermo ON/OFF	ON/OFF		

#### BACnet® (BAC-HD150)

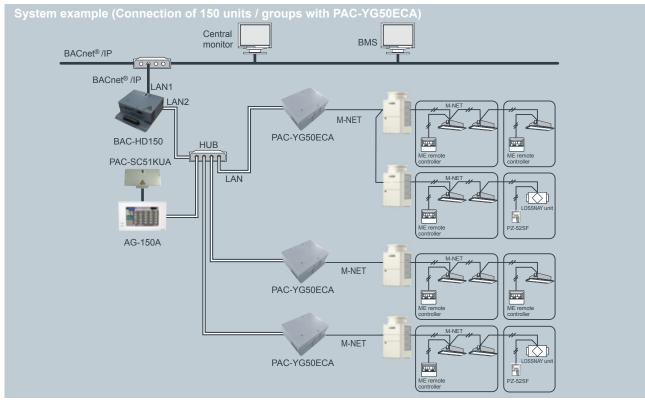
CITY MULTI can easily combine into a Building Management System (BMS) via the BACnet® and M-NET adapter BAC-HD150. BACnet® is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS via BACnet®.



BAC-HD150 can control up to 50 units/groups (including LOSSNAY).

Up to 150 units/groups (including LOSSNAY) can be controlled from one BAC-HD150 with three expansion controllers PAC-YG50ECA. (50 units/PAC-YG50ECA)

When the dual-set-point function is used, no expansion controllers can be connected, and only up to 50 units/groups can be controlled from each BAC-HD150.



BACnet® and M-NET adapter			
FUNCTION	CONTENT		
Operation			
ON/OFF	Switches between ON and OFF		
Mode	Cool/Dry/Heat/Auto/Fan		
Fan Speed	Low-Mid1-Mid2-Hi		
Airflow Direction	Horizontal- 60°-80°-100°swing		
Set Temperature	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]		
Filter Sign Reset	Normal/Reset		
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.		
Forced OFF	Release/Effective		
Monitoring			
ON/OFF	Switches between ON and OFF		
Mode	Cool/Dry/Heat/Fan		
Fan Speed	Low-Mid1-Mid2-Hi		
Air Direction	Horizontal- 60°-80°-100°swing		
Set Temperature	Cooling 19-35°C [67-95°F], Heating 4.5-28°C [40-83°F], Auto 19-28°C [67-83°F]		
Filter Sign	Normal/Reset		
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.		
Indoor Temperature	-		
Alarm Signal	Normal/Abnormal		
Error Code	2 Character code- Indicates all unit alarms		
Communication State	Normal/Abnormal		



