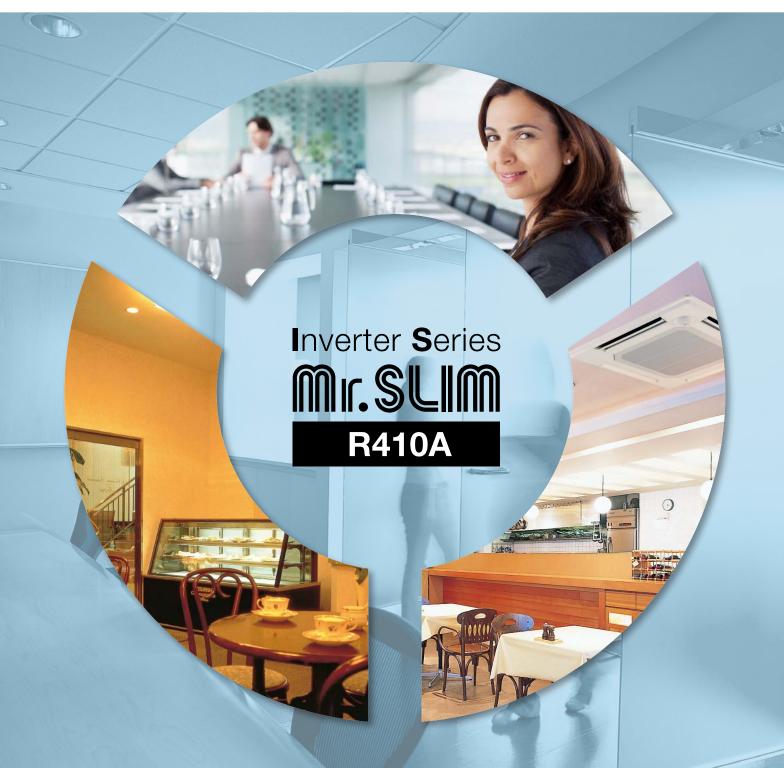


SPLIT-TYPE AIR CONDITIONERS







	18,000 BTU/h	24,000 BTU/h	30,000 BTU/h	36,000 BTU/h	42,000 BTU/h	48,000 BTU/h	Remote Controller	Contents
Ceiling-cassette (PLY SERIES)	PLY-P18BA	PLY-P24BA	PLY-P30BA	PLY-P36BA	PLY-P42BA	PLY-P48BA	optional	P. 07-09
Ceiling-suspended (PCY SERIES)	PCY-P18KA	PCY-P24KA	PCY-P30KA	PCY-P36KA	PCY-P42KA	PCY-P48KA	optional	P. 10
Ceiling-concealed (PEY SERIES)	PEY-P18JA	PEY-P24JA	PEY-P30JA	PEY-P36JA	PEY-P42JA	PEY-P48JA	optional optional	P. 11
Outdoor Unit	SUY-KA18VA	SUY-KA24VA	SUY-KA30VA	SUY-KA36VA	PUY-P42V/YKA	PUY-P48V/YKA For twin multi-operation (only PUY-P48V/YKA), please refer to page 12.		

Simply meeting industry standards, however stringent, is not enough. Our aim is to exceed them. When it comes to comfort, efficiency and durability, Mitsubishi Electric offers you a distinctive advantage. We call it MEQ — Mitsubishi Electric Quality. It results in benchmark leading-edge products like our air conditioners, which consume minimal power, protect your investment through a long service life, offer superior reliability and are built to take the punishment of extreme weather conditions year in and year out.

Mitsubishi Electric Offers Three Important Advantages

Comfort

Clean air, optimum temperature distribution and silent operation...

MEQ has led to the development of state-of-the-art air purification and deodorization filters that remove unwanted odors and impurities in the air. Original airflow technologies and specially designed components provide even temperature distribution even in remote regions of a room. At Mitsubishi Electric, comfort doesn't simply mean cool or warm, it means clean and quiet too.

Efficiency

Optimum cost performance and energy savings...

MEQ results in air conditioners that are rated among the best in the industry in terms of quality and energy efficiency. We strive for a perfect balance of performance, reliability, low power consumption and long service life. This is complemented by continuously introducing new technologies and components that further reduce energy requirements and negative environmental impact.

Durability

Rugged construction, rigorous testing, long-lasting operation...

MEQ is behind a mindset that goes to extremes to ensure higher quality products that protect the initial investment over years of reliable service. We subject our indoor and outdoor units to rigorous durability testing, including harsher temperature extremes than likely found anywhere in the world.



Doing Our Part to Create a Better Future for All

Core Environmental Policy

Mitsubishi Electric promotes sustainable development, and is committed to protecting and restoring the global environment through technology, all of its business activities and the actions of its employees.

R 410A refrigerant

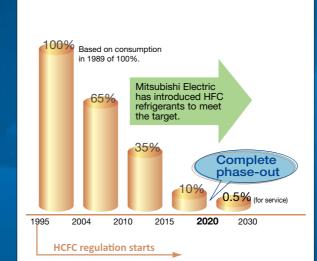
As scientific evidence points to man-made chemicals for the damage caused to the ozone layer, we only use chlorine-free refrigerants that are safe and rated zero ODP (Ozone Depletion Potential). Accordingly, our systems require less energy to run and have a significantly lower indirect global warming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

The Montreal Protocol calls for the complete abolishment of HCFC (such as R22) refrigerant production by the year 2020. Mitsubishi Electric is committed to shifting over to HFC models from HCFC models.

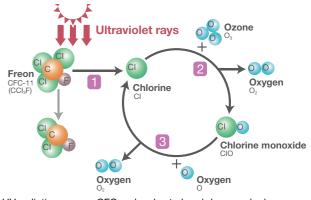
Montreal Protocol

Montreal Protocol regulates HCFCs

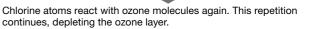
- HCFC production has been regulated since 2004.
- HCFCs will be entirely banned by 2020.



Mechanism of ozone layer depletion by HCFCs



- 1 UV radiation causes CFC molecules to breakdown and release
- Ozone molecules react with chlorine atoms and are broken down into oxygen atoms and chlorine monoxide.
- Oxygen atoms react with chlorine monoxide to form oxygen molecules and chlorine atoms.



HFC refrigerants do not contain chlorine, the causative agent of ozone layer depletion, which HCFC refrigerants contain. Therefore, Mitsubishi Electric has shifted over to HFC (R410A) refrigerants from HCFC (R22) refrigerants.

INVERTER TECHNOLOGIES

Mitsubishi Electric inverters ensure superior performance, including the optimum control of operation frequency. As a result, optimum power is applied in all heating/cooling ranges and maximum comfort is achieved while consuming minimal energy. Fast, comfortable operation and amazingly low running cost — That's the Mitsubishi Electric promise.

INVERTERS – HOW THEY WORK

Inverters electronically control the electrical voltage, current and frequency of electrical devices such as the compressor motor in an air conditioner. They receive information from sensors monitoring operating conditions and adjust the rotation speed of the compressor, which directly regulates air conditioner output. Optimum control of operation frequency results in eliminating the consumption of excessive electricity and providing the most comfortable room environment.

