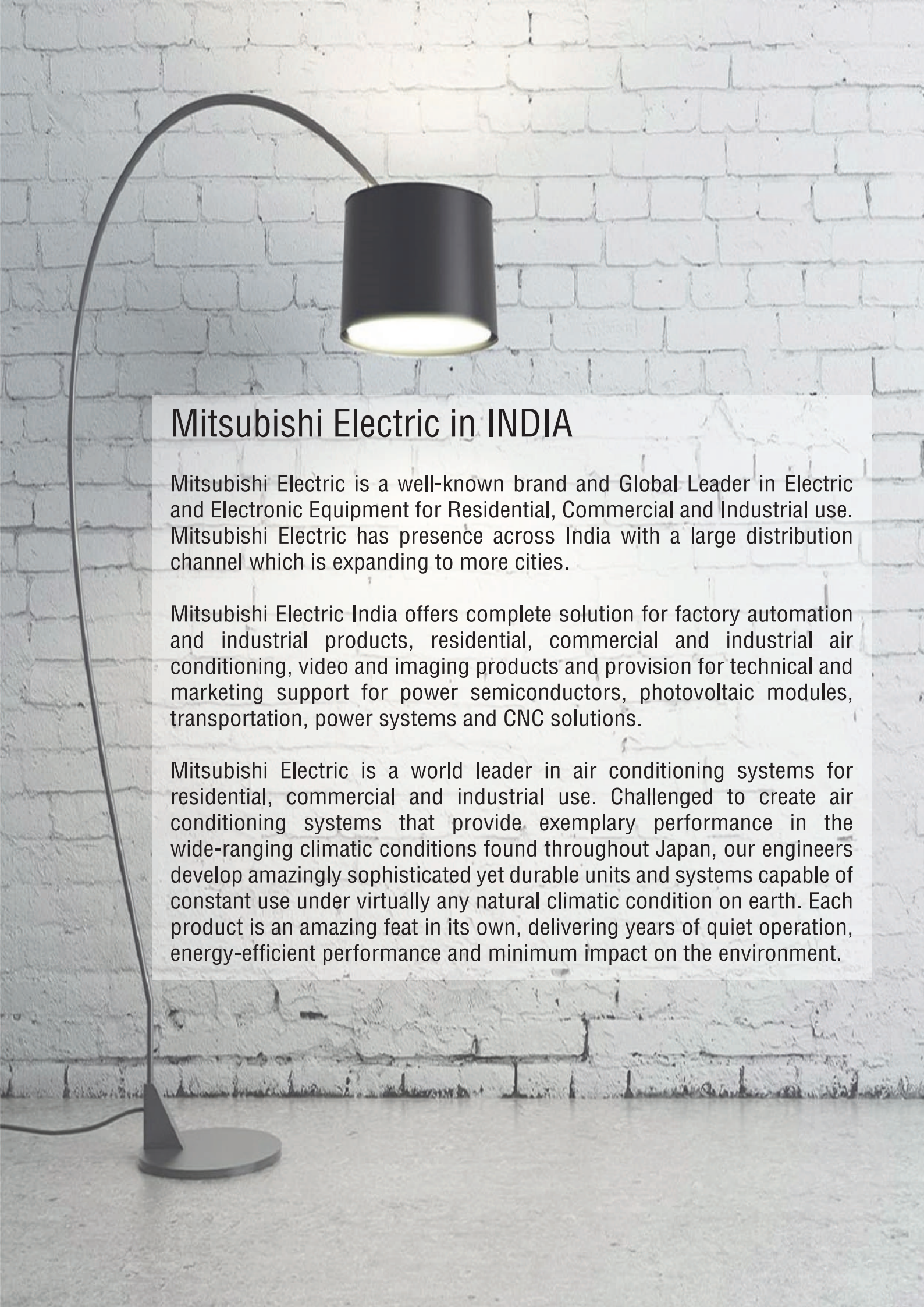
MITSUBISHI ELECTRIC

AIR CONDITIONERS

Changes for the Better

SEMI-COMMERCIAL RANGE OF PACKAGED AIR CONDITIONERS



Mitsubishi Electric in INDIA

Mitsubishi Electric is a well-known brand and Global Leader in Electric and Electronic Equipment for Residential, Commercial and Industrial use. Mitsubishi Electric has presence across India with a large distribution channel which is expanding to more cities.

Mitsubishi Electric India offers complete solution for factory automation and industrial products, residential, commercial and industrial air conditioning, video and imaging products and provision for technical and marketing support for power semiconductors, photovoltaic modules, transportation, power systems and CNC solutions.

Mitsubishi Electric is a world leader in air conditioning systems for residential, commercial and industrial use. Challenged to create air conditioning systems that provide exemplary performance in the wide-ranging climatic conditions found throughout Japan, our engineers develop amazingly sophisticated yet durable units and systems capable of constant use under virtually any natural climatic condition on earth. Each product is an amazing feat in its own, delivering years of quiet operation, energy-efficient performance and minimum impact on the environment.

MITSUBISHI ELECTRIC

Semi-Commercial Range of Packaged Air Conditioners(PAC)

MITSUBISHI ELECTRIC

AIR CONDITIONERS

Changes for the Better

Inverter Series

Mr.SLIM

R410A

52°C

Beat the Heat even at
High Temperatures

MORE STARS MORE SAVINGS
POWER SAVINGS GUIDE

MORE STARS MORE SAVINGS
POWER SAVINGS GUIDE

SAVE R410A OZONE

Leading the world in every field with advanced technological prowess and assured quality

Technologies are forever changing society and the way people live. Applying innovative ideas and advanced technological prowess, Mitsubishi Electric delivers various products and services that improve daily life and the social infrastructure. From residential-use products to those for commercial- and industrial-use, semiconductors, social infrastructure systems, and products and services for the development of outer space, we have not only led in Japan, but throughout the world. We maintained our commitment to the pursuit of better technologies and higher quality throughout a history nearly 100 years long. Our detailed craftsmanship in all products has resulted in global recognition as a reliable brand. Not only with advanced air conditioning products and systems, but also superior product development power, Mitsubishi Electric will continue to support lifestyles and society for generations to come.

1921
Mitsubishi Electric is branched off from Mitsubishi Corporation as a separate identity

1928
E52, the first large-scale electric locomotive produced in Japan

1935
Commencement of elevator & escalator production

1953
Launched first commercial television

1964
Produced radar equipment for the weather station atop Mt. Fuji

1980
Debut of Diamond Vision display at Dodger Stadium in the United States

Air conditioner product history

1954
Room air conditioners production started.

1967
Introduced Japan's first wall-mounted split-type air conditioners.

1968
Introduced Japan's first ceiling-suspended, split-type air conditioners.

1978
Introduced Mr. Slim air conditioners for commercial use.

1984
Introduced inverter air conditioners with wireless remote control and automatic vane.

1990

Launched world's first commercial car navigation system incorporating GPS

2000

Adopted MISTY* technology as encryption standard for 3rd-generation mobile phones

2007

Completed 173-metre-tall elevator testing tower (world's tallest at the time)

2008

Launched SUPERBIRD-C2, Japan's first domestically produced commercial satellite

2011

Debut of Hayabusa Series E5, holder of the Japanese speed record for a train

2014

Unveiled world's largest full ultra-HD video display* in Times Square, New York City

*As of Nov. 18, 2014 (based on total area)

1993

Accumulated room air conditioners production of 10 million units.

1994

Introduced i-see Sensor (built-in sensor). First in industry to develop a sensor that detects the location of people.

2008

Solved the problem of wide spaces with the release of the 3D i-see Sensor.

3D i-see Sensor

Mr.SLIM PRODUCT LINE-UP

	18,000 BTU/h	24,000 BTU/h	30,000 BTU/h	36,000 BTU/h
 **Ceiling-cassette** (PLY-SP-EA SERIES)	 PLY-SP18EA	 PLY-SP24EA	 PLY-	 PLY-SP36EA
(PLY-SP-BA SERIES)	 PLY-SP18BA	 PLY-SP24BA	 PLY-SP30BA	 PLY-SP36BA
 **Ceiling-concealed** (PEY-SP SERIES)	 PEY-SP18JA(L)2	 PEY-SP24JA(L)2	 PEY-SP30JA(L)2	 PEY-SP36JA(L)2
 **Floor-standing** (PSY-SP SERIES)			 PSY-SP30KA	 PSY-SP36KA
Outdoor Unit	 SUY-SA18VA2 SUY-SA18VA*	 SUY-SA24VA2 SUY-SA24VA*	 SUY-SA30VA2 SUY-SA30VA*	 PUY-SP36YKA2 PUY-SP36YKA*

*Applicable for PLY-SP-BA models

		42,000 BTU/h	48,000 BTU/h	Remote Controller	Contents
	**Ceiling-cassette** (PLY-SP-EA SERIES)	 PLY-SP42EA	 PLY-SP48EA	 PAR-SL100A-E For details of panel and controller, please refer to P.17	**P. 15-23**
	(PLY-SP-BA SERIES)	 PLY-SP42BA	 PLY-SP48BA	 PAR-SL97A-E	
	**Ceiling-concealed** (PEY-SP SERIES)	 PEY-SP42JA(L)2	 PEY-SP48JA(L)2	 PEY-SP.JA2 .....wired remote controller PEY-SP.JAL2 ... wireless remote controller	**P. 24-25**
	**Floor-standing** (PSY-SP SERIES)	 PSY-SP42KA	 PSY-SP48KA	 Built-in controller	**P. 26-27**
Outdoor Unit		 PUY-SP42YKA2 PUY-SP42YKA*	 PUY-SP48YKA2 PUY-SP48YKA*		

*Applicable for PLY-SP-BA models

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.

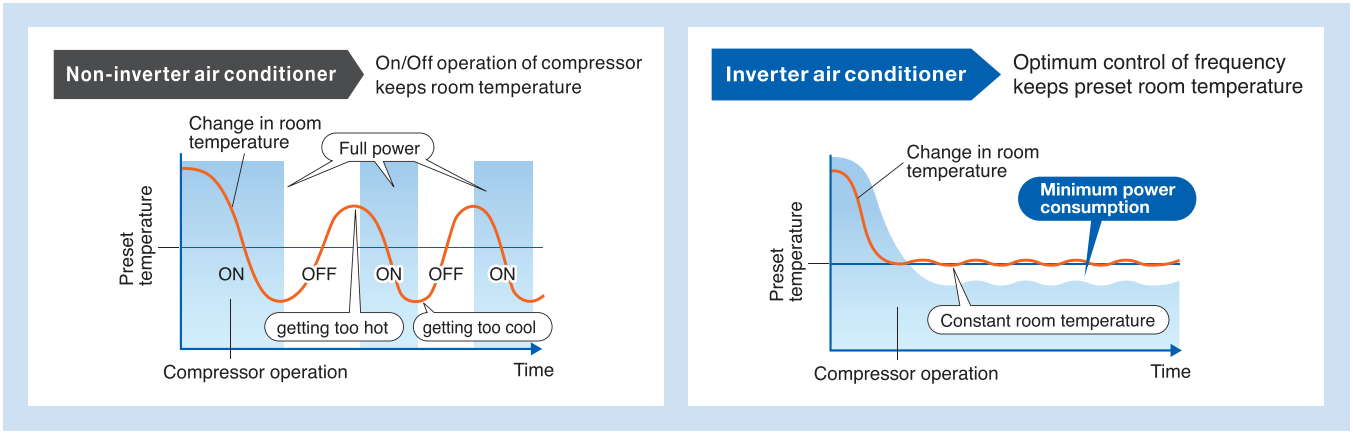
ECONOMIC OPERATION

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.

R410A 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 ozone depletion potential (ODP). Accordingly, our systems require less energy to run and have significantly lower indirect global warming potential. In short, we produce the most efficient equipment possible, while helping to protect the environment.

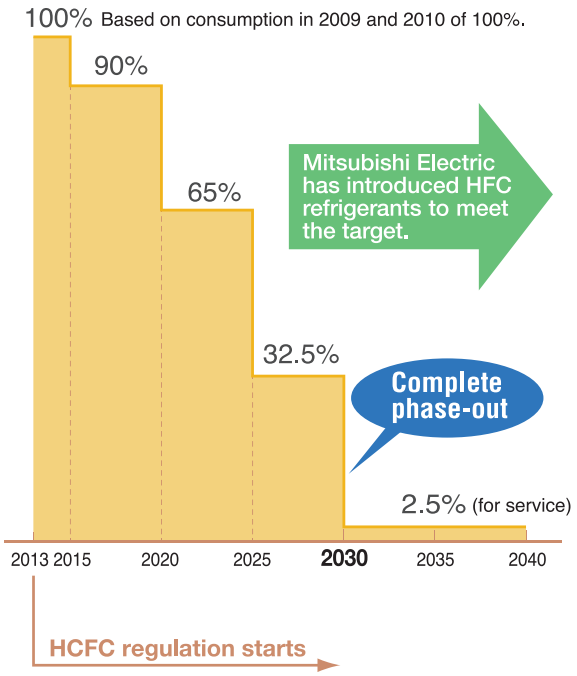
The Montreal Protocol calls for the complete abolishment of HCFC refrigerant consumption in Article 5 countries (such as R22) by the year 2030.

Mitsubishi Electric is committed to shifting over to HFC models from HCFC models.

Montreal Protocol

Montreal Protocol regulates HCFCs

HCFC consumption in Article 5 countries will be regulated from 2013.



MITSUBISHI ELECTRIC Compressor

The compressor is the heart of the air conditioner. Employing MITSUBISHI ELECTRIC's proprietary technology, we are able to achieve both high efficiency and high power.

Poki-Poki Motor

Dramatically enhanced motor efficiency utilising original dense winding technology. 28% more wire on compared to conventional motor

Heat Caulking

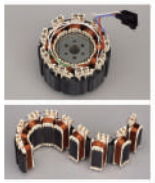
Original heat caulking method minimizes cylinder distortion for even greater efficiency.