Remote Controller



# O ptional Parts

#### **OPTIONAL PARTS FOR INDOOR UNITS**

#### >>4-way cassette type (PLFY-VBM/VCM)

Description Model		ty	Remarks
Wodei	VBM	VCM	Remarks
SLP-2AAW / SLP-2ALW	-	P20, P25, P32, P40	SLP-2ALW is for PLFY-P-VCM-E2 or later model only For more detailed information, please contact your nearest sales office or distributor.
PLP-6BA	P32, P40, P50, P63, P80, P100, P125	-	
PLP-6BAJ	P32, P40, P50, P63, P80, P100, P125	-	
PAC-SH53TM-E	P32, P40, P50, P63, P80, P100, P125	-	
PAC-SH59KF-E	P32, P40, P50, P63, P80, P100, P125	-	
PAR-SA9FA-E	P32, P40, P50, P63, P80, P100, P125	-	
PAC-SH48AS-E	P32, P40, P50, P63, P80, P100, P125	-	
PAC-SA1ME-E	P32, P40, P50, P63, P80, P100, P125	_	
PAC-SH65OF-E	P32, P40, P50, P63, P80, P100, P125	_	
PAC-SH51SP-E	P32, P40, P50, P63, P80, P100, P125	_	
	PLP-6BA PLP-6BAJ PAC-SH53TM-E PAC-SH59KF-E PAR-SA9FA-E PAC-SH48AS-E PAC-SA1ME-E PAC-SH650F-E	VBM   SLP-2AAW / SLP-2ALW   -   PLP-6BA   P32, P40, P50, P63, P80, P100, P125   PLP-6BAJ   P32, P40, P50, P63, P80, P100, P125   PAC-SH59KF-E   P32, P40, P50, P63, P80, P100, P125   PAR-SA9FA-E   P32, P40, P50, P63, P80, P100, P125   PAC-SH48AS-E   P32, P40, P50, P63, P80, P100, P125   PAC-SA1ME-E   P32, P40, P50, P63, P80, P100, P125   PAC-SH650F-E   P32, P40, P50, P63, P80, P100, P125   P32, P40, P50, P63, P80, P4	SLP-2AAW / SLP-2ALW  -  PLP-6BA  P32, P40, P50, P63, P80, P100, P125  PAC-SH5STM-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH5STM-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH5STM-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH59KF-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH48AS-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH48AS-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH48E-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH650F-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH650F-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH650F-E  P32, P40, P50, P63, P80, P100, P125  PAC-SH650F-E

#### >>2-way cassette type (PLFY-VLMD)

CMP-40VLW-C	P20, P25, P32, P40
CMP-63VLW-C	P50, P63
CMP-100VLW-C	P80, P100
CMP-125VLW-C	P125
PAC-KH110F	P20, P25, P32, P40, P50, P63, P80, P100
	CMP-63VLW-C CMP-100VLW-C CMP-125VLW-C

#### >>1-way cassette type(PMFY-VBM)

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

#### >>Ceiling concealed type (PEFY-VMH(S))

Description	Model	Applicable capacity	Remarks
Drain pump	PAC-KE04DM-F	P40~P250VMH	
Drain pump	PAC-KE05DM-F	P200, P250VMHS	
	PAC-KE86LAF	P40, P50, P63	
Long life filter	PAC-KE88LAF	P71, P80	
Long life lifter	PAC-KE89LAF	P100, P125, P140	
	PAC-KE85LAF	P200, P250	
Filter box	PAC-KE63TB-F	P40, P50, P63	
	PAC-KE80TB-F	P71, P80	
	PAC-KE140TB-F	P100, P125, P140	Necessary when long life filter is used
	PAC-KE250TB-F	P200, P250	

#### >>Ceiling concealed type (PEFY-VMA(L))

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

#### >>Fresh air intake type (PEFY-VMH-E-F)

Description	Model	Applicable capacity
Long life filter	PAC-KE88LAF	P80
	PAC-KE89LAF	P140
	PAC-KE85LAF	P200, P250
Filter box	PAC-KE80TB-F	P80
	PAC-KE140TB-F	P140
	PAC-KE250TB-F	P200/P250
Drain pump	PAC-KE04DM-F	P80, P140, P200, P250

#### >>Ceiling suspended type (PCFY-VKM)

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

#### >>Ceiling concealed type (PEFY-VMS1(L))

Description	Model	Applicable capacity
Drain pump	PAC-KE07DM-E	P15, 20, 25, 32, 40, 50, 63 *For PEFY-VMS1L only
Control box replace kit	PAC-KE70HS-E	P15, 20, 25, 32, 40, 50, 63

#### >>Wall mounted type (PKFY-VBM/VHM/VKM)

Description	Model	Applicable capacity
External LEV Box	PAC-SG95LE-E	P15, 20, 25, 32, 40, 50, 63
Drain pump kit	PAC-SH75DM-E	P32, 40, 50
	PAC-SH94DM-E	P63,100