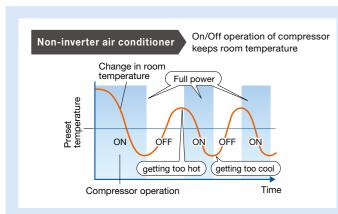
ECONOMIC OPERATION

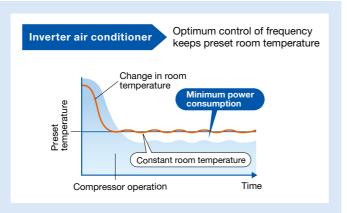
Impressively low operating cost is a key advantage of inverter-equipped air conditioners. We have combined advanced inverter technologies with cutting- edge electronic and mechanical technologies to achieve a synergistic effect that enables improvements in heating/cooling performance efficiency. As a result, better performance and lower energy consumption are achieved.

TRUE COMFORT

Below is a simple comparison of air conditioner operation control with and without an inverter.

■ Inverter operation comparison





The compressors of air conditioners without an inverter start and stop repeatedly in order to maintain the preset room temperature. This repetitive on/off operation uses excessive electricity and compromises room comfort. The compressors of air conditioners equipped with an inverter run continuously; the inverter quickly optimizing the operating frequency according to changes in room temperature. This ensures energy-efficient operation and a more comfortable room.

Point 1 Quick & Powerful

Increasing the compressor motor speed by controlling the operation frequency ensures powerful output at start-up, and brings the room temperature to the comfort zone faster than units not equipped with an inverter. Hot rooms are cooled, and cold rooms are heated, faster and more efficiently.

Point 2 Room Temperature Maintained

The compressor motor operating frequency and the change in room temperature are monitored to calculate the most efficient waveform to maintain the room temperature in the comfort zone. This eliminates the large temperature swings common with non-inverter systems and guarantees a pleasant, comfortable environment.



OTHER TECHNOLOGIES

MORE ADVANTAGES WITH MITSUBISHI ELECTRIC



Joint Lap DC Motor

Mitsubishi Electric has developed a unique motor, called the "Poki-Poki Motor", which is manufactured using a joint lapping technique. This innovative motor operates based on a high-density, high-magnetic force, leading to extremely high efficiency and reliability.

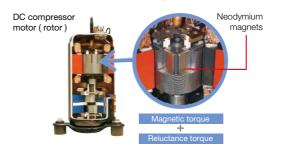






Reluctance DC Rotary Compressor

Powerful neodymium magnets are used in the rotor of the reluctance DC motor. More efficient operation is realized by strong magnetic and reluctance torques produced by the magnets.



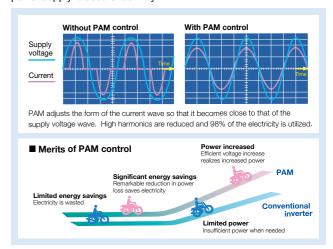


DC Fan Motor

A highly efficient DC motor drives the fan of the outdoor unit. Efficiency is much higher than an equivalent AC motor.

PAM (Pulse Amplitude Modulation)

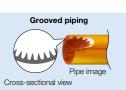
PAM is a technology that controls the current waveform so that it resembles the supply voltage wave, thereby reducing loss and realising more efficient use of electricity. Using PAM control, 98% of the input power supply is used effectively.





Grooved Piping

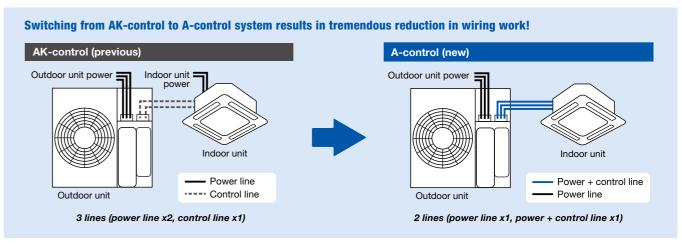
High-performance grooved piping is used in heat exchangers to increase the heat exchange area.



Easy Installation (A-control)

Mitsubishi Electric's A-control system adopts a "single-line method for power and control" that combines the power and control lines between the indoor and outdoor units into a single line. Power is obtained from a line on the outdoor unit. Additionally, a single triplex line is sufficient for wiring between indoor units for the Twin-multi system.

■ Outdoor unit system control comparison



4-way Ceilingcassette

(PLY SERIES)





A sophisticated design that matches a variety of rooms and a high level of convenience enhancing your quality of life are combined in this compact, multifunctional indoor unit.

Wide Airflow

Wide-angle outlets distribute airflow to all corners of the room, ensuring the room is sufficiently cooled/heated. Horizontal airflow and a fan speed reduced by 20% compared to conventional models also contribute to increased comfort for occupants.



Less Cold Draft

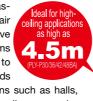
The horizontal airflow function prevents cold drafts from striking the body directly, thereby keeping the body from becoming chilled.



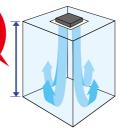
Horizontal airflow prevents drafty feeling

Wide-flow Air Outlet

The high-power ceiling cassettes offer a wide-flow air outlet that enables effective air conditioning of rooms with atrium ceilings up to







ecification according to ceiling height

	F	PLY-P18/24E	BA	PLY	-P30/36/42/4	18BA
	Low ceiling*	Standard	High ceiling	Low ceiling*	Standard	High ceiling
4-way	2.5	2.7	3.5	2.7	3.2	4.5
3-way	2.7	3.0	3.5	3.0	3.6	4.5

* If required to use Low Ceiling mode under high humidity conditions, please consult with your

Automatic Air-speed Adjustment

An automatic air-speed adjustment mode is provided in addition to the four air-speed stages, of High, Medium 1, Medium 2, and Low. Air speed can be changed freely according to the difference between set temperature and room temperature. The automatic air-speed adjustment mode offers quick cooling of a room in High mode, such as when starting cooling operation. After the room temperature is stabilized, the system switches to Low mode automatically to maintain comfort.



(When using the wireless remote controller, an extra setting is required.)

Automatic Vane Shutter*

When the air conditioner is not operating, the vane shutter closes automatically to conceal the air outlet and create an aesthetically appealing flat surface.

*This feature will not activate when the vane is set



Unit Height of Only 258mm (PLY-P18/24BA)

Ceiling cassette models boast a slim body height for smooth and aesthetic installation, even in narrow spaces.



"Pure White" Colour Matches Interior Décor

The colour "Pure White" has been introduced for the decoration panel and wired remote controller so as to blend in with any interior décor.

Quiet Operation

An improved airflow path and powerful highcapacity flow fan contribute to the realisation of quieter operation.



Other Features

- Maximum upward draining of 850mm
- Wireless remote controller available
- Duct flange for fresh-air intake
- Branch duct

Automatic Grille Lowering Function (Option)

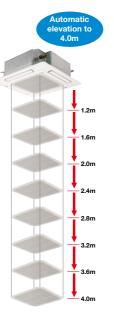
Easy to use/Simple maintenance

An automatic grille lowering function capable of stopping at eight different heights is available to simplify filter maintenance.



Elevating (up-down)

(comes with the automatic elevation panel)



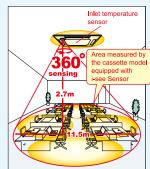
Î-see Sensor

(optional corner panel)

The "i-see Sensor" built into the optional corner panel eliminates uneven temperature distribution and reduces electricity consumption.

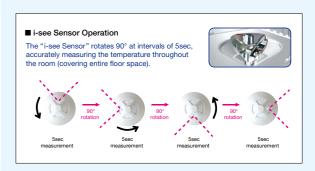


With optional i-see Sensor corner panel



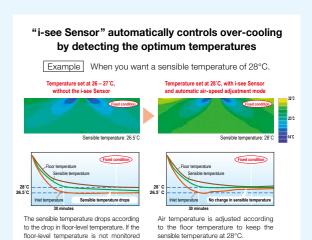
"i-see Sensor" temperature-sensing technology improves energy efficiency and enhances room comfort

The "i-see Sensor" is an innovative Mitsubishi Electric technology that uses a radiation-based sensor to monitor temperature throughout an entire room. When connected to the air conditioner control panel, the "i-see Sensor" works to maximize room comfort.