FUNCTIONS & TECHNOLOGIES

Category		Icon			P-Series							
			Combination	Indoor unit	PLY-SP18/24/30/36/42/48EA		PLY-SP-BA18/24/30/36/42/48BA		PEY-SP18/24/30/36/42/48JA(L)2		PSY-SP30/36/42/48KA	
				Outdoor unit	SUY-SA18/ 24/30VA2	PUY-SP36/ 42/48YKA2	SUY-SA18/ 24/30VA	PUY-SP 36/42/48YKA	SUY-SA18/ 24/30VA2	PUY-SP36/ 42/48YKA2	SUY-SA30VA2	PUY-SP36/ 42/48YKA2
Technology		DC Inverter			●	●	●	●	●	●	●	●
		Joint Lap DC Motor			●		●		●		●	
		Magnetic Flux Vector Sine Wave Drive				●		●		●		●
		Heating Caulking (Compressor)			●		●		●		●	
		DC Fan Motor			●	●	●	●	●	●	●	●
		Vector-Wave Eco Inverter				●		●		●		●
		Pulse Amplitude Modulation (PAM)			●	●	●	●	●	●	●	●
		Grooved Piping			●	●	●	●	●	●	●	●
Functions	Energy Saving	3D i-see sensor			Opt	Opt						
		Area Temperature Monitor					Opt	Opt				
		Demand Function				Opt		Opt		Opt		Opt
	Air Quality	High-efficiency Filter			Opt	Opt	Opt	Opt				
		Long-life Filter			●	●	●	●			●	●
		Filter Check Signal			●	●	●	●	●	●	●	●
	Air Distribution	Auto Vane			●	●	●	●			●	●
		Horizontal Vane			●	●	●	●			●	●
		Vertical Vane									●	●
		High Ceiling Mode			●	●	●	●				
		Low Ceiling Mode			●	●	●	●				
		Auto Fan Speed Mode			●	●	●	●			●	●
		Direct/Indirect Airflow (for Each Vane)			Opt	Opt						
	Convenience	On/Off Operation Timer			●	●	●	●	●	●	●	●
		Auto Restart			●	●	●	●	●	●	●	●
		Low-noise Operation (outdoor unit)				●		●		●		●
		Rotation, Back-up and 2nd Stage Cut-in Functions				Opt				Opt		
	System Control	PAR-32MAA Control			Opt	Opt			Opt	Opt		
		Centralised On/Off Control			Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt
		System Group Control			Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt
		M-NET Connection			Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt
	Installation	Cleaning-free Pipe Reuse			●*	●	●*	●	●*	●	●*	●
		Reuse of Existing Wiring				Opt		Opt		Opt		Opt
		Drain Pump			●	●	●	●	Opt	Opt		
		Pump Down Switch				●		●		●		●
		Flare Connection			●	●	●	●	●	●	●	●
	Maintenance	Self-Diagnotic Function (Check Code Display)			●	●	●	●	●	●	●	●
		Failure Recall Function			●	●	●	●	●	●	●	●

• Opt: Separate parts must be purchased.
*Not available for different diameter joints.

Joint Lap DC Motor



Mitsubishi Electric has developed a unique motor, called the "Poki-Poki Motor" in Japan, 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.

Magnetic Flux Vector Sine Wave Drive

This drive device is actually a microprocessor that converts the compressor motor's electrical current waveform from a conventional waveform to a sine wave (180°conductance) to achieve higher efficiency by raising the motor winding utilisation ratio and reducing energy loss.

Heat Caulking Fixing Method

To fix internal parts in place, a "Heat Caulking Fixing Method" is used, replacing the former arc spot welding method. Distortion of internal parts is reduced, realising higher efficiency.

DC Fan Motor

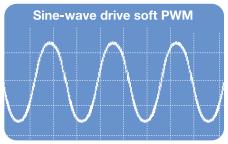
A highly efficient DC motor drives the fan of the outdoor unit. Efficiency is much higher than an equivalent AC motor.

Vector-Wave Eco Inverter

This inverter monitors the varying compressor motor frequency and creates the most efficient waveform for the motor speed. As the result, operating efficiency in all speed ranges is improved, less power is used and annual electricity cost is reduced.

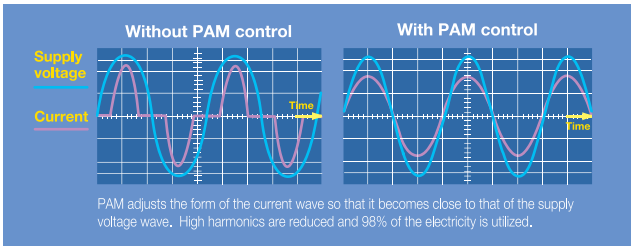
Smooth wave pattern

Inverter size has been reduced using insert-molding, where the circuit pattern is molded into the synthetic resin. To ensure quiet operation, soft PWM control is used to prevent the metallic whine associated with conventional inverters.

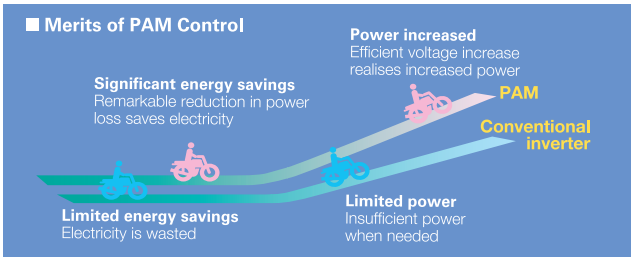


PAM (Pulse Amplitude Modulation)

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.

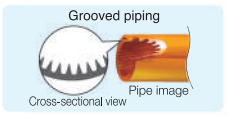


PAM adjusts the form of the current wave so that it becomes close to that of the supply voltage wave. High harmonics are reduced and 98% of the electricity is utilized.



Grooved Piping

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



Pure White

Pure white is adopted for the unit colour; white expressing the essence of cleanliness and easily matching virtually all interior décor.

Horizontal Vane

The air outlet vane swings up and down so that the airflow is spread evenly throughout the room.

Vertical Vane*

*Condition apply

The air outlet fin swings from side to side so that the airflow reaches every part of the room.

On/Off Operation Timer

Use the remote controller to set the times of turning the air- conditioner On/Off.

Auto Restart

Especially useful at the time of power outages, the unit turns back on automatically when power is restored.

Demand Function (Onsite Adjustment)

The demand function can be activated when the unit is equipped with a commercially available timer or an On/Off switch is added to the CNDM connector (option) on the control board of the outdoor unit. Energy consumption can be reduced up to 100% of the normal consumption according to the signal input from outside.

[Example: PUY Series]
Limit energy consumption by changing the settings of SW7-1, SW2 and SW3 on the control board of the outdoor unit. The following settings are possible.

SW7-1	SW2	SW3	Energy consumption
ON	OFF	OFF	100%
	ON	OFF	75%
	ON	ON	50%
	OFF	ON	0% (Stop)

*PUY outdoor only

Long-life Filter

A special process for the entrapment surface improves the filtering effect, making the maintenance cycle longer than that of units equipped with conventional filters.

Filter Check Signal

Air conditioner operating time is monitored, and the user is notified when filter maintenance is necessary.

High Ceiling Mode

In the case of rooms with high ceilings, the outlet-air volume can be increased to ensure that air is circulated all the way to the floor.

Low Ceiling Mode

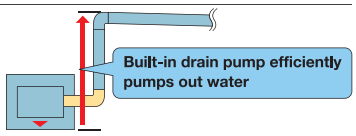
If the room has a low ceiling, the airflow volume can be reduced for less draft.

Auto Fan Speed Mode

The airflow speed mode adjusts the fan speed of the indoor unit automatically according to the present room conditions.

Drain Pump

A built-in drain pump enables drain piping to be raised.



Self-Diagnostic Function (Check Code Display)

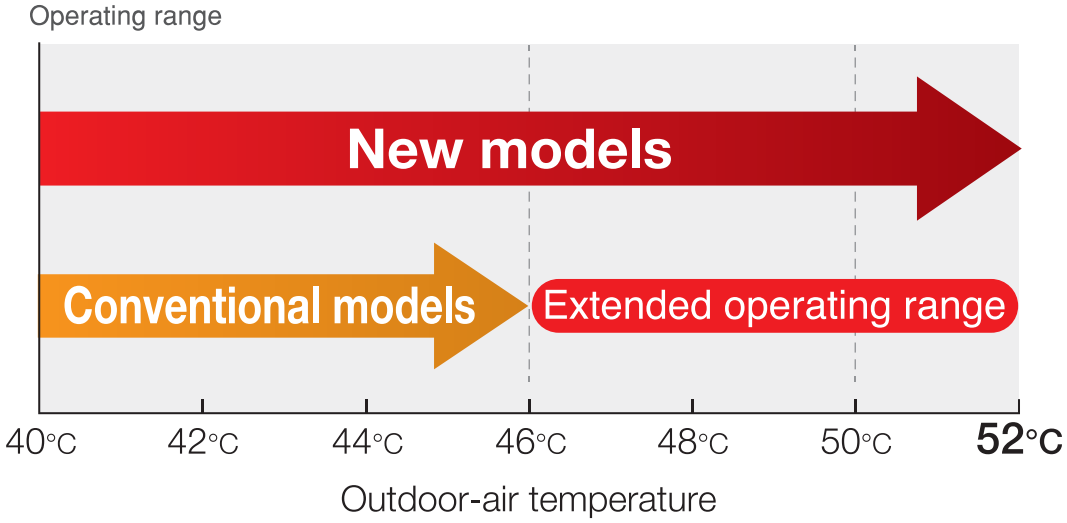
Check codes are displayed on the remote controller or the operation indicator to inform the user of malfunctions detected.

Failure Recall Function

Operation failures are recorded, allowing confirmation when needed.

MAJOR FEATURES

■ Operating at high temperatures (52°C)



New inverter technology

New inverter technology has made it possible for units to operate at outdoor-air temperatures as high as **52°C.** Tropical Specification series units are perfect for cooling homes and offices in tropical regions.

High dehumidifying capacity

Prevent the decrease of dehumidifying capacity even when the room temperature approaches the preset temperature since outdoor units detect and control evaporating temperature.

New R410A lineup

From low-capacity 18,000Btu to high-capacity 48,000Btu units available, the new models in the R410A Series have highest I SEER in industry compared with conventional non-inverter models. All models contribute to reducing energy consumption over a wide range of operating capacities.

4-way Ceiling-cassette

(PLY-SP-EA SERIES)

PLY-SP18/24/30/36/42/48EA

(3D i-see Sensor: optional)

5 Star

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, multi-functional indoor unit.

Beautiful square design

The beautiful design harmonizes with any interior, making it ideal for facilities such as offices and retail stores.

PLY-SP·BA PLY-SP·EA

"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.

3D Turbo Fan ~ Quiet operation

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

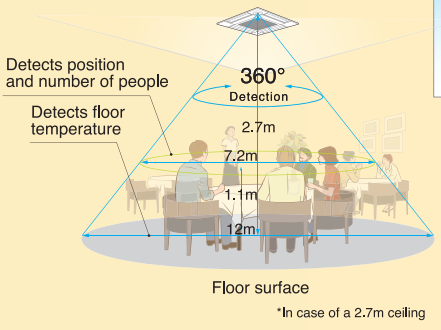
3 D turbo fan

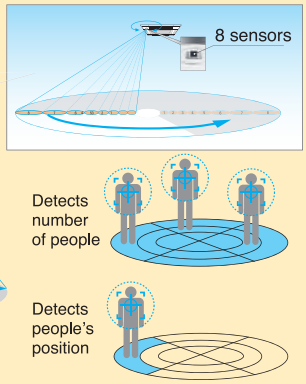
3D i-see Sensor (optional)

The "3D i-see Sensor" built into the optional corner panel eliminates uneven temperature distribution and reduces electricity consumption.

Highly accurate motion detection

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





"3D i-see Sensor" temperature-sensing technology improves energy efficiency and enhances room comfort

The "3D 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 "3D 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.

Detects number of people

Room occupancy energy-saving mode

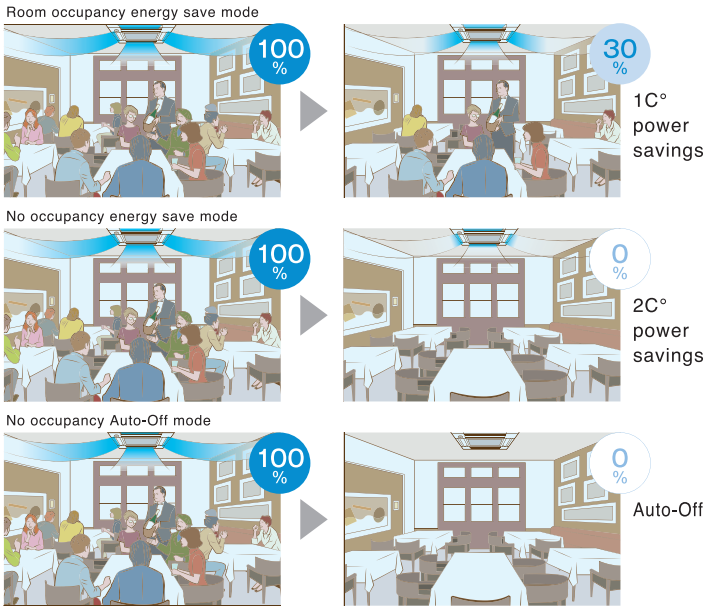
The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air-conditioning power. When the occupancy rate is approximately 30%, air-conditioning power equivalent to 1°C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

No occupancy energy-saving mode

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

No occupancy Auto-OFF mode

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



*PAR-32MAA is required for each setting
**% is room occupancy rate.

Detect people's position

Direct/Indirect settings*

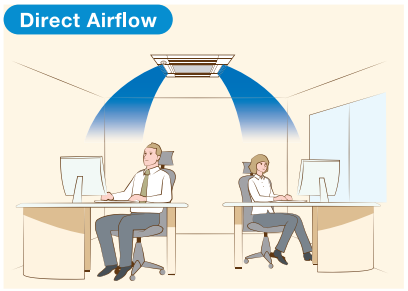
Some people do not like the feel of wind, some want to be warm from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, it is possible to choose to block or not block to the wind for each vane.

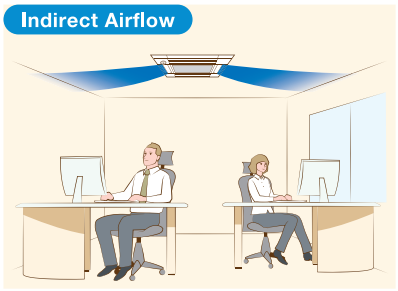
*PAR-32MAA or PAR-SL100A-E is required for each setting.

Direct (Downward)

Indirect (Horizontal)

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





*Only available for models equipped with 3D i-see Sensor.