### **OPTIONAL PARTS FOR OUTDOOR UNITS**

#### >>For PUCY series

Description	Model	Remarks
	CMY-Y100VBK3	For PUCY-P550~P650 / EP400~EP650YSKA
Twinning kit	CMY-Y200VBK2	For PUCY-P700~P1000 / EP700YSKA
	CMY-Y300VBK3	For PUCY-P1050~P1350 / EP750~EP1100YSKA
	CMY-Y102SS-G2	200 or below (Total capacity of indoor unit)
	CMY-Y102LS-G2	201-400 (Total capacity of indoor unit)
D 1 : (1:0	CMY-Y202S-G2	401-650 (Total capacity of indoor unit)
Branch pipe (Joint)		The 1st branch of P450~P650
	CMY-Y302S-G2	651 or above (Total capacity of indoor unit)
		The 1st branch of P700~P1250
	CMY-Y104-G	For 4 branches
Branch pipe (Header)	CMY-Y108-G	For 8 branches
	CMY-Y1010-G	For 10 branches

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

#### >>For PUMY series

Description	Model
Branch Pipe (2 Branch)	CMY-Y62-G-E
Header	CMY-Y64-G-E
Header	CMY-Y68-G-E
Drain Socket	PAC-SG61DS-E
Centralized Drain Pan	PAC-SH97DP-E
Port Connector (ø9.52 → ø12.7)	PAC-SG73RJ-E
Port Connector (ø15.88 → ø19.05)	PAC-SG75RJ-E
Air Protect Guide (2 pcs required)	PAC-SH95AG-E
Air Outlet Guide	PAC-SH96SG-E
Base Heater	PAC-SJ20BH-E

#### >>For PUHY series

Description	Model	Remarks		
	CMY-Y100VBK3	For PUHY-P550~P650YSKA / EP400~EP650YSKA		
Twinning kit	CMY-Y200VBK2	For PUHY-P700~P900YSKA / EP700YSKA		
	CMY-Y200VBK3	For PUHY-P950~P1000YSKA		
	CMY-Y300VBK3	For PUHY-P1050~P1500YSKA / EP750~1100YSKA		
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)		
	GW11-12025-G2	The 1st branch of P450~P650		
	CMY-Y302S-G2	651 or above (Total capacity of indoor unit)		
	CWY-Y3025-G2	The 1st branch of P700~P1250		
Branch pipe (Header)	CMY-Y104-G	For 4 branches		
	CMY-Y108-G	For 8 branches		
	CMY-Y1010-G	For 10 branches		
Control box guard	PAC-KK45HY	For PUHY-P-Y(S)HA		

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

#### ■ Snow Hood

Prevention the Outdoor unit from wind and snow damages in cold or snowy areas, snow hood is recommended and helpful.

\*Do not use a snow hood made of stainless steel, which may cause the unit to rust. If the use of a stainless snow hood is the only option, contact the sales office before installing it.

Refer to the data book for details.

### **OPTIONAL PARTS FOR CONTROL**

Model	Description	
PAC-SE41TS-E	Remote Sensor for A/J/K/M-Net Control	
PAC-SE55RA-E	Remote ON/OFF adaptor for Indoor Unit	
PAC-SA88HA-EP	Remote Display Adaptor for Indoor Unit	
PAC-SA89TA-EP	Timer Adaptor for remote controller	
PAC-SC37SA-E	Output signal connector	
PAC-SC36NA-E	Input signal connector	
PAC-SF46EPA	Transmission booster	
LMAP04-E	Air conditioner interface	
PAC-YG11CDA	Electric amount count software	
BAC-HD150	BAC net® and M-NET adapter	
PAC-YT51HAA-J		
PAC-YG10HA		