Sensible temperature control prevents excessive cooling through pioneering control technology

By measuring the inlet temperature and floor temperature, temperatures felt by the human body (sensible temperature) are computed. This allows the proper sensible temperature to always be maintained through the suppression of excessive cooling.



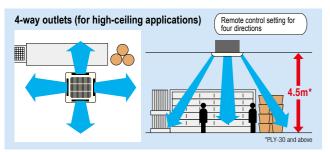
during long cooling operation, the sensible temperature becomes chilly.

Vane Control



Wide airflow coverage down to the floor even in expansive spaces like large factory-outlet centers or shopping malls with high ceilings.

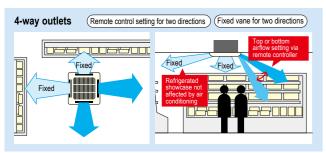
The unique airflow design of the powerful ceiling-cassette models reduces pressure loss and provides wide cool-air coverage from high ceilings to the floor even in expansive spaces like shopping malls with ceilings over 4 metres in height.



For Retai Outlets

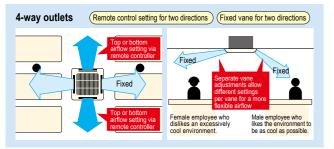
These units are ideal for maintaining constant temperatures in environments that have equipment such as refrigerated showcases.

Individual vane angle adjustment enables precise airflow control to specific areas of the store to reduce unnecessary air conditioning of areas such as refrigerated showcases.



Flexible and pleasant airflow eliminates annoying drafts within the office environment.

In office environments, annoying drafts can be bothersome, leading to discomfort and reduced productivity. Precise vane control helps to eliminate this problem.



Fresh-air Intake

Indoor air quality is significantly enhanced by the direct intake of fresh air from outside. An optional multi-function casement (PAC-SH53TM-E) is also available for the intake of a larger volume of air.



Drain Water Lifting Mechanism

A high-performance drain pump on the drain water lifting mechanism allows the drain water pipe to be routed as high as 850mm from the ceiling surface.



Handy Corner Pocket Design Simplifies Maintenance

By using the handy pockets equipped on the four corners of the grille, maintenance work such as drain pan cleaning and height adjustments can be accomplished without removing the grille.

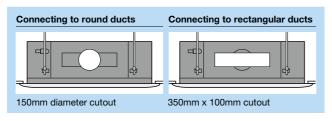


Bacteria- and Mold-resistant Specifications

Mitsubishi Electric filters are bacteria-resistant, and the drain pans are designed to prevent the growth of mold for fresh and pleasant air conditioning at all times.

Compatible with Round and Rectangular Ducts

For easy connection to branch ducts, knock-out holes are designed to fit both round and rectangular ducts. Matching the shape of the duct fringe provides more flexibility during installation.



Features at a glance

i eatures at a giance		
Installation & Maintenance	Comfort	Others
Chargeless system	• i-see Sensor	System control
Compact design	Auto fan speed	Twin-multi operation
Drain water lifting (850mm)	Wide vane	Auto vane shutter
Handy corner pocket	Smudge/draft-free	Auto restart
Long-life filter (2500hr)*	High-ceiling application	Fresh-air intake
Self-diagnostic function	Computerized dehumidifier	Outdoor unit max.
Filter indicator	Quiet operation	operating temp. of 46°C
(for wired remote controller)	Bacteria-and mold-resistant filter	
Flockless vanes		
Flevation grille		

^{*}May vary according to operating conditions

Ceilingsuspended

(PCY SERIES)





A stylish indoor unit design and airflow settings for both high- and low-ceiling interiors expand installation possibilities

Stylish Indoor Unit Design

A stylish square-like design is adopted for the indoor units of all models. As a result, the units blend in better with the ceiling.



Optional Drain Pump for Full-capacity Models

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



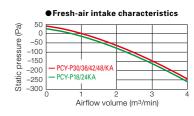
Automatic Air-speed Adjustment

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



Fresh-air Intake

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



Flockless Vanes

With the adoption of flockless vanes, dirt and other impurities can be cleaned off easily using a mild household detergent.

Features at a glance

	-	
Installation & Maintenance	Comfort	Others
Chargeless system	Auto swing	System control
New direct suspension system	Computerized dehumidifier	Twin-multi operation
 Drain water lifting (600mm)*1 	Quiet operation	Auto restart
Flexible piping		Auto vane shutter
 Long-life filter (2500hr)*2 		Outdoor unit max. operating
 High-efficiency filter*1 		temp. of 46°C
 Self-diagnostic function 		

*1 Optional
*2 May vary according to operating conditions

Ceiling-concealed

(PEY SERIES)



PEY-P18/24/30/36/42/48JA







The thin, ceiling-concealed indoor units of the PEY series are the perfect answer for the air-conditioning requirements of buildings with minimum ceiling installation space and wide-ranging external static pressure. Energy-saving efficiency has been improved, thereby reducing electricity consumption and contributing to a further reduction in operating cost.

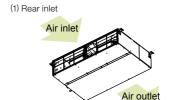
Compact Indoor Units

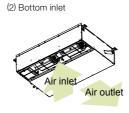
For all models, unit height is unified to 250mm. Compared to the previous model, height has been reduced, allowing installation in tight spaces such as ceiling cavities or drop-ceilings.



Air Inlet

Units with bottom inlets make more noise than those with rear inlets. It is recommended that the rear inlet be selected when installing a unit in a room that should be quiet, such as a bedroom.



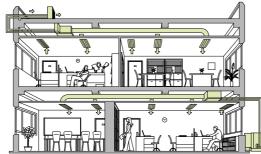


Wide Selection of Fan Speeds and External **Static Pressure**

Five-stage external static pressure conversions and three fan speed selections are available. Capable of being set to a maximum of 125Pa, units are applicable to a wide range of building types.

■External static pressure setting

Series	18	24	30	36	42	48
PEY-P-JA		35/	/50/70/	100/125	Pa	



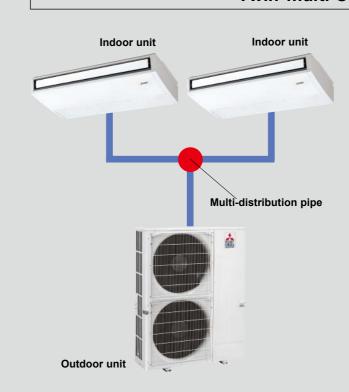
Features at a glance

Installation & Maintenance	Comfort	Others
 Chargeless system 	Computerized dehumidifier	System control
 Smooth installation 	Quiet operation	Twin-multi operation
 Self-diagnostic function 		Auto restart
		Outdoor unit max. operating temp. of 46°C

CONTROL TECHNOLOGIES







Two indoor units can be connected to a single outdoor unit and both units can be operated simultaneously from a single remote controller using the optional multi-distribution pipe (only indoor units of the same capacity can be connected).