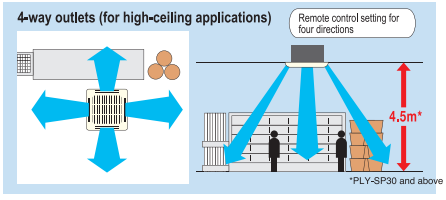
	Vane setting	
	Direct	Indirect
Cooling	horizontal → swing	keep horizontal

Vane Control Applications

For Shopping Malls

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

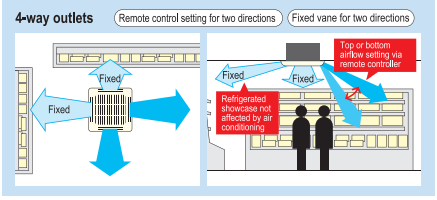
The unique airflow design of the powerful ceiling-cassette models reduces pressure loss and provides wide cool-air coverage from high ceilings to the floor even in expansive spaces like shopping malls with ceilings over 4 metres in height.



For Retail Outlets (e.g. grocery stores)

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

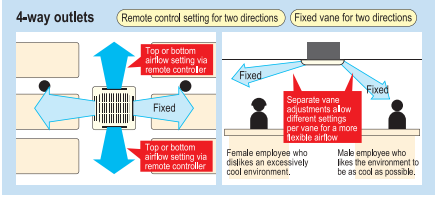
Individual vane angle adjustment enables precise airflow control to specific areas of the store to reduce unnecessary air conditioning of areas such as refrigerated showcases.



For Offices

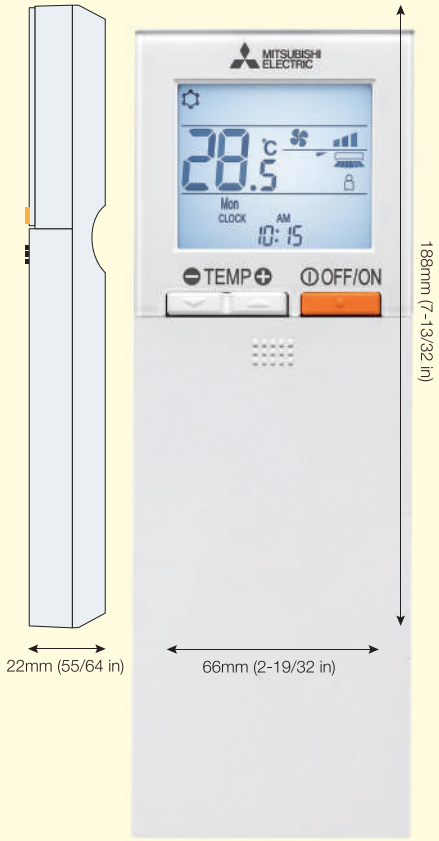
Flexible and pleasant airflow eliminates annoying drafts within the office environment.

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



Remote controller for PLY-SP-EA

Wireless Remote Controller
PAR-SL100A-E



Features (PAR-SL100A-E)

3D i-see Sensor (Optional)

(Direct/Indirect Airflow)

Pressing the i-see button enables direct or indirect setting of all vanes.

Direct

Indirect

Weekly Timer

The Weekly Timer enables the setting of operation start and stop times and adjusting the temperature as standard features.

Backlight

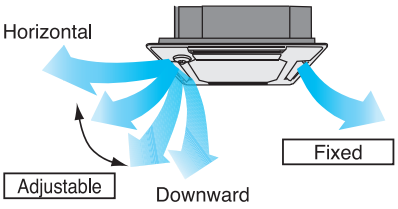
Backlight function incorporated, making screen easy to read in the dark. Even in dimly lit rooms, the screen can be seen clearly for trouble-free remote controller operation.

Battery Replacement Indicator

Previous wireless remote controllers were not able to check when the battery was low. Beginning with the PAR-SL100A-E, a battery charge indicator that shows the charge status is included in the LCD so it can be seen when the battery is low and needs to be changed.

Individual Vane Settings

The airflow directions of the four vanes can each be adjusted independently. Easily set the optimum airflow according to the room setting.



Note : PAR-SL100A-E can be used with only PLY-SP-EA series.

Panel and remote controller

Part model name	Description	Included parts						
		Standard panel	Wireless signal receiver	3D i-see sensor	Wired controller (PAR-21MAA)	Wired controller (PAR-32MAA)	Wireless controller (PAR-SL97A-E)	Wireless controller (PAR-SL100A-E)
PLP-6EA	Standard panel only	✔						
PLP-6EALCM	Panel with receiver and wireless remote controller (SL97)	✔	✔				✔	
PLP-6EALM	Panel with receiver and wireless remote controller (SL100)	✔	✔					✔
PAC-SE1ME-E	3D i-see sensor corner panel			✔				
PAR-SE9FA-E	Wireless signal receiver only		✔					
PAR-SL97A-E	Wireless remote controller only						✔	
PAR-SL100A-E	Wireless remote controller only							✔
PAR-21MAA	Wired remote controller only				✔			
PAR-32MAA	Wired remote controller only					✔		

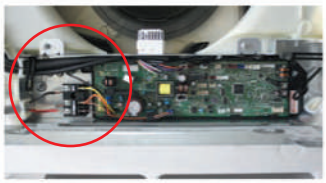
Easy Installation and Maintainance

Electrical box wiring

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

■ Previous model (B Series)

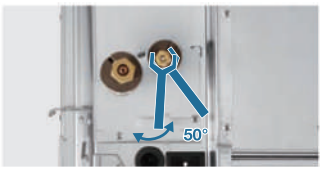
■ New model (E Series)



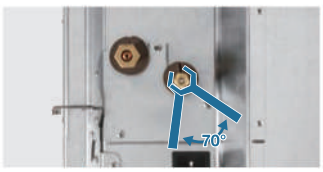
Increased space for plumbing work

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

■ Previous model (B Series)



■ New model (E Series)



Temporary hanging hook

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

No need to remove screws

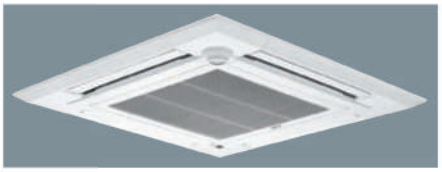
Installation is possible without removing the screws for the corner panel and the control box, simply loosen them. This lowers the risk of losing screws.

■ Corner panel

■ Control box cover

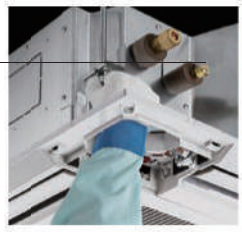
Lightweight decorative panel

After reviewing the structure and materials, weight has been reduced approximately 20% compared to the previous model, reducing the burden of installation.



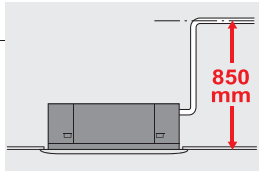
Handy Corner Pocket Design Simplifies Maintenance

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.



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.



Bacteria-resistant Filters

Mitsubishi Electric filters are bacteria-resistant and designed for fresh and pleasant air conditioning at all times.

Features at a glance

Installation & Maintenance	Comfort	Others
• Chargeless system	• 3D i-see Sensor	• System control
• Compact design	• Auto fan speed	• Auto vane shutter
• Drain water lifting (850mm)	• Wide vane	• Auto restart
• Handy corner pocket	• Smudge/draft-free	• Outdoor unit max. operating temp. of 52°C
• Long-life filter (2500hr)*	• High-ceiling application	
• Self-diagnostic function	• Computerized dehumidifier	
• Filter indicator (for wired remote controller)	• Quiet operation	
	• Bacteria-and mold-resistant filter	
• Flockless vanes		

*May vary according to operating conditions.

SPECIFICATIONS

4-way Ceiling Cassette (50Hz)

PLY-SP-EA Series

Models				PLY-SP18EA	PLY-SP24EA	PLY-SP30EA	PLY-SP36EA	PLY-SP42EA	PLY-SP48EA
Cooling capacity (Min-Max)			kW	5.3 (2.8-5.3)	7.1 (2.9-7.1)	8.8 (4.1-8.8)	10.6 (4.0-10.6)	12.3 (6.1-12.3)	14.1 (7.0-14.1)
Cooling capacity			BTU/h	18,000	24,000	30,000	36,000	42,000	48,000
Total input			kW	1.60	2.17	2.48	3.52	4.30	6.02
EER			W/W	3.31	3.27	3.54	3.01	2.86	2.34
ISEER			W/W	4.50	4.50	4.50	4.30	3.92	3.54
	Model name			PLY-SP18EA	PLY-SP24EA	PLY-SP30EA	PLY-SP36EA	PLY-SP42EA	PLY-SP48EA
Indoor unit	Power supply			1ph 220-240V 50Hz			1ph 220-240V 50Hz	1ph 220-240V 50Hz	1ph 220-240V 50Hz
	External finish			Munsell 1.0Y 0.2/9.2			Munsell 1.0Y 0.2/9.2	Munsell 1.0Y 0.2/9.2	Munsell 1.0
	Airflow (low-med2-med1-high)		CMM	16-17-19-21	16-18-21-23	19-23-26-29	21-25-28-31	21-25-28-32	24-26-29-32
			CFM	565-600-670-740	565-635-740-810	670-810-920-1025	740-885-990-1095	740-885-990-1130	850-920-1025-1130
	External static pressure		Pa	0 (direct blow)			0 (direct blow)	0 (direct blow)	0 (direct blow)
	Opearation control and thermostat			Remote-controll & Built-in			Remote-controll & Built-in	Remote-controll & Built-in	
	Noise level (low-med2-med1-high)		dB (A)	28-30-32-35	28-31-34-37	31-34-37-41	32-37-41-43	32-37-41-44	36-39-42-44
	Unit drain pipe (outer diameter)		mm	32			32	32	32
	Dimensions (panel)	W	mm	840 (950)			840 (950)	840 (950)	840 (950)
		D	mm	840 (950)			840 (950)	840 (950)	840 (950)
		H	mm	258 (40)		298 (40)	298 (40)	298 (40)	298 (40)
	Weight (panel)		kg	21 (5)		24 (5)	27 (5)	27 (5)	27 (5)
Outdoor unit	Model name			SUY-SA18VA2	SUY-SA24VA2	SUY-SA30VA2	PUY-SP36YKA2	PUY-SP42YKA2	PUY-SP48YKA2
	Power supply			1ph 220-240V 50Hz			3ph 380-415V 50Hz	3ph 380-415V 50Hz	3ph 380-415V 50Hz
	External finish			Munsell 3.0Y 7.8/1.1			Munsell 3.0Y 7.8/1.1	Munsell 3.0Y 7.8/1.1	Munsell 3.0Y 7.8/1.1
	Refrigerant (R410A) control			Linear expansion valve			Linear expansion valve	Linear expansion valve	Linear expansion valve
	Airflow		CMM	27	46	51	75	75	87
			CFM	953	1625	1800	2648	2648	3071
	Noise level		dB (A)	47	52	54	52	53	56
	Dimensions	W	mm	800	840		1050	1050	1050
		D	mm	285	330		330	330	330
		H	mm	550	880		981	981	981
	Weight		kg	32	49	50	65	73	73
	Max. height difference		m	12	15	15	30	30	30
	Max. piping length		m	20	30	30	50	50	50
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.7	Liquid: 9.52 Gas: 15.88		Liquid: 9.52 Gas: 15.88	Liquid: 9.52 Gas: 15.88	Liquid: 9.52 Gas: 15.88
Guaranteed Opearating Range		Upper limit (DB)		52			52	52	52
		Lower limit (DB)		18			18	18	18
BEE Star Rating							—	—	—

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

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

4-way Ceiling-cassette

(PLY-SP-BA SERIES)

(i-see Sensor: optional)

PLY-SP18/24/30/36/42/48BA

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, multi-functional indoor unit.

Wide Airflow

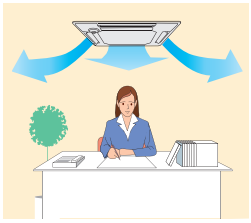
Wide-angle outlets distribute airflow to all corners of the room, ensuring the room is sufficiently cooled/heated. Horizontal airflow and a fan speed reduced by 20% compared to conventional models also contribute to increased comfort for occupants.

Conventional model

PLY-SP**BA

Less Cold Draft

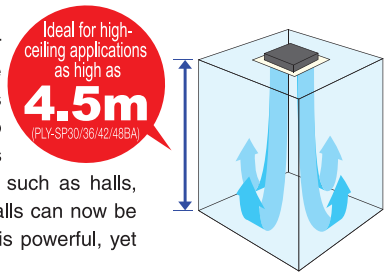
The horizontal airflow function prevents cold drafts from striking the body directly, thereby keepig the body at an appropate temprature.



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 4.5m in height. The demands of high-ceiling applications such as halls, showrooms or shopping malls can now be fully answered thanks to this powerful, yet highly efficient airflow.



n **Specification according to ceiling height** (Unit: m)

	PLY-SP18/24BA			PLY-SP30/36/42/48BA		
	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 Mitsubishi Electric dealership since there is some risk of condensation.

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.

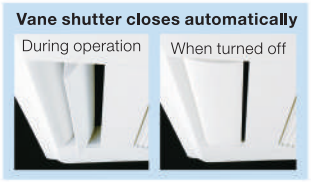
Low ➡ Medium 2 ➡ Medium 1 ➡ High ➡ Automatic air-speed adjustment

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

Automatic Vane Shutter*

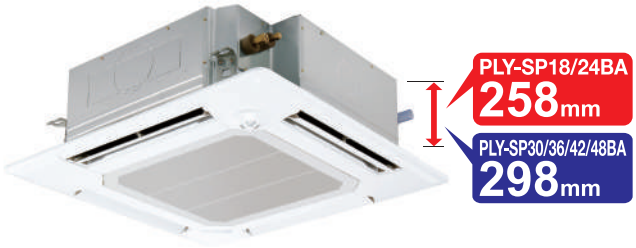
When the air conditioner is not operating, the vane shutter closes automatically to conceal the air outlet and create an aesthetically appealing flat surface.

*This feature will not activate when the vane is set at a fixed position.



Unit Height of Only 258mm (PLY-SP18/24BA)

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 high-capacity flow fan contribute to the realisation of quieter operation.