Model	Description	
PAC-YG50ECA	Expansion controller for AG-150A	
PAC-SC51KUA	Power supply unit for AG-150A	
PAC-YG81TB	Mounting attachment B type for AG-150A wall-mount installations	
PAC-YG82TB	Mounting attachment for AE-200E wall-mount installations	
PAC-YG83UTB	Electric box for AG-150A wall-embed installations	
PAC-YG84UTB	Electric box for AE-200E wall-embed installations	
PAC-YG85KTB	Mounting attachment A type for AG-150A/PAC-SC51KUA wall-mount installations	
PAC-YG86TK	Mounting attachment for AE-200E wall-mount installations	
PAC-YG71CBL	Black surface cover for AG-150A	
PAC-YG72CWL	Surface cover with USB port for AE-200E	

#### **Installation Information**

#### 1. General precautions

#### 1-1. Usage

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

#### 1-2. Installation environment

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

#### 1-3. Backup system

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

#### 1-4. Unit characteristics

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

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

#### 1-5. Relevant equipment

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

#### 1-6. Unit installation

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

#### 1-7. Optional accessories

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

#### 1-8. Operation/Maintenance

- ♦Read the Instruction Book that is provided with each unit carefully prior to use.
- ♦ Maintenance or cleaning of each unit may be risky and require expertise. Read the Instruction Book to ensure safety.

Consult your local distributor or a qualified technician when special expertise is required such as when the indoor unit needs to be cleaned.

#### 2. Precautions for Indoor unit

#### 2-1. Operating environment

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

#### 2-2. Unit characteristics

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

#### 2-3. Unit installation

- ◆Do not have any branching points on the downstream of the refrigerant pipe header.
- ♦When a field-supplied external thermistor is installed or when a device for the demand control is used, abnormal stop of the unit or damage of the electromagnetic contactor may occur. Consult your local distributor for details.
- ♦When indoor units operate a fresh air intake, install a filter in the duct (field-supplied) to remove the dust from the air.
- ♦The 4-way or 2-way Airflow Ceiling Cassette Type units that have an outside air inlet can be connected to the duct, but need a booster fan to be installed at site. Refer to the chapter "Indoor Unit" for the available range for fresh air intake volume.
- ♦Operating fresh air intake on the indoor unit may increase the sound pressure level.

#### 3. Precautions for Fresh air intake type indoor unit

#### 3-1. Usage

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

#### 3-2. Unit characteristics

- ♦This unit cannot perform the drying operation. The unit will continue the fan operation and blow fresh air (air that is not air-conditioned) when the Heating Thermo-OFF or Cooling Thermo-OFF mode is selected.
- ◆This unit switches the Thermo ON or OFF depending on the room temperature. The outside air is directly supplied into the room during Thermo OFF. Take caution of the cold supply air due to low outside air temperature and of condensation in the room due to high humidity of the outside air.
- ♦Outside air temperature ranges for the operation must be as follows:

Cooling: 21°CD.B./15.5°CW.B. ~ 43°CD.B./35°CW.B.

Heating: -10°CD.B.~ 20°CD.B

The unit is forced to operate Thermo OFF (fan operation) when the outside air temperature is as follows.

Cooling: 21°CD.B or below; Heating: 20°CD.B or above

- ◆Either a remote controller (sold separately) or a remote sensor (sold separately) must be installed to monitor the room temperature.
- If only this unit is used as an indoor unit, condensation may form at the supply air grill while the unit is operated in the cooling mode. This unit cannot operate dehumidifying.
- ♦Use the unit in the way that the airflow rate will not exceed the 110% of the rated airflow.

#### 4. Precautions for Outdoor unit/Heat source unit

#### 4-1. Installation environment

- ♦Outdoor unit with salt-resistant specification is recommended to use in a place where it is subject to salt air.
- ◆Even when the unit with salt-resistant specification is used, it is not completely protected against corrosion. Be sure to follow the directions or precautions described in Instructions Book and Installation Manual for installation and maintenance. The salt-resistant specification is referred to the guidelines published by JRAIA (JRA9002).
- ♦Install the unit in a place where the flow of discharge air is not obstructed. If not, the short-cycling of discharge air may occur.
- Provide proper drainage around the unit base, because the condensation may collect and drip from the outdoor units.