Outdoor Unit and Twin-multi Combinations

Outdoor unit	Twin-multi
PUY-P48V/YKA	24 + 24
Multi-distribution pipe	MSDD-50TR-E

- The capacity of both indoor units must be identical.
- Different types of indoor units with identical capacities can be connected.
- The height difference between both indoor units must be 1 meter or less. When two units are connected, the main unit can be used to control the

Mr. SLIM

Convenient Remote Controller



Stylish wireless remote controller with all the latest programming features

- FAN SPEED SELECT button Used to change fan speed.
- VANE CONTROL button Used to change airflow direction.
- MODE SELECTION button Used to select operating modes -Cool, Dry and Fan.
- TIMER CONTROL buttons

STOP (OFF timer): When this function is activated, the air conditioner will automatically stop at the preset time. START (ON timer): When this function is activated, the air conditioner will automatically start at the preset time.

• FAN SPEED INDICATOR

Displays the fan speed (HIGH or LOW).

- HOUR and MINUTE buttons Used to set the time and timer settings.
- TIMER button/RESET button

CONTROL **TECHNOLOGIES**

User-friendly Deluxe Remote Controller with Excellent Operability and Visibility



Full-dot Liquid-crystal Display Adopted

Easier to read thanks to use of a full-dot liquid-crystal display with backlight, and easier to use owing to the adoption of a menu format that enabled the number of operating buttons to be reduced.

Display Example [Operation Mode]





Easy-to-Read & Easy-to-Use



Multi-language Display Control panel operation in eight different languages

Choose the desired language from among the following.

[English]	[Spanish]	[Italian]	[German]	[French]	[Russian]	[Portuguese]	[Swed
Cool	Frio	Raffred	Kühlen	Froid	Охлажд.	Frio	Ky
**	*	*	*	*	*	**	*

Energy-efficient Control

Operation Control Functions

Auto-return

Prevents wasteful operation by automatically returning to the preset temperature after specified operating time

After adjusting the initial temperature on a hot day, it is easy to forget to return the temperature setting to its original value. The Auto-return function automatically resets the temperature back to the original setting after a specified period of time, thereby preventing overcooling. The Auto-return activation time can be set in 10minute units, in a range between 30 and 120 minutes.

*Auto-return cannot be used when Temperature Range Restriction is in use



Keep desired room temperatures automatically

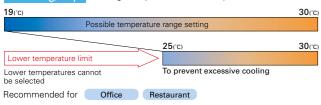
This function monitors the room temperature and automatically activates the cooling mode when the temperature rises above the preset maximum temperature setting.

Temperature Restriction

Temperature Range Restriction prevents overcooling

Using a temperature that is 1°C higher for cooling results in a 10% reduction in power consumption.* Temperature Range Restriction limits the maximum and minimum temperature settings, contributing to the prevention of overcooling. *In-

(Setting example of minimum temp. at 25°C)



Auto-off Timer

Turns cooling off automatically after preset time elapses

When using Auto-off Timer, even if one forgets to turn off the unit, operation stops automatically after the preset time elapses, thereby preventing wasteful operation. Auto-off Timer can be set in 10-minute units, in a range between 30 minutes and 4 hours. Eliminates all anxiety about forgetting to turn off the unit.

Recommended for Meeting room Changing room

Operation

Fixed temperature setting promotes energy savings

In addition to operation start/stop, the operation mode, temperature setting and airflow direction can be locked. Unwanted adjustment of temperature settings is prevented and an appropriate temperature is constantly maintained, leading to energy savings. This feature is also useful in preventing erroneous operation or tampering.

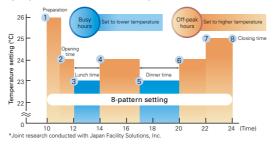
Recommended for Office School Public hall Hospital Computer server facility

Weekly

Set up to 8 patterns per day including temperature control

The Weekly Timer enables the setting of operation start and stop times and adjusting the temperature as standard features. Up to 8 patterns per day can be set, providing operation that matches the varying conditions of each period, such as the number of customers in the store.*Weekly Timer cannot be used when On/Off Timer is in use.

Setting Example (restaurant in summer time)



Easily raise/lower panels using the remote controller (PLY-P42/48BA)

An automatic panels lowering function is available as an option. The panels can be lowered/raised using a button on the wired remote controller. Filter cleaning

Reassuring Troubleshooting Navigation Function -

Contact Details Displayed When Abnormality Occurs Easily contact a service company when there is a problem.

The telephone number of a service company and other information can be input and stored in advance. When a problem occurs, the contact details are displayed automatically, and a call for help can be made without delay



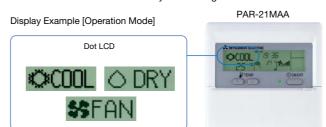




Advanced MA Remote Controller -A Progressive Step in the Evolution of Air Conditioning Control

Dot Liquid-crystal Display Adopted

The adoption of dot liquid-crystal display (LCD) technology and a large display screen for the control panel optimise visibility. Operation and control status are easily read at a glance





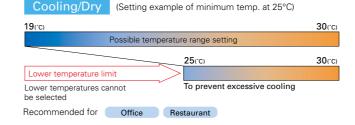
Energy-efficient Control

Operation Control Functions

Temperature Range Restriction

Air conditioner operation restricted to within a specified operating range

Set the upper and lower limits for the temperature range during operation. Excessive cooling is prevented, leading to increased energy savings.





Automatically turns off air conditioner

Set the time for the air conditioner to turn off automatically. The timer can be set in the range from 30 minutes up to 4 hours in 30-minute intervals.

The "Simple Timer"—starts/stops in units of 1 hour in a 72-hour period—is set at the time of shipment from the factory. It can be changed to the "Auto-off Timer" function using the remote controlle

Recommended for Meeting room Changing room

Operation Lock

Prevent operation settings from being changed

Units can be set so that the operation mode cannot be changed. When "Operation Lock" is activated, new temperature setting commands are not accepted, thereby ensuring that the unit runs in the specified (locked in) temperature range. This promotes energy savings and prevents erroneous/ mischievous operation. Only the administrator can change settings when using the Operation Lock mode.

Recommended for Office School Public hall Hospital Computer server facility

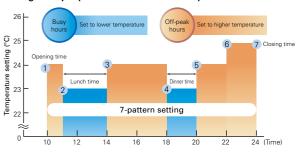
Weekly

Introduced in response to market demand

Control temperature on a weekly basis

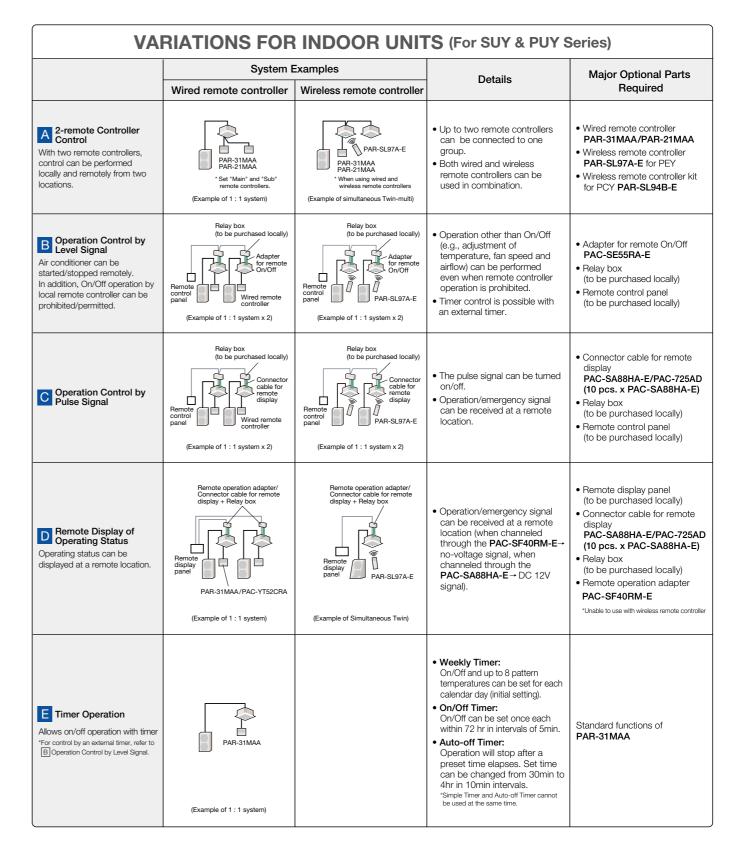
Temperature settings and On/Off control can be managed over a period of one week using the Weekly Timer. Up to eight setting patterns per calendar day are

Setting Example (restaurant in summer time)



(Results of cooperative study with Japan Facility Solutions, Inc.)