Power flow fan

Other Features

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

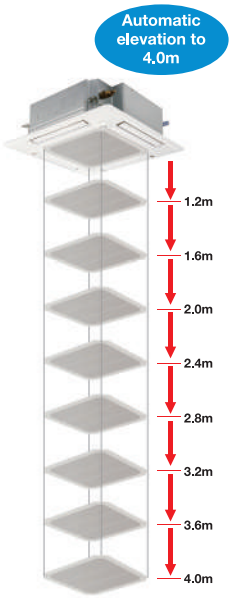
Auto-up-down Grille Function (Optional)

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) controller

(comes with the automatic elevation panel)

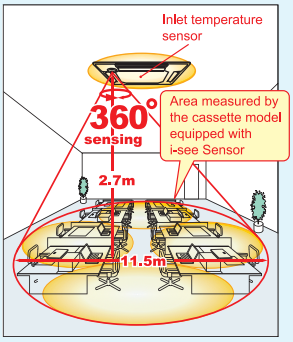


i-see Sensor

(optional corner panel)

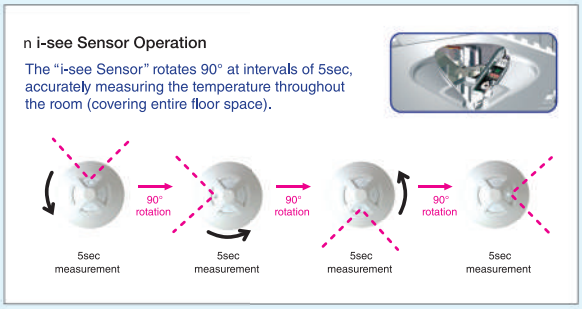
The "i-see Sensor" built into the optional corner panel eliminates uneven temperature distribution and reduces electricity consumption.

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.

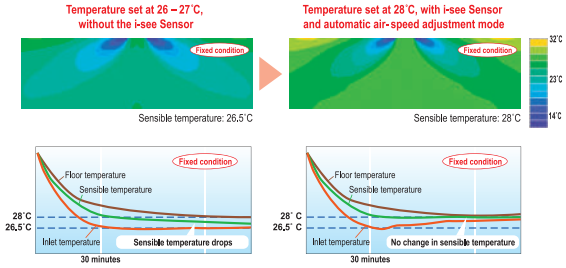


Sensible temperature control prevents excessive cooling through pioneering control technology

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.

"i-see Sensor" automatically controls over-cooling by detecting the optimum temperatures

Example When you want a sensible temperature of 28°C.



The sensible temperature drops according to the drop in floor-level temperature. If the floor-level temperature is not monitored during long cooling operation, the sensible temperature becomes chilly.

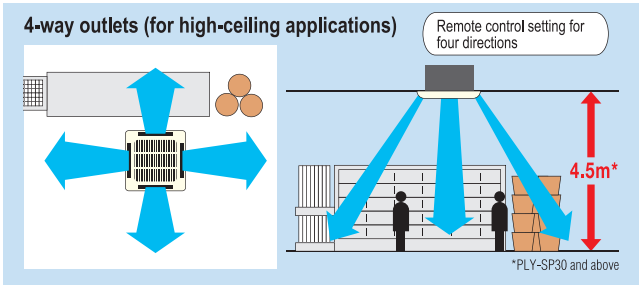
Air temperature is adjusted according to the floor temperature to keep the sensible temperature at 28°C.

Vane Control

For Shopping Malls

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

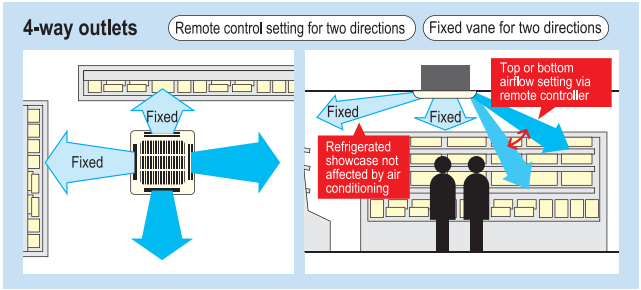
The unique airflow design of the powerful ceiling-cassette models reduces pressure loss and provides wide cool-air coverage from high ceilings to the floor even in expansive spaces like shopping malls with ceilings over 4 metres in height.



For Retail Outlets (e.g. grocery stores)

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

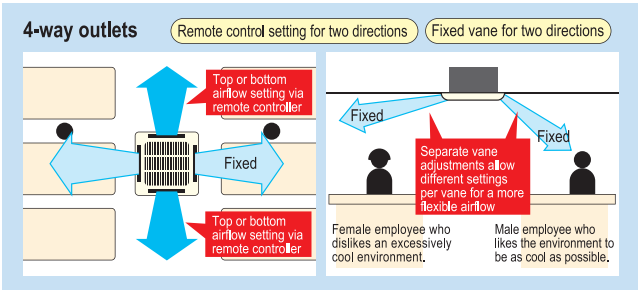
Individual vane angle adjustment enables precise airflow control to specific areas of the store to reduce unnecessary air conditioning of areas such as refrigerated showcases.



For Offices

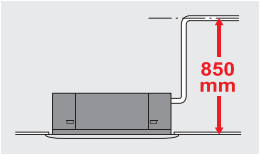
Flexible and pleasant airflow eliminates annoying drafts within the office environment.

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



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.

Features at a glance

Installation & Maintenance	Comfort	Others
• Chargeless system	• i-see Sensor	• System control
• Compact design	• Auto fan speed	• Auto vane shutter
• Drain water lifting (850mm)	• Wide vane	• Auto restart
• Handy corner pocket	• Smudge/draft-free	• Outdoor unit max.
• Long-life filter (2500hr)*	• High-ceiling application	operating temp. of 52°C
• Self-diagnostic function	• Computerized dehumidifier	
• Flockless vanes	• Quiet operation	
• Elevation grille	• Bacteria-and mold-resistant filter	

*May vary according to operating conditions.

SPECIFICATIONS

4-way Ceiling-Cassette (50Hz)

PLY-SP-BA SERIES

Models				PLY-SP18BA	PLY-SP24BA	PLY-SP30BA	PLY-SP36BA	PLY-SP42BA	PLY-SP48BA
Cooling capacity			kW	5.3	7.1	8.8	10.6	12.3	14.1
Cooling capacity			BTU/h	18,000	24,000	30,000	36,000	42,000	48,000
Total input			Rated kW	1.73	2.22	2.94	3.34	4.37	6.07
ISEER			W/W	4.23	4.3	4.25	4.28	3.82	3.47
Indoor unit	Power supply			1ph 220-240V 50Hz					
	External finish			Munsell 6.4Y 8.9/0.4					
	Airflow (low-Med2-Med1-high)		CFM	425-460-495-565	495-565-635-705	705-775-885-990	850-920-1025-1130		
	Operation control			Remote control					
	Noise level (low-med2-med1-high)		dB (A)	28-29-30-32	28-30-32-34	33-35-38-41	37-39-41-44		
	Unit drain pipe (outer diameter)		mm	32					
	Dimensions (panel)	W	mm	840 (950)					
		D	mm	840 (950)					
		H	mm	258 (35)		298 (35)			
	Weight (panel)		kg	19 (6)	22 (6)	24 (6)	26 (6)		
	Control wiring (Copper)		Sq.mm	3C x 1.5	3C x 1.5	3C x 1.5	3C x 1.5		
	Remote control cable size (copper)		Sq.mm	2C x 0.3	2C x 0.3	2C x 0.3	2C x 0.3		
Outdoor unit	Model name			SUY-SA18VA	SUY-SA24VA	SUY-SA30VA	PUY-SP36YKA	PUY-SP42YKA	PUY-SP48YKA
	Power supply			1ph 220-240V 50Hz			3ph 380-415V 50Hz		
	External finish			Munsell 3.0Y 7.8/1.1					
	Refrigerant (R410A) control			Linear expansion valve					
	Airflow (low-Med2-Med2-Med1-high)		CFM	953	1625		2648		3071
	Noise level		dB (A)	47	52	54	52	53	56
	Dimensions	W	mm	800	840		1050		
		D	mm	285	330		330		
		H	mm	550	880		981		
	Weight		kg	32	49	47	73		
	Max. height difference		m	12	15		30		
	Max. piping length		m	20	30		50		
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.7	Liquid: 9.52 Gas: 15.88		Liquid: 9.52 Gas: 15.88		
	Power Cable (Copper)		Sq.mm	3C x 2.0	3C x 2.5		5C x 1.5		
	ODU breaker size			16	20		16		
Guaranteed Operating Range			Upper limit (DB)	52					
			Lower limit (DB)	18					
BEE Star Rating							—	—	—

Ceiling-concealed

(PEY-SP SERIES)

PEY-SP18/24/30/36/42/48JA(L)2

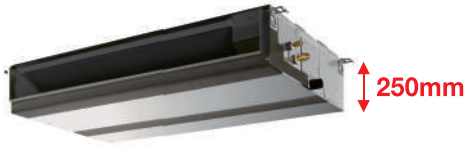
PEY-SP.JA2 ····· wired remote contoroller
PEY-SP.JAL2 ···· wireless remote contoroller

optional optional

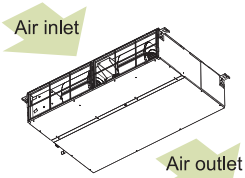
The thin, ceiling-concealed indoor units of the PEY series are the perfect answer for the air-conditioning requirements of buildings with minimum ceiling installation space and wide-ranging external static pressure. Energy-saving efficiency has been improved, thereby reducing electricity consumption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

Compact Indoor Units

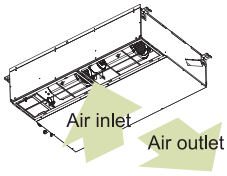
For all models, unit height is unified to 250mm. Compared to the previous model, height has been reduced, allowing installation in tight spaces such as ceiling cavities or drop-ceilings.



(1) Rear inlet



(2) Bottom inlet



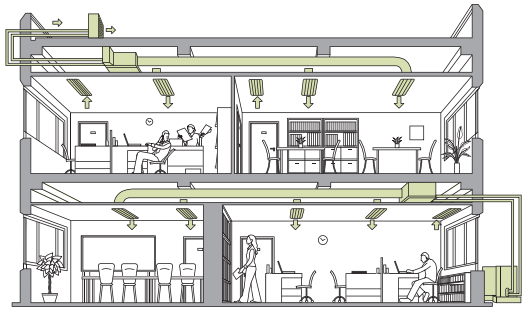
Wide Selection of Fan Speeds and External Static Pressure

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.

n **External static pressure setting**

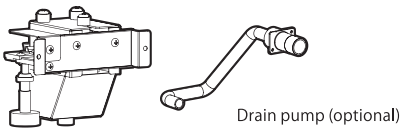
Series	18	24	30	36	42	48
PEY-SP·JA(L)2	**35/50/70/100/125Pa**					

n **Flexible duct design**



Features at a glance

Installation & Maintenance	Comfort	Others
• Chargeless system	• Computerized dehumidifier	• System control
• Smooth installation	• Quiet operation	• Auto restart
• Self-diagnostic function		• Outdoor unit max. operating temp. of 52°C
• Drain pump (optional)		



SPECIFICATIONS

Ceiling Concealed (50Hz)

PEY-SP SERIES

Models				PEY-SP18JA(L)2	PEY-SP24JA(L)2	PEY-SP30JA(L)2	PEY-SP36JA(L)2	PEY-SP42JA(L)2	PEY-SP48JA(L)2
Cooling capacity (Min-Max)			kW	5.3 (2.8-5.3)	7.1 (2.9-7.1)	8.8 (3.8-8.8)	10.6 (4.0-10.6)	12.3 (6.1 -12.3)	14.1 (7.0 -14.1)
Cooling capacity			BTU/h	18,000	24,000	30,000	36,000	42,000	48,000
Total input			kW	1.72	2.16	2.50	3.66	4.59	5.73
EER			W/W	3.08	3.28	3.52	2.90	2.67	2.46
Indoor unit	Model name			PEY-SP18JA(L)	PEY-SP24JA(L)	PEY-SP30JA(L)	PEY-SP36JA(L)	PEY-SP42JA(L)	PEY-SP48JA(L)
	Power supply			1ph 220-240V 50Hz			1ph 220-240V 50Hz	1ph 220-240V 50Hz	1ph 220-240V 50Hz
	External finish			Galvanized sheet	Galvanized sheet	Galvanized sheet	Galvanized sheet	Galvanized sheet	Galvanized sheet
	Airflow (low-mid-high)		CMM	12-14.5-17	17.5-21-25	24-29-34	29.5-35.5-42	29.5-35.5-42	29.5-35.5-42
			CFM	425-510-600	620-740-885	850-1025-1200	1040-1225-1485	1040-1225-1485	1040-1225-1485
	External static pressure		Pa	35-50-70-100-125			35-50-70-100-125	35-50-70-100-125	35-50-70-100-125
	Opearation control and thermostat			Remote control and Built-in			Remote control and Built-in	Remote control and Built-in	Remote control and Built-in
	Noise level (low-med-high)		dB (A)	30-35-39	30-34-39	33-38-42	36-40-44	36-40-44	36-40-44
	Unit drain pipe (outer diameter)		mm	32			32	32	32
	Dimensions	W	mm	900	1100	1400	1400	1400	1400
		D	mm	732	732	732	732	732	732
		H	mm	250	250	250	250	250	250
	Weight (panel)		kg	27	29	38	39	39	39
Outdoor unit	Model name			SUY-SA18VA2	SUY-SA24VA2	SUY-SA30VA2	PUY-SP36YKA2	PUY-SP42YKA2	PUY-SP48YKA2
	Power supply			1ph 220-240V 50Hz			3ph 380-415V 50Hz	3ph 380-415V 50Hz	3ph 380-415V 50Hz
	External finish			Munsell 3.0Y 7.8/1.1			Munsell 3.0Y 7.8/1.1	Munsell 3.0Y 7.8/1.1	Munsell 3.0Y 7.8/1.1
	Refrigerant (R410A) control			Linear expansion valve			Linear expansion valve	Linear expansion valve	Linear expansion valve
	Airflow		CMM	27	46	51	75	75	87
			CFM	953	1625	1800	2648	2648	3071
	Noise level		dB (A)	47	52	54	52	53	56
	Dimensions	W	mm	800	840		1050	1050	1050
		D	mm	285	330		330	330	330
		H	mm	550	880		981	981	981
	Weight		kg	32	49	50	65	73	73
	Max. height difference		m	12	15	15	30	30	30
	Max. piping length		m	20	30	30	50	50	50
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.7	Liquid: 9.52 Gas: 15.88		Liquid: 9.52 Gas: 15.88	Liquid: 9.52 Gas: 15.88	Liquid: 9.52 Gas: 15.88
Guaranteed Opearating Range		Upper limit (DB)		52			52	52	52
		Lower limit (DB)		18			18	18	18

- 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)

Floor-standing

(PSY SERIES)

PSY-SP30/36/42/48KA

POWER SAVINGS GUIDE
4 Star

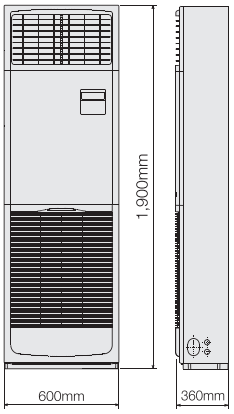
Built-in controller

Installation of this floor-standing series is easy and quick. An excellent choice when there is a sudden need for an air conditioner to be installed.