Provide water-proof protection to the floor when installing the units on the rooftop.

- In a region where snowfall is expected, install the unit so that the outlet faces away from the direction of the wind, and install a snow guard to protect the unit from snow. Install the unit on a base approximately 50 cm higher than the expected snowfall. Close the openings for pipes and wiring, because the ingress of water and small animals may cause equipment damage. If SUS snow guard is used, refer to the Installation Manual that comes with the snow guard and take caution for the installation to avoid the risk of corrosion.
- ♦When the unit is expected to operate continuously for a long period of time at outside air temperatures of below 0°C, take appropriate measures, such as the use of a unit base heater, to prevent icing on the unit base. (Not applicable to the PUMY series)
- ♦Install the snow guard so that the outlet/inlet faces away from the direction of the wind.
- ♦When the snow accumulates approximately 50 cm or more on the snow guard, remove the snow from the guard. Install a roof that is strong enough to withstand snow loads in a place where snow accumulates.
- ◆Provide proper protection around the outdoor units in places such as schools to avoid the risk of injury.
- ◆A cooling tower and heat source water circuit should be a closed circuit that water is not exposed to the atmosphere.

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

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

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

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

#### 4-2. Circulating water

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

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

#### 4-3. Unit characteristics

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

#### 4-4. Relevant equipment

◆Provide grounding in accordance with the local regulations.

#### 5. Precautions for Control-related items

#### 5-1. Product specification

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

#### 5-2. Installation environment

- ♦The surge protection for the transmission line may be required in areas where lightning strikes frequently occur.
- •A receiver for a wireless remote controller may not work properly due to the effect of general lighting. Leave a space of at least 1 m between the general lighting and receiver.
- ♦When the Auto-elevating panel is used and the operation is made by using a wired remote controller, install the wired remote controller to the place where all air conditioners controlled (at least the bottom part of them) can be seen from the wired remote controller. If not, the descending panel may cause damage or injury, and be sure to use a wireless remote controller designed for use with elevating panel (sold separately).
- ♦Install the wired remote controller (switch box) to the place where the following conditions are met.
  - ♦Where installation surface is flat
  - ♦Where the remote controller can detect an accurate room temperature

The temperature sensors that detect a room temperature are installed both on the remote controller and indoor unit. When a room temperature is detected using the sensor on the remote controller, the main remote controller is used to detect a room temperature. In this case, follow the instructions below.

- ♦Install the controller in a place where it is not subject to the heat source.

  (If the remote controller faces direct sunlight or supply air flow direction, the remote controller cannot detect an accurate room temperature.)
- ◆ Install the controller in a place where an average room temperature can be detected.
- ♦ Install the controller in a place where no other wires are present around the temperature sensor.

  (If other wires are present, the remote controller cannot detect an accurate room temperature.)
- ♦To prevent unauthorized access, always use a security device such as a VPN router when connecting AE-200E, AE-50E, EW-50E, AG-150A, EB-50GU-J, or TG-2000A to the Internet.

### **Maintenance Equipment**

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

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

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

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

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

Table 1. Maintenance cycle

Major components	Checking cycle	Maintenance cycle	Major components	Checking cycle	Maintenance cycle
Compressor		20,000 hours	Expansion valve		20,000 hours
Motor (Fan, Louver, drain pump)	1 year	20,000 hours	Valve (solenoid valve, four-way valve)	4	20,000 hours
Bearing		15,000 hours	Sensor (thermistor, presser sensor)	1 year	5 years
Electric board		25,000 hours	Drain pan		8 years
Heat exchanger		5 years			-

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

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

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

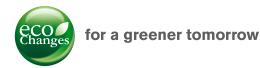
Table 2. Replacement cycle

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

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

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

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



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



FM33568 / ISO 9001;2008

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

#### ISO Authorization System

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



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

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

#### **⚠** Warning

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

#### MITSUBISHI ELECTRIC CORPORATION

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