	MAJOR SYSTEM CON	NTROLS						
	System	Examples						
Indoor Unit	PLY, PCY, PEY	Series indoor unit						
Outdoor Unit	SUY Series outdoor unit	PUY Series outdoor unit						
PAR-31MAA Control PAR-21MAA Control		Indoor unit RR-31MAA RR-21MAA control						
Details	Standard equipment (for indoor units compatible with wired ren	Standard equipment (for indoor units compatible with wired remote controllers)						
Major Optional Parts Required	PAR-31MAA (wired remote controller) PAR-21MAA (wired remote controller)							
Group Control System Group Control	Indoor unit Indoor unit MAC-333IF-E PAR-31MAA PAR-21MAA	Outdoor unit Indoor unit PAR-31MAA PAR-21MAA						
Details	One remote controller can simultaneously control multiple air One remote controller can control up to 16 refrigerant system Up to two remote controllers can be connected.	conditioners with the same settings. s.						
Major Optional Parts Required	MAC-333IF-E (interface) PAR-31MAA (wired remote controller) PAR-21MAA (wired remote controller)	PAR-31MAA (wired remote controller) PAR-21MAA (wired remote controller)						
M-NET Connections	Outdoor unit Indoor unit City Multi indoor unit PAR-31MAA PAR-21MAA PAR-21MAA MELANS system controller (AG-150A etc) PAC-SC51KUA power supply unit	PAC-SC51KUA power supply kit PAR-31MAA PAR-21MAA PAR-21MAA Outdoor unit MELANS system controller (AG-150A etc)						
Details	Group of air conditioners can be controlled by MELANS system	em controller (M-NET).						
Major Optional Parts Required	MAC-333IF-E (interface) MELANS system controller PAC-SC51KUA (power supply unit)	PAC-SF83MA-E (M-NET converter) MELANS system controller PAC-SC51KUA (power supply unit)						



SPECIFICATIONS

4-way Ceiling-cassette (50Hz/60Hz)

Models				PLY-P18BA	PLY-P24BA	PLY-P30BA	PLY-P36BA	PLY-P42BA	PLY-P42BA	PLY-P48BA	PLY-P48BA	
Cooling ca	pacity		kW	5.3 (2.8-5.4)	7.1 (3.6-8.9)	8.8 (4.1-9.7)	10.6 (4.1-10.7)	12.3 (6	.2-14.1)	13.2 (6	6-15.0)	
Cooling ca	pacity (rated)		BTU/h	18,000	24,000	30,000	36,000	42,	000	45,	000	
Total input			kW	1.47	2.02	2.36	3.13	3.	68	4.	31	
EER			W/W	3.61	3.51	3.73	3.39	3.	34	3.	06	
	Model name			PLY-P18BA	PLY-P24BA	PLY-P30BA	PLY-P36BA	PLY-P42BA	PLY-P42BA	PLY-P48BA	PLY-P48BA	
			50Hz		1ph 220-240V							
	Power supply		60Hz	1ph 220V								
	External finish			Munsell 6.4Y 8.9/0.4								
	Airflow (low-mid2-mid1-high)		CMM	12-13-14-16	14-16-18-20	20-22-25-28			24-26-29-32			
	Airiiow (iow-midz-mid i-nigh)		CFM	425-460-495-565	495-565-635-705	705-775-885-990		3	350-920-1025-1130	D		
Indoor	External static pressure	Pa				0 (direc	t blow)					
unit	Operation control and therm	osta	t				Remote contr	ol and Built-in				
	Noise level (low-mid2-mid1-high)		dB (A)	28-29-30-32	28-30-32-34	33-35-38-41			37-39-41-44			
	Unit drain pipe (outer diamet	mm				3	2					
	Dimensions (panel)	W	mm				840 (950)					
		D	mm		840 (950)							
		Н	mm	258	(35)			298	(35)			
	Weight (panel)	kg	19 (6)	22 (6)	24 (6)		26 (6)					
	Model name			SUY-KA18VA	SUY-KA24VA	SUY-KA30VA	SUY-KA36VA	PUY-P42VKA	PUY-P42YKA	PUY-P48VKA	PUY-P48YKA	
	Power supply		50Hz			1ph 220-240V			3ph 380-415V	1ph 220-240V	3ph 380-415V	
	rower supply		60Hz			1ph 220V			3ph 380V	1ph 220V	3ph 380V	
	External finish						Munsell 3.	0Y 7.8/1.1				
	Refrigerant (R410A) control						Liner expa	nsion valve				
	Airflow		CMM (CFM)	34 (1200)	46 (1	1625)	51 (1800)		130 (4595)		
	Noise level		dB (A)	51	54	56	58	5	5	5	6	
Outdoor		W	mm	800		840			10	50		
unit	Dimensions	D	mm	285		330			33	30		
		Н	mm	550		880			13	38		
	Weight		kg	33	47	50	51	94	96	94	96	
	Max. height difference		m	12		15				0		
	Max. piping length		m	20		30				0		
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.5		quid: 9.52, Gas: 15.	88		Liquid: 9.52	-		
	Chargeless piping length		m		-	7			3	0		

Ceiling-suspended (50Hz/60Hz)