Quick and Easy Installation, Space-saving and Design That Compliments Any Interior

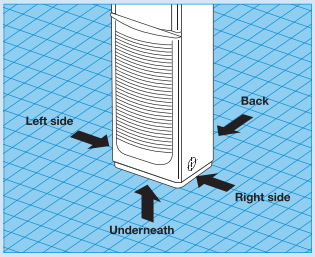
The floor-standing indoor unit is mounted on the floor, enabling quick installation. Its compact body requires only minimal space.

PSY-SP30/36/42/48KA



4-way pipe work connections enable greater freedom in installation

Remarkable freedom in choosing installation sites is allowed by providing piping connection to the indoor unit in four places: left side, back, from underneath and on the right side of the unit. Even installation in the corner of a room is easy.



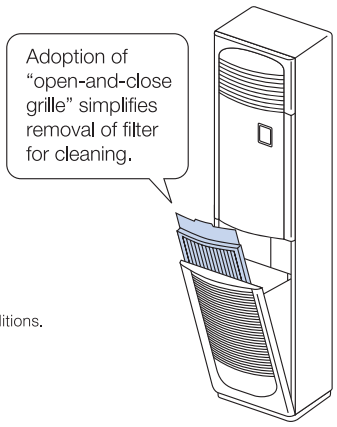
Streamlined, lightweight design

The PSY Series has a streamlined design and takes up very little floor space. Adding to this appeal, the unit weight has been significantly reduced for easier handling.

Long-life filter as standard equipment

Indoor units are equipped with a long-life filter that has a maximum service life of 2,500 hours* (based on use under average office conditions). Filter cleaning is drastically reduced. Furthermore, the adoption of an "open-and-close grille" makes it easy to take the filter out to clean off dust and particulates.

*May vary according to operating conditions.



Flockless vanes

With the adoption of new flockless vanes, dirt and other impurities can be cleaned off easily.

Features at a glance

Installation & Maintenance	Comfort	Others
• Chargeless system	• Auto-louver	• System control
• Lightweight design	• Computerized dehumidifier	• Auto restart
• 4-way multi-directional piping	• Quiet operation	• Outdoor unit max. operating temp. of 52°C
• Easily removable filter		
• Long-life filter (2500hrs.)*		
• Self-diagnostic function		
• Flockless vanes		

*May vary according to operating conditions.

SPECIFICATIONS

Floor-standing
PSY SERIES

Models				PSY-SP30KA	PSY-SP36KA	PSY-SP42KA	PSY-SP48KA
Cooling capacity (Min-Max)			kW	8.8 (3.8-8.8)	10.6 (4.0-10.6)	12.3 (6.1-12.3)	13.4 (6.7-13.4)
			BTU/h	30,000	36,000	42,000	45,700
Total input			kW	2.56	3.65	4.06	5.86
EER			W/W	3.44	2.90	3.02	2.28
ISEER			W/W	4.36	3.83	3.81	3.34
Indoor unit	Model name			PSY-SP30KA	PSY-SP36KA	PSY-SP42KA	PSY-SP48KA
	Power supply			1phase 220-240V 50Hz			
	External finish			Munsell 0.7Y 8.59/0.97			
	Airflow (low-med2-med1-high)		CMM	25-28-30	25-28-31		
			CFM	885-990-1060	885-990-1090		
	External static pressure		Pa	0 (direct blow)			
	Opearation control and thermostat			Built-in			
	Noise level (low-mid2-mid1-high)		dB (A)	45-49-51			
	Unit drain pipe (outer diameter)		mm	26			
	Dimensions	W	mm	600			
		D	mm	360			
		H	mm	1,900			
	Weight		kg	46	48		
Outdoor unit	Model name			SUY-SA30VA2	PUY-SP36YKA2	PUY-SP42YKA2	PUY-SP48YKA2
	Power supply			1ph 220-240V 50Hz	3phase 380-415V 50Hz		
	External finish			Munsell 3.0Y 7.8/1.1			
	Refrigerant (R410A) control			Linear expansion valve			
	Airflow		CMM	51	75		87
			CFM	1,800	2,648		3,071
	Noise level		dB (A)	54	52	53	56
	Dimensions	W	mm	840	1,050		
		D	mm	330	330		
		H	mm	880	981		
	Weight		kg	50	65	73	
	Max. height difference		m	15	30		
	Max. piping length		m	30	50		
	Pipe size (outer diameter)		mm	Liquid: 9.52 Gas: 15.88			
Guaranteed Opearating Range			Upper limit (DB)	52			
			Lower limit (DB)	18			
Star Rating					—	—	—

- Rating conditions Cooling - Indoor: 27°C (80°F) DB, 19°C (66°F) WB, Outdoor: 35°C (95°F)
- Refrigerant piping length (one-way): 7.5m(25ft)
- Total input based on the indicated voltage (indoor/outdoor): 1phase 230V 50Hz, 3phase 400V 50Hz

CONTROL TECHNOLOGIES

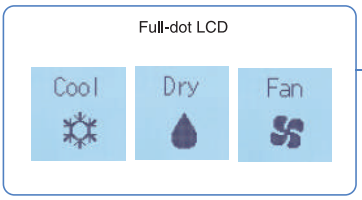
User-friendly Deluxe Remote Controller with Excellent Operability and Visibility

PAR-31MAA (Optional)

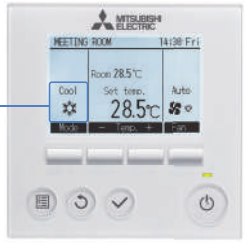
Full-dot Liquid-crystal Display Adopted

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]



PAR-31MAA



Easy-to-Read & Easy-to-Use

Multi-language

Multi-language Display

Control panel operation in eight different languages

Choose the desired language from among the following.

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 10-minute units, in a range between 30 and 120 minutes.

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

Night Setback

Keep desired room temperatures automatically

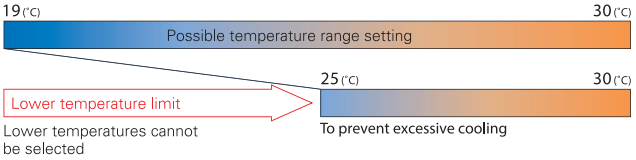
This function monitors the room temperature and automatically activates the cooling mode when the temperature rises above the preset maximum temperature setting.

Temperature Range 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-house calculations

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



Recommended for: Office, Restaurant

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 Lock

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.

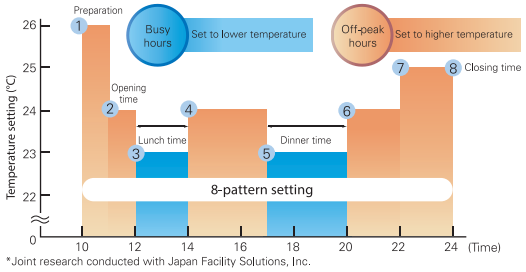
Recommended for: Office, School, Public hall, Hospital, Computer server facility

Weekly Timer

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)



*Joint research conducted with Japan Facility Solutions, Inc.

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

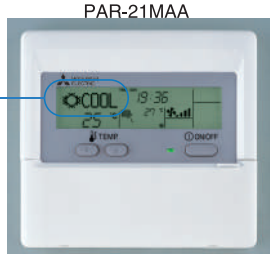
PAR-21MAA (PEY-SP Series, PSY Series Built in)

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.

Display Example [Operation Mode]

PAR-21MAA



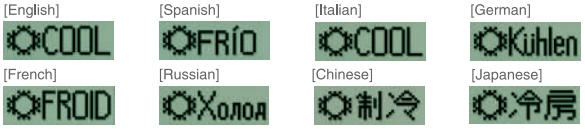
Easy-to-Read/Easy-to-Use

Multi-language

Multi-language Display

Control panel operation in eight different languages

Choose the desired language from among the following.



Energy-efficient Control

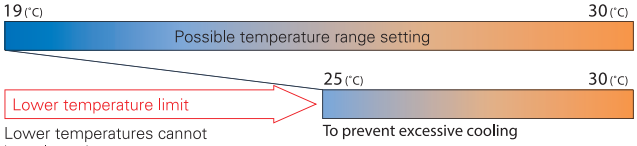
Operation Control Functions

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.

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



Recommended for: Office, Restaurant

Auto-off Timer

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 controller.

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.

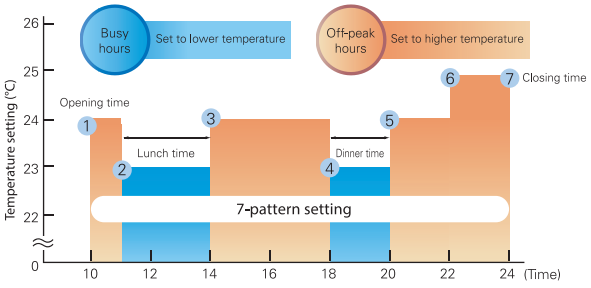
Recommended for: Office, School, Public hall, Hospital, Computer server facility

Weekly Timer

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 possible.

Setting Example (restaurant in summer time)



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

NOTE & OUTDOOR UNIT

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

Guaranteed Operating Range

		SUY-SA	PUY-SP
Cooling	Upper limit (DB)	52°C	52°C
	Lower limit (DB)	18°C	18°C

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

Capacity	Between indoor and outdoor units		Pipe size (mm, outer dia.)	Thickness (mm)
	Max. height difference (m)	Max. piping length (m)		
SUY-SA18	12	20	Liquid: ø6.35	t 0.8
			Gas: ø12.7	t 0.8
SUY-SA24/30	15	30	Liquid: ø9.52	t 0.8
			Gas: ø15.88	t 1.0
PUY-SP36 PUY-SP42 PUY-SP48	30	50	Liquid: ø9.52	t 0.8
			Gas: ø15.88	t 1.0

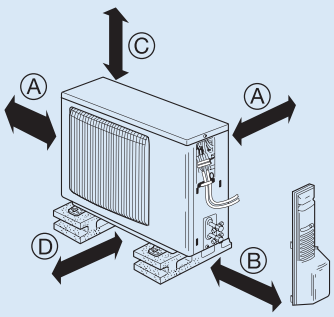
Refrigerant Requirements (R410A: kg)

Piping length	Factory charged	Additional charge									Calculation
	7m	10m	15m	20m	25m	30m	35m	40m	45m	50m	
SUY-SA18	1.2	0.05	0.12	0.2	—	—	—	—	—	—	Xg=15g/m×(length-7)m
SUY-SA24	2.0	0.06	0.16	0.26	0.36	0.46	—	—	—	—	
SUY-SA30	2.1	0.06	0.16	0.26	0.36	0.46	—	—	—	—	Xg=20g/m×(length-7)m
PUY-SP36 PUY-SP42 PUY-SP48	2.8	0	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	Xg=30g/m x (length-10)m

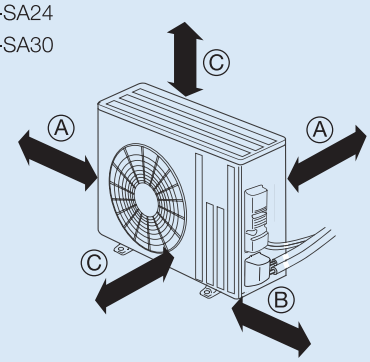
• When installing a single outdoor unit

<S Series>

■ SUY-SA18



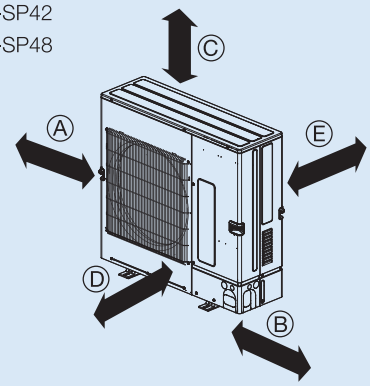
■ SUY-SA24
■ SUY-SA30



	SUY-SA18	SUY-SA24, 30
Ⓐ	100mm or more	
Ⓑ	350mm or more	
Ⓒ	100mm or more	500mm or more
Ⓓ	200mm or more	–

<P Series>

■ PUY-SP36
■ PUY-SP42
■ PUY-SP48



	PUY-SP36,42,48
Ⓐ	250mm or more
Ⓑ	250mm or more
Ⓒ	1,500mm or more
Ⓓ	Free
Ⓔ	500mm or more

[Notice] If there is any obstruction around the unit, check the condition details in the Data Book.