Models				PCY-P18KA	PCY-P24KA	PCY-P30KA	PCY-P36KA	PCY-P42KA	PCY-P42KA	PCY-P48KA	PCY-P48KA		
Cooling car	pacity		kW	5.3 (2.8-5.4)	7.1 (3.6-8.9)	8.8 (4.1-9.7)	10.6 (4.1-10.7)		.2-14.1)		6-15.0)		
	pacity (rated)		BTU/h	18,000	24,000	30,000	36,000	,	000	46,0			
Total input			kW	1.51	2.1	2.6	3.13	3.	68	4.4	41		
EER			w/w	3.51	3.38	3.38	3.39	3.	34	3.0	06		
	Model name			PCY-P18KA	PCY-P24KA	PCY-P30KA	PCY-P36KA	PCY-P42KA	PCY-P42KA	PCY-P48KA	PCY-P48KA		
			50Hz		1ph 220-240V								
	Power supply 60Hz			1ph 220V									
	External finish						Munsell 6.4	4Y 8.9/0.4					
	A. 0			16-17-18-20	16-18-20-22	24-26-28-30			27-29-32-34				
	Airflow (low-mid2-mid1-high)		CFM	565-600-635-705	565-635-705-775	850-920-990-1060		9	55-1025-1130-120	00			
Indoor	External static pressure		Pa				0 (direc	t blow)					
unit	Operation control and thermo	stat					Remote contr	ol and Built-in					
	Noise level (low-mid2-mid1-high)		dB (A)	34-36-38-40	34-36-40-42	39-41-43-45			42-44-46-48				
	Unit drain pipe (internal diameter)		mm		26								
		W	mm	1280 1600									
	Dimensions	D	mm				68	30					
		Н	mm				23	30					
	Weight		kg	3	2	37			40				
	Model name			SUY-KA18VA	SUY-KA24VA	SUY-KA30VA	SUY-KA36VA	PUY-P42VKA	PUY-P42YKA	PUY-P48VKA	PUY-P48YKA		
	Power supply		50Hz			1ph 220-240V		3ph 380-415V	1ph 220-240V	3ph 380-415V			
			60Hz			1ph 220V			3ph 380V	1ph 220V	3ph 380V		
	External finish						Munsell 3.	OY 7.8/1.1	-				
	Refrigerant (R410A) control						Liner expa	nsion valve					
	Airflow		CMM (CFM)	34 (1200)	46 (1	1625)	51 (1800)		130 (4595)			
	Noise level		dB (A)	51	54	56	58	5	55	5	6		
Outdoor		W	mm	800		840			10	150			
unit	Dimensions	D	mm	285		330			30	30			
		Н	mm	550		880			13	38			
	Weight		kg	33	47	50	51	94	96	94	96		
	Max. height difference		m	12		15			3	0			
	Max. piping length		m	20		30			5	0			
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.5	Lic	quid: 9.52, Gas: 15	.88		Liquid: 9.52	, Gas: 15.88			
	Chargeless piping length		m		7	7			3	0			



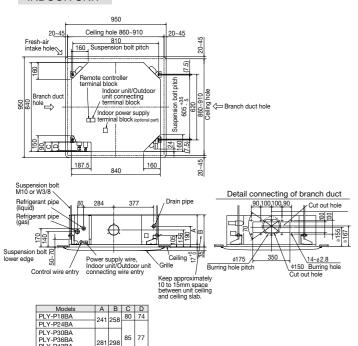
Ceiling-concealed (50Hz/60Hz)

Models				PEY-P18JA	PEY-P24JA	PEY-P30JA	PEY-P36JA	PEY-P42JA	PFY-P42JA	PEY-P48JA	PFY-P48JA		
Cooling ca	nacity		kW	5.3 (2.8-5.4)	7.1 (3.6-8.9)	8.8 (4.1-9.7)	10.6 (4.1-10.7)		2.3 (6.2-14.1) 13.5 (6.6-15.0)				
	pacity (rated)		BTU/h	18.000	24,000	30.000	36.000	42.0		,	000		
Total input	. , , ,		kW	1.57	2.02	2.5	3.33	3.1			41		
EER			W/W	3.38	3.51	3.52	3.18	3.5		3.06			
EEN	Model name		VV/VV	PEY-P18JA	PEY-P24JA	PEY-P30JA	PEY-P36JA	PEY-P42JA	PEY-P42JA	PEY-P48JA	PEY-P48JA		
	Woder Harrie		50Hz	PEY-PI8JA	PEY-P24JA	PEY-P3UJA			PEY-P4ZJA	PEY-P48JA	PEY-P48JA		
	Power supply	Power supply		1ph 220-240V 1ph 220V									
			60Hz								-		
	External finish				.===		Galvaniz	ed sheet					
	Airflow (low-mid-high)		CMM	12-14.5-17	17.5-21-25	24-29-34			29.5-35.5-42				
			CFM	425-510-600	620-740-885	850-1025-1200			1040-1225-1485				
Indoor	External static pressure		Pa				35-50-70						
unit	Operation control and thermostat						Remote contr	ol and Built-in					
	Noise level (low-mid-high)		dB (A)	30-35-39	30-34-39	33-38-42			36-40-44				
	Unit drain pipe (outer diameter)		mm	32									
	_	W	mm	900 1100 1400									
[Dimensions	D	mm	732									
		Н	mm				25	50					
	Weight		kg	27	29	38		39					
	Model name			SUY-KA18VA	SUY-KA24VA	SUY-KA30VA	SUY-KA36VA	PUY-P42VKA	PUY-P42YKA	PUY-P48VKA	PUY-P48YKA		
	Danier annah		50Hz			1ph 220-240V			3ph 380-415V	1ph 220-240V	3ph 380-415V		
	Power supply		60Hz			1ph 220V		3ph 380V 1ph 220V 3ph 380V					
	External finish						Munsell 3.	0Y 7.8/1.1					
	Refrigerant (R410A) control						Liner expa	nsion valve					
	Airflow		CMM (CFM)	34 (1200)	46 (*	1625)	51 (1800)		130 (4595)			
	Noise level		dB (A)	51	54	56	58	5	5		56		
Outdoor		W	mm	800		840			10	50			
unit	Dimensions	D	mm	285		330			3:	30			
		Н	mm	550		880			13	38			
	Weight	_	kg	33	47	50	51	94	96	94	96		
	Max. height difference		m	12		15			3	30			
	Max. piping length		m	20		30				50			
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.5	Lic	quid: 9.52, Gas: 15.	88			, Gas: 15.88			
	Chargeless piping length		m			7			3	30			

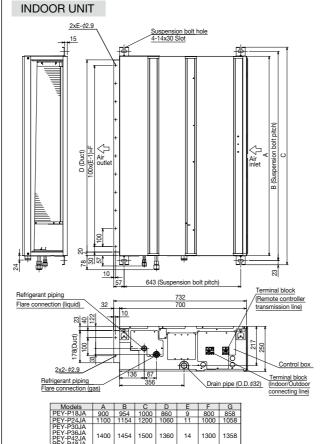
EXTERNAL DIMENSIONS

PLY-P18BA PLY-P24BA PLY-P30BA PLY-P36BA PLY-P42BA PLY-P48BA



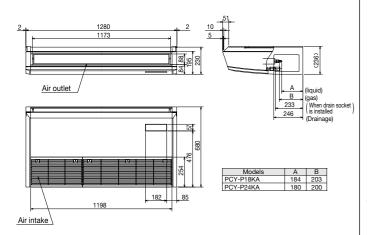


PEY-P18JA PEY-P24JA PEY-P30JA PEY-P36JA PEY-P42JA PEY-P48JA



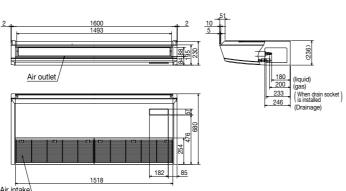
PCY-P18KA PCY-P24KA

INDOOR UNIT



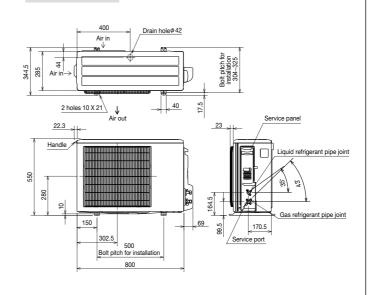
PCY-P30KA PCY-P36KA PCY-P42KA PCY-P48KA

INDOOR UNIT



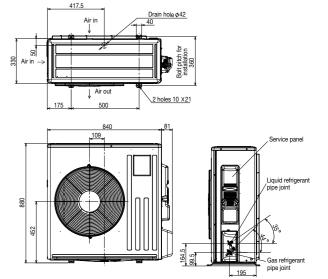
SUY-KA18VA

OUTDOOR UNIT



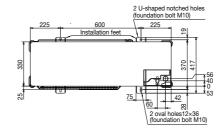
SUY-KA24VA SUY-KA30VA SUY-KA36VA

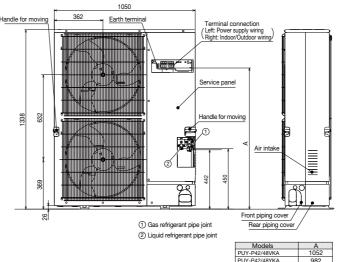
OUTDOOR UNIT



PUY-P42V/YKA PUY-P48V/YKA

OUTDOOR UNIT





Unit: mm

Notes for All Specifications

Rating conditions

Cooling - Indoor: 27°C (80°F) DB, 19°C (66°F) WB Outdoor: 35°C (95°F) DB

Refrigerant piping length (one-way): 7.5m (25ft)

Total input based on the indicated voltage (indoor/outdoor)

	Indoor	Outdoor			
	indoor	18/24/30/36/42/48V	42/48Y		
50Hz	Single-phase, 220-240V	Single-phase, 220-240V	Three-phase, 380-415V		
60Hz	Single-phase, 220V	Single-phase, 220V	Three-phase, 380V		

Guaranteed Operating Range

		SUY-KA	PUY-PKA
Ocalia	Upper limit (DB)	46°C	46°C
Cooling	Lower limit (DB)	18°C	-5°C*

^{*}With the optional Air Protection Guide, operational at outdoor temperatures as low as -15°C is possible.

Sound Pressure Level

- Sound pressure measurements were conducted in an anechoic chamber.
- The actual noise level depends on the distance from the unit and the acoustic environment.

Refrigerant Piping

0 "	Between indoor a	and outdoor units	Pipe size (mm, outer dia.)	-	
Capacity	Max. height difference (m)	Max. height difference (m) Max. piping length (m)		Thickness (mm)	
SUY-KA18	12	20	Liquid: ø6.35	t 0.8	
301-NA10	12		Gas: ø12.7	t 0.8	
SUY-KA24/30/36	15	30	Liquid: ø9.52	t 0.8	
301-KA24/30/30	10		Gas: ø15.88	t 1.0	
PUY-P42V/YKA	20	50	Liquid: ø9.52	t 0.8	
PUY-P48V/YKA	30	50	Gas: ø15.88	t 1.0	

Refrigerant Requirements (R410A: kg)

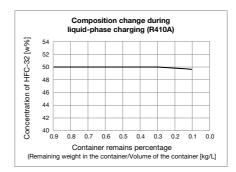
Dining Inneth	Factory charged	Additional charge						Calculation			
Piping length	7m	10m	15m	20m	25m	30m	35m	40m	45m	50m	Calculation
SUY-KA18	1.2	0.05	0.12	0.2	_	_	_	_	_	_	Xg = 15g/m × (length-7) m
SUY-KA24	2.0	0.06	0.16	0.26	0.36	0.36	_	_	_	_	Xg=20g/m×(length-7)m
SUY-KA30	2.1	0.06	0.16	0.26	0.36	0.46	_	_	_	_	
SUY-KA36	2.5	0.06	0.16	0.26	0.36	0.46	_	_	_	_	
PUY-P42V/YKA PUY-P48V/YKA	4.2	0	0	0	0	0	0.15	0.3	0.45	0.6	Xg=30g/m x (length-30)m

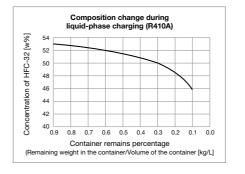


Properties of R410A and R22 Refrigerants

Chemical properties

R410A and R22 are chemically stable, low-toxin, non-flammable refrigerants. The relative specific gravity of R410A is greater than that of air. In the unlikely event that this refrigerant leaks into a closed room, it will accumulate low to the floor, causing a lack of oxygen in that air layer and possible result in an accident. Additionally, poisonous gas may be produced if R410A comes into contact with open flame. So please be certain to handle it only in well ventilated areas where the accumulation of leaking refrigerant can be prevented.





R410A is a near-azeotropic refrigerant blend of R32 and R125, so R410A can be handled in almost the same manner as a singlecomponent refrigerant like R22. However, the composition between gas and liquid phases changed slightly when in a container like a cylinder. Therefore, charge R410 in the liquid phase.

	New refrigerant (HFCs)	Previous refrigerant (HCFCs)	
	R410A	R22	
Composition (wt%)	R32/R125 (50/50)	R22 (100)	
Classification of refrigerant	Near-azeotropic	Single-component	
Chlorine	No	Yes	
Molecular weight	72.8	86.5	
Boiling point (°C)	-51.4	-40.8	
Vapor pressure (25°C, MPa) <gauge></gauge>	1,557/557	0.94	
Saturated vapor density (25°C, kg/m³)	64	44.4	
Inflammability	Non-flammable	Non-flammable	
Ozone depletion potential (ODP)*1	0	0.055	
Global warming potential (GWP)*2	1975	1700	
Refrigerant charging method	Liquid phase from cylinder*3	Gas phase	
Additional charging in case of leakage	Possible	Possible	

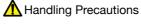
^{*1} Base: CFC11 is 0.

Pressure properties

R410A refrigerant has a higher pressure than R22 refrigerant.

Pressure (gauge)	R410A	R22	
	MPa (gauge) / kgf	MPa (gauge) / kgf	
Temperature (°C)	/ cm² (gauge)	/ cm² (gauge)	
-20	0.30 / 3.1	0.14 / 1.4	
0	0.70 / 7.1	0.40 / 4.1	
20	1.35 / 13.8	0.81 / 8.3	
40	2.33 / 23.8	1.44 / 14.7	
60	3.74 / 38.1	2.33 / 23.8	
65	4.16 / 42.3	2.60 / 26.5	

As the vapor pressure of R410A is 1.6 times that of R22 at a given temperature, perform charging at the time of installation using dedicated anti-high-pressure tools and materials for R410A. (Reference: Table of thermophysical properties by JRAIA, NISTREFPROPV5.10, Asahi Glass Co., Ltd. and others.)



Mixing of refrigerants

R410A is a refrigerant blend of HFC32 and HFC125. R22 has different properties from R410A. Therefore, never mix R410A and R22.

Pressure rise (R410A)

As the vapor pressure of R410A is 1.6 times higher than R22 at a given temperature, use dedicated extension pipes for R410A. Tools dedicated for R410A may also be required. Special care should be taken when charging units with R410A.

Control of moisture

If excessive moisture gets into the refrigerant system, it can cause capillary clogging, deteriorate compressor insulation, etc.