OPTIONAL PARTS

Optional Parts

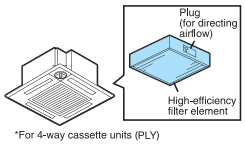
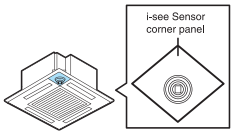
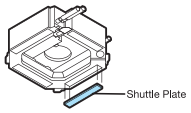
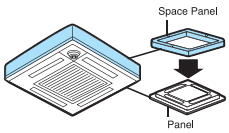
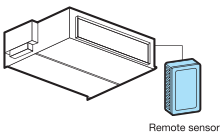
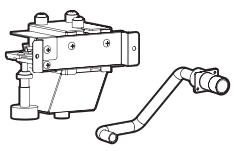
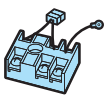
Part Name		Model name	Applicable models
Drain pump		PAC-DRP06SL-E	PEY-SP
M-NET and Terminal interface		MAC-334IF-E	All indoor units
Wireless remote controller		PAR-SL100A-E	PLY-SP-EA
		PAR-SL97A-E	PLY-SP / PEY-SP
Wireless remote controller signal receiver		PAR-SA9CA-E	PEY-SP
		PAR-SE9FA-E	PLY-SP-EA
		PAR-SA9FA	PLY-SP-BA
High-efficiency filter element		PAC-SH59KF-E	PLY-SP
Filter box		PAC-KE92TB-E	PEY-SP18
		PAC-KE93TB-E	PEY-SP24
		PAC-KE94TB-E	PEY-SP30/36/42/48
3D i-see sensor corner panel		PAC-SE1ME-E	PLY-SP-EA
i-see sensor corner panel		PAC-SA1ME-E	PLY-SP-BA
Shutter plate		PAC-SJ37SP-E	PLY-SP-EA
		PAC-SH51SP-E	PLY-SP-BA
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-SJ65AS-E	PLY-SP-EA
		PAC-SH48AS-E	PLY-SP-BA
Connector cable for remote display		PAC-SH48AS-E	All indoor units
Wired remote controller		PAR-32MAA	All indoor units
		PAR-21MAA	All indoor units
Multiple remote controller adaptor		PAC-725AD	All indoor units
Air outlet guide		MAC-881SG	SUY-SA18
		MAC-886SG-E	SUY-SA24/30
		PAC-SH96SG-E	PUY-SP36/42/48
Joint pipe	(Unit ø9.52 → Pipe ø12.7)	PAC-SG73RJ-E	PUY-SP36/42/48
	(Unit ø15.88 → Pipe ø19.05)	PAC-SG75RJ-E	PUY-SP36/42/48
Filter dryer for liquid pipe		PAC-SG82DR-E	PUY-SP36/42/48
Air protection guide		PAC-SH95AG-E	PUY-SP36/42/48
Drain socket		PAC-SG61DS-E	PUY-SP36/42/48
Centralized drain pan		PAC-SH97DP-E	PUY-SP36/42/48
M-Net converter		PAC-SJ95MA-E	PUY-SP36/42/48
Control/Service tool		PAC-SK52ST	PUY-SP36/42/48
External/Input adapter		PAC-SC36NA-E	PUY-SP36/42/48
Power supply terminal kit		PAC-SJ39HR-E	PLY-SP36/42/48-EA

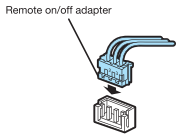
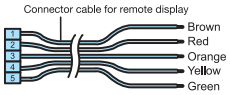
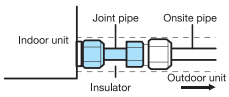
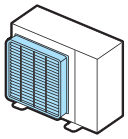
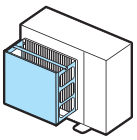
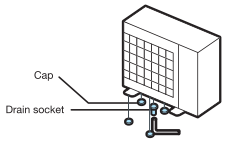
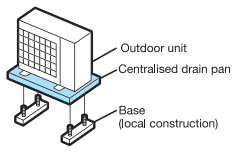
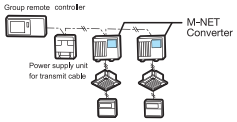
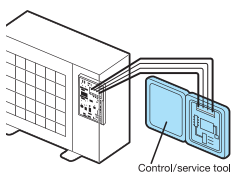
⚠ CAUTION

- 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 or other hazard.
  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.

OPTIONAL PARTS

Main Optional Parts

Part name	Description
High-efficiency Filter Element Element for high-efficiency filter. Removes fine dust particles from the air.	 *For 4-way cassette units (PLY)
i-see sensor and (3D) i- sensor for corner panel for PLY Corner panel holding the (3D) i-see Sensor.	
Shuttle Plate Plate for blocking an air outlet of the 4-way cassette indoor unit.	
Space Panel Decorative cover for installation when the ceiling height is low.	
Wired Remote Controller Advanced deluxe remote controller with full-dot liquid-crystal display and backlight. Equipped with convenient functions like night-setback.	
Remote Sensor Sensor to detect the room temperature at remote positions.	
Drain Pump for PEY Series Raises drain generated during units operation to secure the appropriate angle of the drain pipe.	
Power Supply Terminal Kit Terminal bed to change the power supply from outdoor power supply to separate indoor/ outdoor power supplies.	

Part name	Description
Remote On/Off Adapter Connector for receiving signals from the local system to control the on/off function.	
Connector Cable for Remote Display Connector used to display the operation status and control the on/off function from a distance.	
Joint Pipe Part for connecting refrigerant pipes of different diameters.	
Air Outlet 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.	
Centralised Drain Pan Catches drain water generated by the outdoor unit.	
M-NET Converter Used to connect P Series A-control models to M-NET controllers.	
Control/Service Tool Monitoring tool to display operation and self-diagnosis data.	

Mitsubishi Electric Quality

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.

MITSUBISHI ELECTRIC

AIR CONDITIONERS

Changes for the Better

SUMMER

APR

46°C

WINTER

DEC

-10°C

INVERTER HEAT PUMP

FOR THE HOTTEST SUMMERS AND THE COLDEST WINTERS

Heat Pump Inverter Package Air Conditioner Line Up

INDOOR

Model Name
SEZ/PEAD Series

Compact Ceiling Concealed

2 & 3 HP: 1-Phase

4 & 6 HP: 3-Phase

Model Name
PLA Series

4 Way Cassette

2 & 3 HP: 1-Phase

4 & 6 HP : 3-Phase

SAVE R410A OZONE

POWER SAVINGS GUIDE

5 Star*

OUTDOOR

SUZ-KA

PUHZ-P

SUZ-KA

PUHZ-P

*available in selected models.

Leading the world in every field with advanced technology and assured quality

Technologies are forever changing society and the way people live. Applying innovative ideas and advanced technological prowess, Mitsubishi Electric delivers various products and services that improve daily life and the social infrastructure. From residential-use products to those for commercial and industrial-use, semiconductors, social infrastructure systems, and products and services for the development of outer space, we are not only the leading manufacturer in Japan, but throughout the world.

We have maintained our commitment to the pursuit of better technologies and higherquality throughout a history nearly Spanning over 100 years. Our detailed craftsmanshipin all products has resulted in global recognition as a reliable brand. Not only with advancedair conditioning products and systems, but also with superior product development power, **Mitsubishi Electric** will continue to support lifestyles and societies for generations to come.

1921

Mitsubishi Electric is branched off from Mitsubishi Corporation as a separate identity

1928

E52, the first large-scale electric locomotive produced in Japan

1935

Commencement of elevator & escalator production

1953

Launched first commercial television

1964

Produced radar equipment for the weather station atop Mt. Fuji

1980

Debut of Diamond Vision display at Dodger Stadium in the United States

1990

Launched world's first commercial car navigation system incorporating GPS

2000

Adopted MISTY® technology as encryption standard for 3rd-generation mobile phones

2007

Completed 173-metre-tall elevator testing tower (world's tallest at the time)

2008

Launched SUPERBIRD-C2, Japan's first domestically produced commercial satellite

2011

Debut of Hayabusa Series E5, holder of the Japanese speed record for a train

2014

Unveiled world's largest full ultra-HD video display* in Times Square, New York City*As of Nov. 18, 2014 (based on total area)

Air Conditioner product history

1954

Room Air Conditioners production started.

1967

Introduced Japan's first wall-mounted split-type Air Conditioners.

1968

Introduced Japan's first ceiling-suspended, split-type Air Conditioners.

1978

Introduced Mr. Slim Air Conditioners for commercial use.

1984

Introduced inverter Air Conditioners with wireless remote control and automatic vane.

1993

Accumulated room Air Conditioners production of 10 million units.

1994

Introduced i-see Sensor (built-in sensor). First in industry to develop a sensor that detects the location of people.

2008

Solved the problem of wide spaces with the release of the 3D i-see Sensor.

3D i-see Sensor

Inverter Technologies

Mitsubishi Electric inverters ensure superior performance, including the optimum control of operational 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.

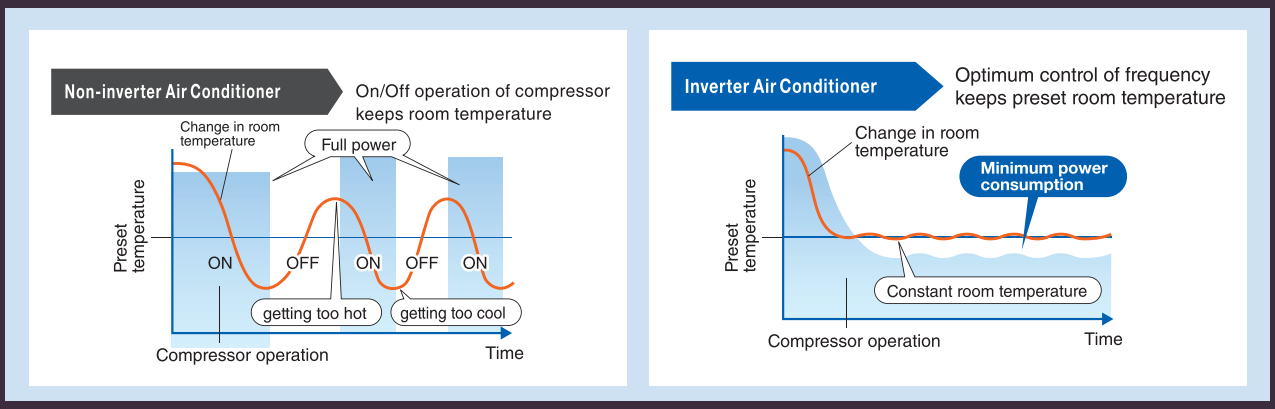
ECONOMICAL OPERATION

Impressively low operating cost is a key advantageof 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 is 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.

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.

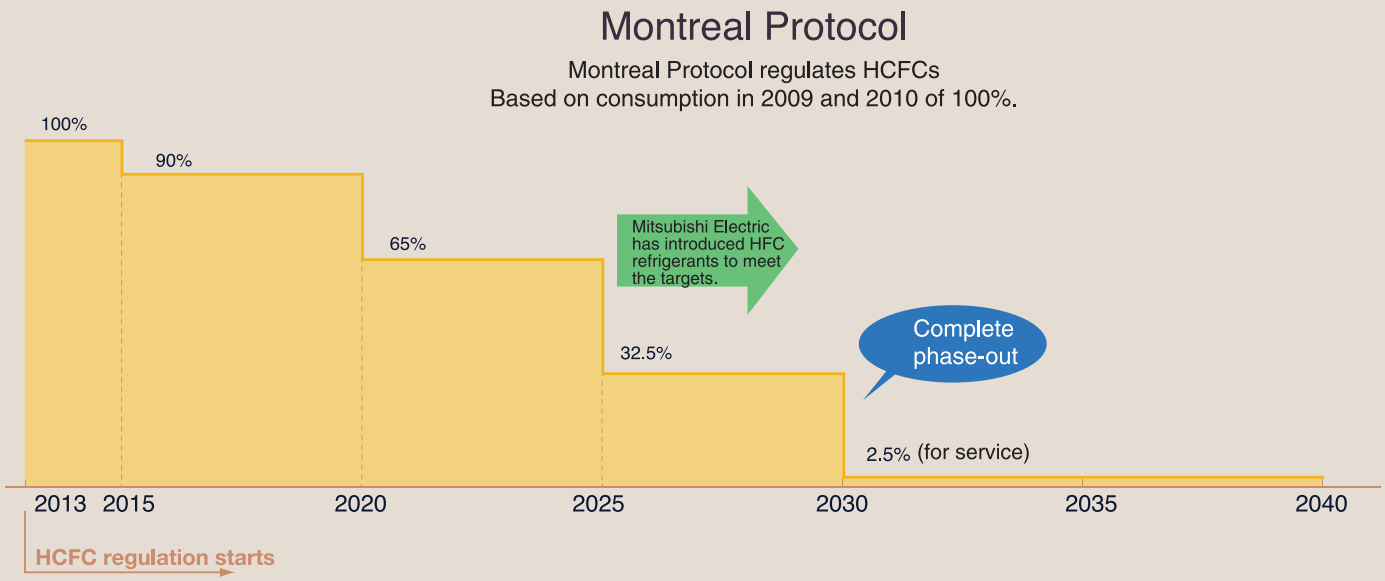
Room Temperature Maintained

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 large temperature swings common with non-inverter systems and guarantees a pleasant, comfortable environment.

R410A Refrigerant

As scientific evidence points to man-made chemicals causing damage to ozone layer, Mitsubishi Electric only use chlorine-free refrigerants that are safe and rated zero ozone depletion potential ODP. Accordingly, our systems require less energy to run and have 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 refrigerant consumption in Article 5 countries (such as R22) by the year 2030.Mitsubishi Electric is committed to shifting over to HFC models from HCFC models.



MITSUBISHI ELECTRIC Compressor

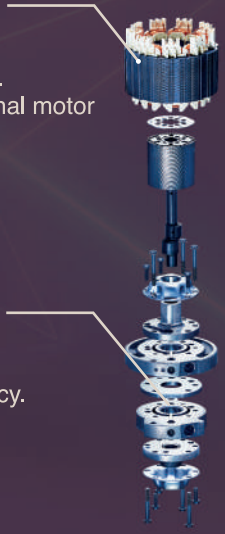
The compressor is the heart of the Air Conditioner. Employing Mitsubishi Electric's proprietary technology, we are able to achieve both high efficiency and high power.

Poki-Poki Motor

Dramatically enhanced motor efficiency utilising original dense winding technology.
28% more wire as compared to conventional motor

Heat Caulking

Original heat caulking method minimizes cylinder distortion for even greater efficiency.

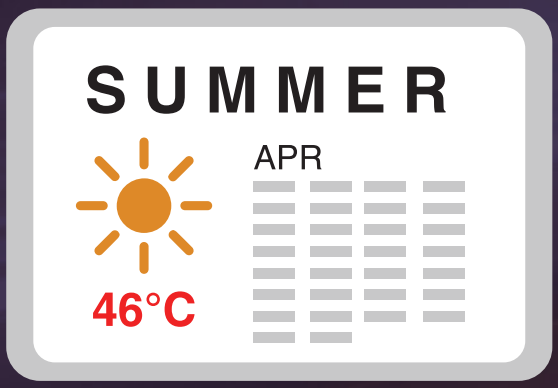


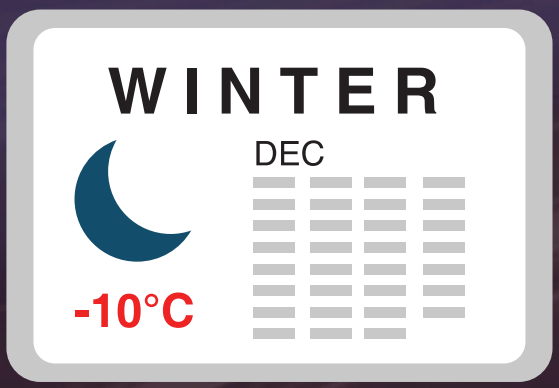
PLA SERIES

A complete line-up including deluxe units that offer added energy savings. The incorporation of wide air-outlet and the “3D i-see Sensor”enhances airflow distribution control, achieving an enhanced level of comfort throughout the room. The synergy of higher energy efficiency and more comfortable room environment results in optimum user satisfaction.

An automatic grille lowering function is available for easy filter maintenance. Special wired and wireless remote controllers can be used to lower the intake grille for maintenance.

5 Star*

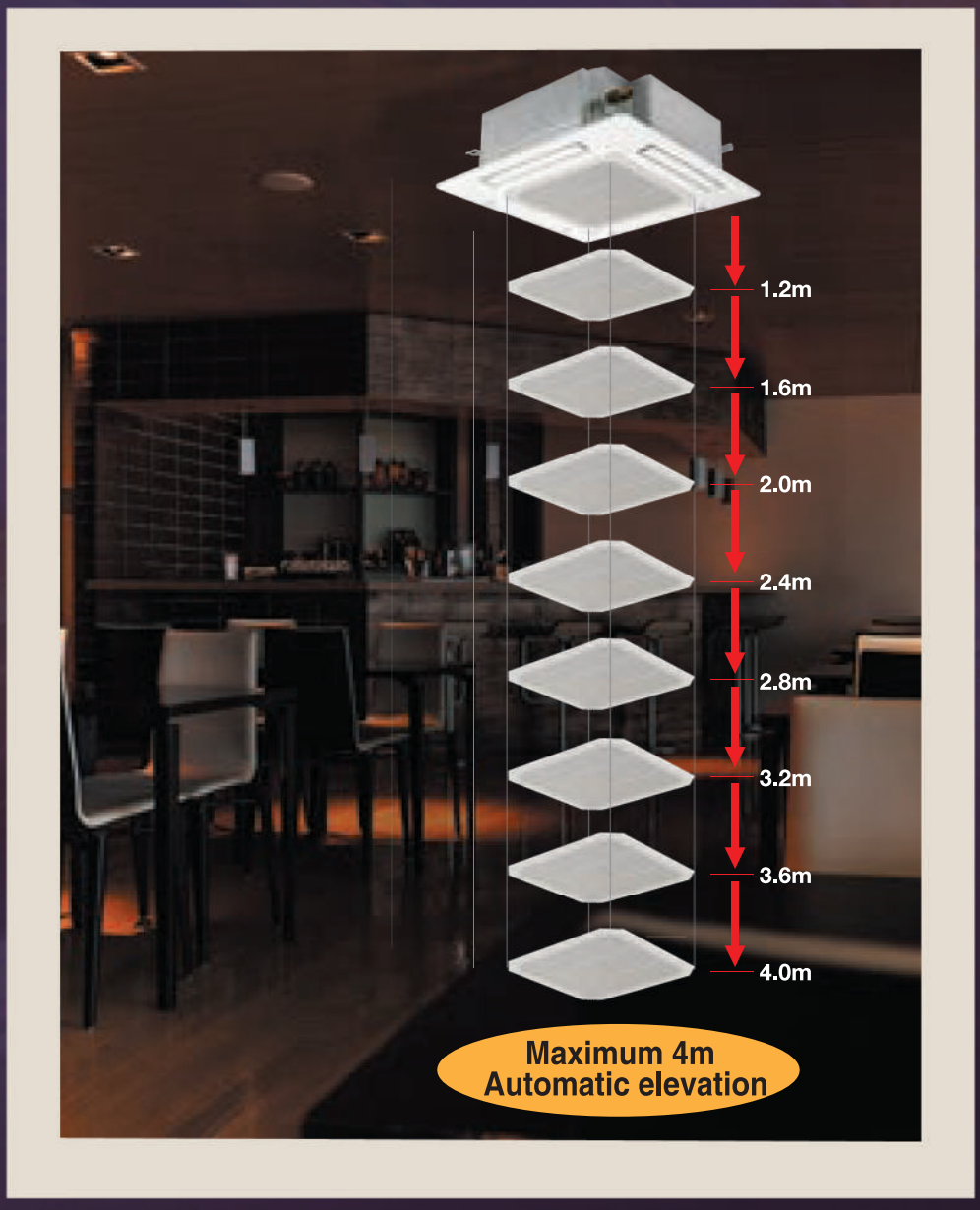




Automatic Grille Lowering Function[1] (PLP-6EAJ)

Grille Elevation Remote Controller(comes with the automatic elevation panel)

Wireless Remote Controller



[1]Optional
*Available in PLA-RP50/71

Detects number of people

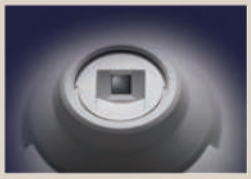
3D i-see Sensor detects the number of people in the room and sets the Air-Conditioning power accordingly.This makes automatic power-saving operation possible in places where the number of people entering and exiting is large.

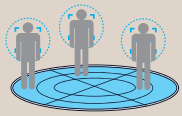
Additionally, when the area is continuously unoccupied, the system switches to a more enhanced power-saving mode.

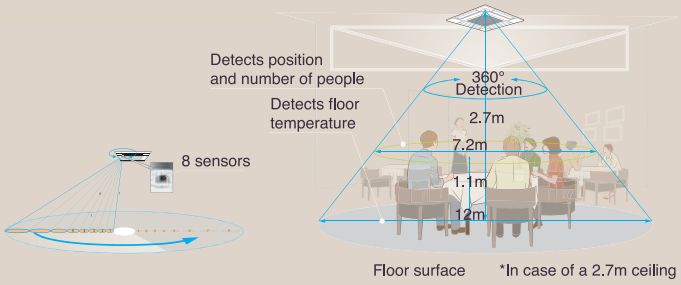
Depending on the setting, it will save additional capacity or stop operation altogether.

Detects people's position

Once the position of a person is detected, the duct angle of the vane is automatically adjusted in that direction. Each vane can be independently set to "block wind" or "not block wind" according to taste.

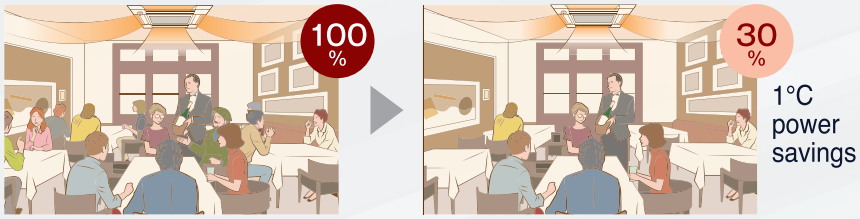




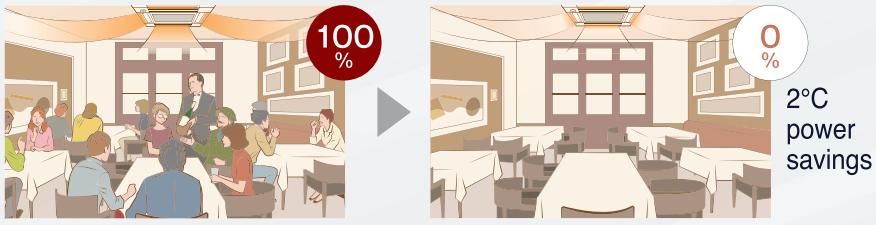


[1]optional

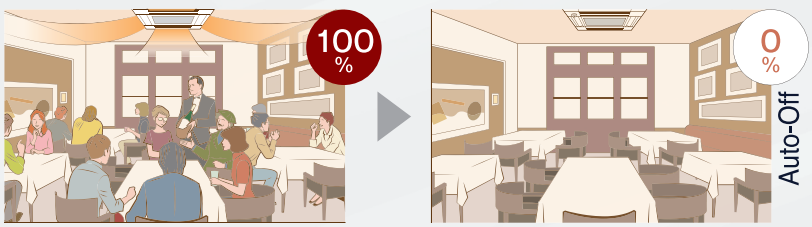
Room occupancy energy-saving mode



No occupancy Auto-OFF mode



No occupancy energy-saving mode



*PAR-32MAA is required for each setting

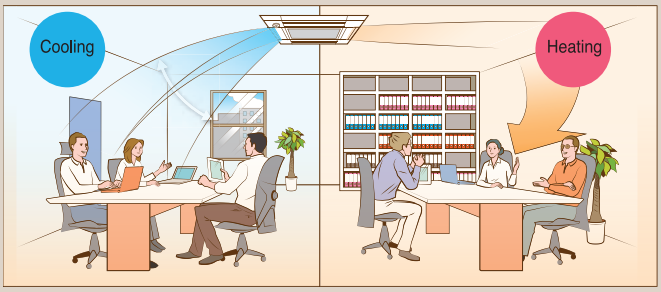
When cooling

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

When heating

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

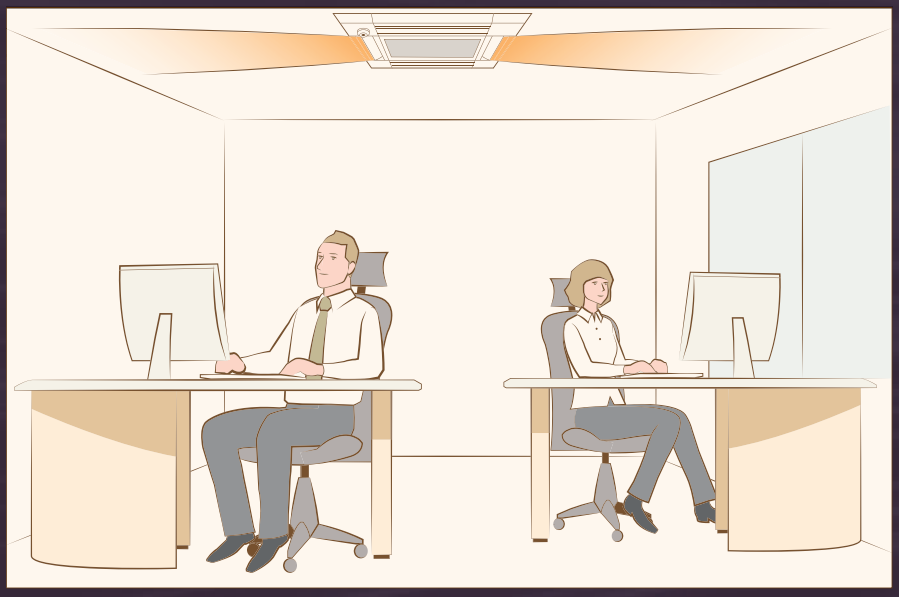
Seasonal airflow*



*PAR-32MAA is required for each setting.

Direct/Indirect settings*

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



*PAR-32MAA or PAR-SL100A-E is required for each setting.

Easy Installation

Electrical box wiring

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

Increased space for plumbing work

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

Temporary hanging hook

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

No need to remove screws

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

Corner panel

Control box cover

Lightweight decorative panel

R410A Heatpump Inverter Ceiling Cassette PLA Specifications

Models				PLA-RP50EA-DA	PLA-RP71EA-DA	PLA-RP100EA-DA	PLA-RP140EA-DA
Cooling	Capacity (Min - Max)		kW	5.5(2.3-5.6)	7.1(2.8-8.1)	9.4(3.7-10.6)	13.6 (5.8-14.1)
	Capacity		BTU/h	18,800	24,000	32,100	46,400
	Total Input		kW	1.61	2.10	3.18	5.41
	EER		W/W	3.41	3.38	2.95	2.51
	ISEER		W/W	4.50	4.51	-	-
Heating	Capacity (Min - Max)		kW	5.8(1.7-7.2)	8.0 (2.6-10.2)	11.2 (2.8-12.5)	15.0(4.9-15.8)
	Capacity		BTU/h	19,800	27,300	38,200	51,200
	Total Input		kW	1.69	2.24	3.26	4.67
	COP		W/W	3.43	3.56	3.43	3.21
Indoor Unit	**Model name**			**PLA-RP50EA-DA**	**PLA-RP71EA-DA**	**PLA-RP100EA-DA**	**PLA-RP140EA-DA**
	Power supply			1ph 220-240V 50Hz			
	External finish			Munsell 1.0Y 9.2/0.2			
	Airflow (low-med2-med1-high)		CMM	14-16-17-18	16-17-19-21	19-23-26-29	24-26-29-32
			CFM	495-565-600-635	565-600-670-740	670-810-920-1025	850-920-1025-1130
	External static pressure		Pa	0 (direct blow)			
	Operation control and thermostat			Remote control & Built-in			
	Noise level (low-med2-med1-high)		dB (A)	27-29-31-32	28-30-32-34	31-34-37-40	36-39-42-44
	Unit drain pipe (outer diameter)		mm	32			
	Dimensions (panel)	W	mm	840(950)			
		D	mm	840(950)			
		H	mm	258 (40)		298(40)	
	Weight (panel)		kg	19(5)	21(5)	24(5)	27(5)
Outdoor Unit	**Model name**			**SUZ-KA50VA-DA**	**SUZ-KA71VA-DA**	**PUHZ-P100YKA**	**PUHZ-P140YKA**
	Power supply			1ph 220-240V 50Hz		3ph 380-415V 50Hz	
	External finish			Munsell 3.0Y 7.8/1.1			
	Refrigerant (R410A) control			Linear Expansion Valve			
	Airflow		CMM	44.6	50.1	79	86
			CFM	1575	1770	2792	3039
	Noise Level		dB (A)	52	55	51	56
	Dimensions	W	mm	840		1050	
		D	mm	330		330(+40)	
		H	mm	880		981	
	Weight		kg	54	53	78	85
	Max. height difference		m	30	30	30	30
	Max. piping length		m	30		50	
	Pipe size (outer diameter)		mm	Liquid:6.35/Gas:12.7	Liquid:9.52/Gas:15.88		
	Chargeless piping length		m	7		30	

Cooling Operating Range	Upper limit (°CDB)	46	
	Lower limit (°CDB)	-15	
Heating Operating Range	Upper limit (°CDB)	24	21
	Lower limit (°CDB)	-10	-15

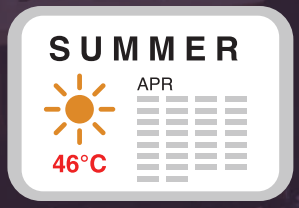
- Rating conditions Cooling - Indoor: 27℃(80℉)DB, 19℃(66℉)WB, Outdoor: 35℃(95℉)DB, Heating - Indoor: 20℃(68℉)DB, Outdoor: 7℃(45℉)DB, 6℃(43℉)WB
- Refrigerant piping length (one-way): 7.5m(25ft)
- Total input based on the indicated voltage (indoor/outdoor): 1ph 220-240V 50Hz, 3ph 380-415V 50Hz

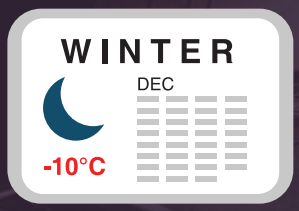
* Operation air protection guide is required where ambient temperature is lower than -5℃.