Control of contaminants

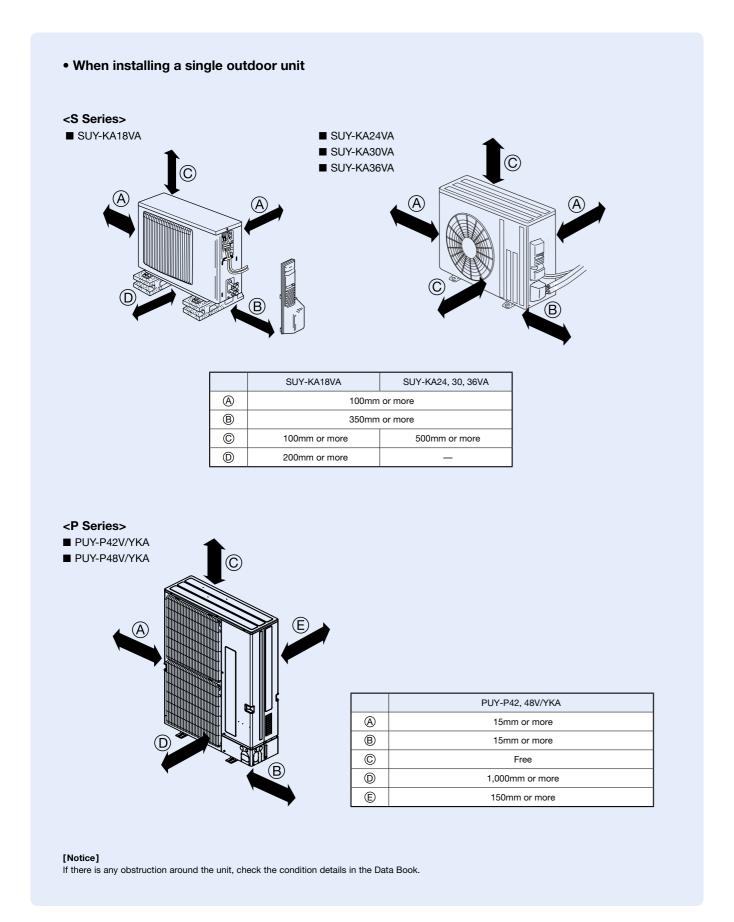
If waste, air, flux, mineral oil, etc. get into the refrigerant system, it accelerates the resolution or deterioration of the refrigerant oil, which causes capillary clogging, deterioration of compressor insulation, etc.

^{*2} Base: CO2 is 0.

^{*3} Charging a liquid refrigerant rapidly may lock the compressor, so add the refrigerant gradually.

Mr.SUM Inverter Series 23-24

Outdoor Unit Installation Location



Optional Parts

Part name	Model name	Application name
Drain pump	PAC-SH84DM-E	PCY-P24/30/36/42/48
Drain paintp	PAC-SH85DM-E	PCY-P18
Flange for fresh-air intake	PAC-SH65OF-E	PLY-P
M-NET and Terminal interface	MAC-333IF-E	All indoor units
Wireless remote controller	PAR-SL97A-E	PLY-P / PEY-P
Wireless remote controller	PAR-SA9CA-E	PEY-P
signal receiver	PAR-SA9FA-E	PLY-P
High-efficiency filter	PAC-SH89KF-E	PCY-P18/24
ngri emolency inter	PAC-SH90KF-E	PCY-P30/36/42/48
High-efficiency filter element	PAC-SH59KF-E	PLY-P
	PAC-KE92TB-E	PEY-P18
Filter box	PAC-KE93TB-E	PEY-P24
	PAC-KE94TB-E	PEY-P30/36/42/48
-see Sensor corner panel	PAC-SA1ME-E	PLY-P
Shutter plate	PAC-SH51SP-E	PLY-P
Multi-function casement	PAC-SH53TM-E	PLY-P
Remote On/Off adaptor	PAC-SE55RA-E	All indoor units
Remote operation adaptor	PAC-SF40RM-E	All indoor units
Remote sensor	PAC-SE41TS-E	All indoor units
Space panel	PAC-SH48AS-E	PLY-P
Connector cable for remote display	PAC-SA88HA-E	All indoor units
and according to the state of t	PAR-31MAA	All indoor units
Wired remote controller	PAR-21MAA	All indoor units
Wireless remote controller kit Sender & Receiver)	PAR-SL94B-E	PCY-P
Multiple remote controller adaptor	PAC-725AD	All indoor units
Air discharge quide	MAC-881SG	SUY-KA18
Air discharge guide	MAC-886SG-E	SUY-KA24/30/36
Distribution pipe	MSDD-50TR-E	PUY-P48
laint nine	PAC-SG73RJ-E	PUY-P42/48
Joint pipe	PAC-SG75RJ-E	PUY-P42/48
Filter dryer for liquid pipe	PAC-SG82DR-E	PUY-P42/48
Air outlet guide	PAC-SH96SG-E	PUY-P42/48
Air protection guide	PAC-SH95AG-E	PUY-P42/48
Drain socket	PAC-SG61DS-E	PUY-P42/48
Centralized drain pan	PAC-SH97DP-E	PUY-P42/48
M-Net converter	PAC-SF83MA-E	PUY-P42/48
Control/Service tool	PAC-SK52ST	PUY-P42/48
External/Input adapter	PAC-SC36NA-E	PUY-P42/48

▲ Notice

- Do not install indoor units in areas where the emission of VOCs such as phthalate compounds and formaldehyde is known to be high (e.g., mobile phone base stations) as this may result in a chemical reaction.
- When installing, relocating or servicing air conditioners, use only the specified refrigerant (R410A) to charge the refrigerant lines. Do not mix R410A with any other refrigerant and do not allow air to remain in the lines. If air is mixed with the refrigerant, this may cause abnormal high pressure in the refrigerant lines and possibly result in an explosion

The use of any refrigerant other than that specified for the system will cause mechanical failure, system malfunction or unit breakdown. In the worst case, it could lead to a serious impediment to securing product safety.

Main Optional Parts

Part name	Description
High-efficiency Filter Element Element for high-efficiency filter. Removes fine dust particles from the air.	Plug (for directing airflow) High-afficiency filter element
i-see Sensor Corner Panel Corner panel holding the i-see Sensor.	i-see Sensor corner panel
Shuttle Plate Plate for blocking an air outlet of the 4-way cassette indoor unit.	Shuttle Plate
Multi-functional Casement Casement for fresh-air intake and attaching the high-efficiency filter element (optional).	Indoor unit body Multi-functional casement
Fresh-air Intake Duct Flange Flange attachment for adding a duct to take in fresh air from outside.	*For 4-way cassette units
Space Panel Decorative cover for installation when the ceiling height is low.	Space Panel Panel
Drain Pump Pumps drain water to a point higher than that where the unit is installed.	Tor ceiling-suspended units
Wired Remote Controller Advanced deluxe remote controller with full-dot liquid-crystal display and backlight. Equipped with convenient functions like night-setback.	A####################################
Wireless Remote Controller Kit (Sender & Receiver) Handheld remote controller (signal sender) and receiver (signal receiver) for ceiling-suspended units.	Signal receiver
Remote Sensor Sensor to detect the room temperature at remote positions.	Remote sensor

Part name	Description
Remote On/Off Adapter Connector for receiving signals from the local system to control the on/off function.	Remote on/off adapter
Remote Operation Adapter Adapter to display the operation status and control the on/off function from a distance.	Remote operation adapter
Connector Cable for Remote Display Connector used to display the operation status and control the on/off function from a distance.	Connector cable for remote display Brown Red Green Connector cable for remote display Brown Red Green
Joint Pipe Part for connecting refrigerant pipes of different diameters.	Indoor unit Joint pipe Onsite pipe Onsite pipe Outdoor unit Insulator
Air Discharge Guide Changes the direction of air being exhausted from the outdoor unit.	
Air Protection Guide Protects the outdoor unit from the wind.	
Drain Socket A set of caps to cover unnecessary holes at the bottom of the outdoor unit, and a socket to guide drain water to the local drain pipe.	Cap
Centralised Drain Pan Catches drain water generated by the outdoor unit.	Outdoor unit Centralised drain pan Base (local construction)
M-NET Converter Used to connect P Series A-control models to M-NET controllers.	Croup remote controller Converter Peeer supply unit for barrant cable
Control/Service Tool Monitoring tool to display operation and self-diagnosis data.	





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