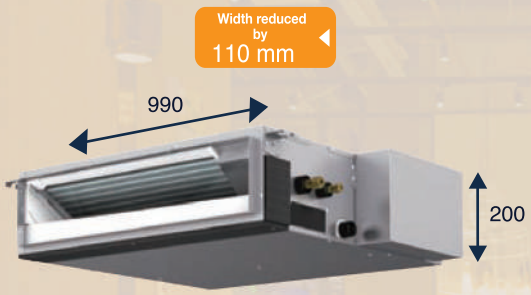
SEZ/PEAD SERIES

Ultra thin Ceiling Concealed indoor units of this series are the perfect answer for the air conditioning needs of modern buildings with minimum ceiling installation space requirements and wide-ranging external static pressure.Energy-saving efficiency has been improved, reducing electricity consumption and contributing to a further reduction in operating costs.

Temperature Range : -10°C to 46°C







SEZ SERIES

PEAD SERIES

Available with SEZ Series

Optional - Not Available with PEAD Series

External Static Pressure

External static pressure conversion can be set up to five stages. Capable of being set to a maximum of 150 Pa, units are applicable to a wide range of building types.

External static pressure setting

Series	External Static Pressure Settings
SEZ-KD-VA	5/15/35/5 Pa
PEAD-RP JA	35/50/70/100/150 Pa

R410A Heatpump Inverter Ceiling Concealed SEZ / PEAD Specifications

Models				SEZ-KD50VAL	PEAD-RP71JALQ	PEAD-RP100JALQ	PEAD-RP140JALQ
Cooling	Capacity (Min - Max)		kW	5.1 (2.3-5.2)	7.1 (2.8-8.1)	9.4 (3.7-10.6)	13.6 (5.8-14.1)
	Capacity		BTU/h	17,400	24,000	32,000	46,400
	Total Input		kW	1.580	2.08	2.98	5.21
	EER		W/W	3.22	3.41	3.15	2.61
Heating	Capacity (Min - Max)		kW	6.4 (1.7-7.2)	8.0(2.6-10.2)	11.2(2.8-12.5)	15.0 (4.9 - 15.8)
	Capacity		BTU/h	21,800	27,300	38,200	51,200
	Total Input		kW	1.800	2.04	2.94	4.27
	COP		W/W	3.55	3.92	3.80	3.51
Indoor Unit	Model name			SEZ-KD50VAL	PEAD-RP71JALQ	PEAD-RP100JALQ-PA	PEAD-RP140JALQ-PA
	Power supply			1ph 220-240V 50Hz	1ph 220V-240V 50Hz		
	External finish			Galvanized sheets	Galvanized steel plate		
	Airflow (low-mid-high)		CMM	10.0-12.5-15.0	17.5-21-25	24-29-34	32-39-46
			CFM	353-441-530	618-742-883	848-1024-1200	1130-1377-1624
	External static pressure		Pa	5 / 15 / 35 / 50	35/50/70/100/150	35/50/70/100/150	35/50/70/100/150
	Operation control and thermostat			Remote Control Built in	Built in		
	Noise level (low-med-high)		dB (A)	30-34-37	26-30-34	29-34-38	34-38-43
	Unit drain pipe (outer diameter)		mm	32	32	32	32
	Dimensions	W	mm	990	1100	1400	1600
		D	mm	700	732		
		H	mm	200	250		
	Weight (panel)		kg	22	29	38	43
Outdoor Unit	Model name			SUZ-KA50VA-DA	SUZ-KA71VA-DA	PUHZ-P100YKA	PUHZ-P140YKA
	Power supply			1ph 220-240V 50Hz	1ph 220-240V 50Hz	3ph 380-415V 50Hz	
	External finish			Munsell 3.0Y 7.8/1.1			
	Refrigerant (R410A) control			Linear Expansion Valve			
	Airflow		CMM	44.6	50.1	79	86
			CFM	1574	1770	2792	3039
	Noise level		dB (A)	52	55	51	56
	Dimensions	W	mm	840	840	1050	
		D	mm	330	330	330 (+40)	
		H	mm	880	880	981	
	Weight		kg	54	53	78	85
	Max. height difference		m	30			
	Max. piping length		m	30	30	50	50
	Pipe size (outer diameter)		mm	Liquid:6.35/Gas:12.7	Liquid:9.52/Gas:15.88		
	Chargeless piping length		m	7	7	30	

Cooling Operating Range	Upper limit (°CDB)	46	46	
	Lower limit (°CDB)	-15	-15	
Heating Operating Range	Upper limit (°CDB)	24	24	21
	Lower limit (°CDB)	-10	-10	-15

- Rating conditions Cooling - Indoor: 27℃(80°F)DB, 19℃(66°F)WB, Outdoor: 35℃(95°F)DB, Heating - Indoor: 20℃(68°F)DB, Outdoor: 7℃(45°F)DB, 6℃(43°F)WB
- Refrigerant piping length (one-way): 7.5m(25ft)
- Total input based on the indicated voltage (indoor/outdoor): 1ph 220-240V 50Hz, 3ph 380-415V 50Hz

*Operation air protection guide is required where ambient temperature is lower than -5 °C.

MITSUBISHI ELECTRIC

AIR CONDITIONERS

Changes for the Better

Mr.SLIM

R410A

NON- INVERTER SERIES

(PL-P & PE-P SERIES)

SAVE R410A OZONE

The MEQ Difference

Mitsubishi Electric Quality

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…

Efficiency

Optimum performance and energy savings…

Durability

Rugged construction, rigorous testing, long-lasting operation…

One of the world's most advanced ACs. Now in India

4-way Ceiling-cassette

(R410A Non-Inverter PLP 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, multi-functional 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.

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.

Low ➡ Medium 2 ➡ Medium 1 ➡ High ➡ Automatic air-speed adjustment

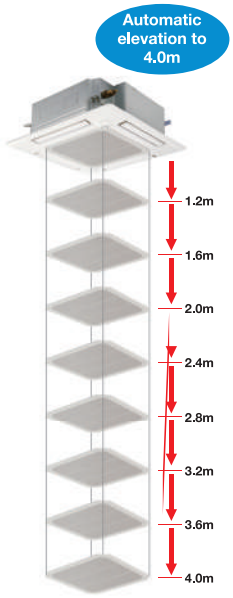
(When using the wireless remote controller, an extra setting is required.)

Automatic Grille Lowering Function (Optional)

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

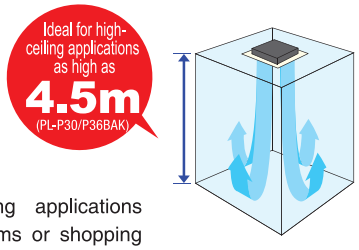
Elevating (up-down) controller

(comes with the automatic elevation panel)



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 4.5m in height. The demands of high-ceiling applications such as halls, showrooms or shopping malls can now be fully answered thanks to this powerful, yet highly efficient airflow.



■**Specification according to ceiling height** (Unit: m)

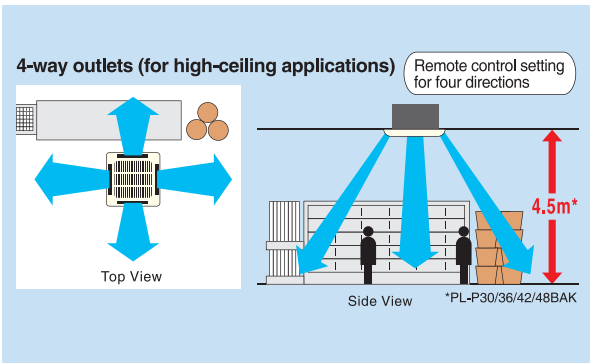
	PL-P36/P42/48BAK		
	Low ceiling*	Standard	High ceiling
4-way	2.7	3.2	4.5

Vane Control

For Shopping Malls

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 4m in height.



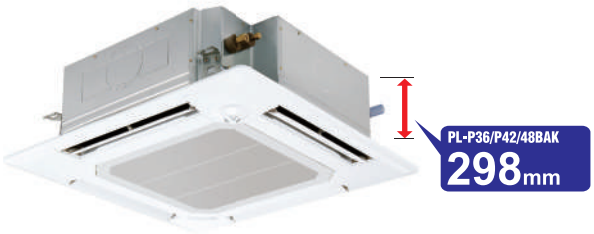
Energy-efficient Control Optional

Weekly Timer | Auto-off Timer | Operation Lock | Temperature Range Restriction

Air conditioner operation restricted to 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.

Slim Body Height

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



Quiet Operation

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

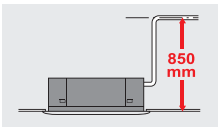
Power flow fan

Other Features

- Automatic Vane Shutter
- Wireless remote controller available
- Automatic Grille Lowering Funtion (Optional)
- i-see Sensor (Optional Corner Panel)

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.

Specifications

Models				PL-P36BAK	PL-P42BAK	PL-P48BAK
Cooling Capacity*1			kW	10.4	12.4	13.2
			BTU/h	35,500	42,300	45,000
Total Input*2			kW	3.37	5.54	5.25
EER			W/W	3.59	2.24	2.51
Indoor unit	Power Supply			1ph 220-240V 50Hz	1ph 220-240V 50Hz	
	External Finish			Munsell 6.4Y 8.9/0.	Munsell 6.4Y 8.9/0.4	
	Airflow (low-mid2-mid1-high)		CMM	20-24-27-30	24-26-29-32	
			CFM	705-850-955-1060	850-920-1025-1130	850-920-1025-1130
	External Static Pressure		pa	0 (directblow)	0 (directblow)	
	Operation Control			Wireless Remote control	Wireless Remote control	
	Noise Level (low-mid2-mid1-high)		dB (A)	33-37-40-43	38-40-42-45	
	Unit Drain Pipe (Outer Diameter)		mm	O.D.32		
	Dimensions (Panel)	W	mm	840 (950)	840 (950)	840 (950)
		D	mm	840 (950)	840 (950)	840 (950)
		H	mm	298 (35)	298 (35)	298 (35)
	Weight (panel)		kg	25 (6)	27 (6)	27 (6)
Outdoor unit	Model name			PU-P36YAKD	PU-P42YAKD	PU-P48YAKD
	Power supply			3ph 380-415V 50Hz		3ph 380-415V 50Hz
	External finish			Munsell 3.0Y 7.8/1.1		Munsell 3.0Y 7.8/1.1
	Refrigerant			R410A		
	Airflow		CMM (CFM)	95(3350)	100(3530)	90(3180)
	Noise level		dB (A)	54	56	56
	Dimensions	W	mm	870	970	970
		D	mm	295	345	345
		H	mm	1258	1258	1258
	Weight		kg	85	108	114
	Max. height difference		m	30	30	30
	Max. piping length		m	30	40	50
	Pipe size (outer diameter)		mm	Liquid: 9.52, Gas: 15.88	Liquid: 9.52, Gas: 15.88	Liquid: 9.52, Gas: 15.88
Guaranteed Operating Range			Upper limit(DBt)	45		
			Lower limit(DBt)	21	20	21

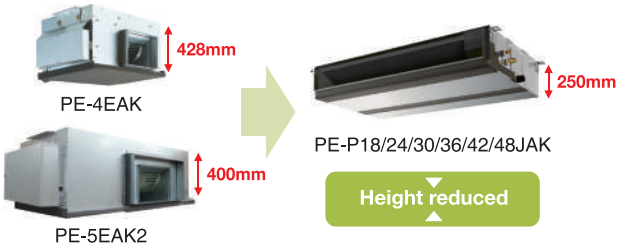
*1 Rating conditions Colling-Indoor: 27°C (80°F) DB, 19°C (66°F) WB, Outdoor: 35°C(95°F) DB
Refrigerant piping length (one-way): 7.5m (25ft)
*2 Total input based on the indicated voltage (indoor/outdoor): 1ph 230v 50Hz / 3ph 400v 50Hz

Ceiling concealed (PE-P Series)

The thin, ceiling-concealed indoor units of the PE-P series are the perfect answer for the air-conditioning requirements of buildings with minimum ceiling installation space and wide-ranging external static pressure.

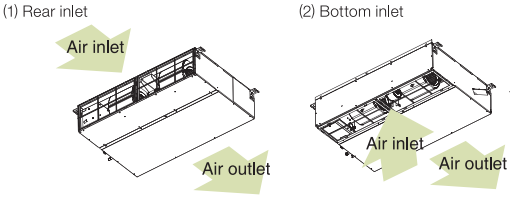
Compact Indoor Units

The unit height is unified to 250mm for all models. Compared to the pre vious models, the height has been reduced, allowing easy installation in tight spaces such as ceiling cavities or drop-ceilings.

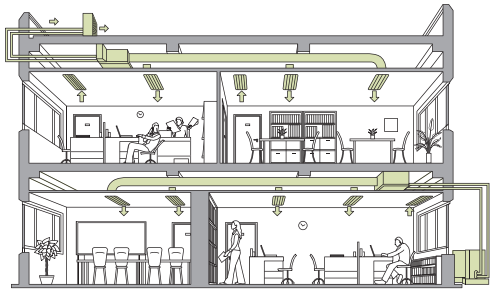


Air Inlet

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 has to be quiet, such as a bedroom.



■Flexible duct design



Wide Selection of External Static Pressure

Three-stage external static pressure conversions are available. Capable of being set to a maximum of 70Pa, these units are appropriate for a wide range of building types.

Features at a glance

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

External static pressure setting

Series	18	24	30	36	42	48
PE-P·JAK	30/50Pa		30/50/70Pa			

Specifications

Models				PE-P18JAK	PE-P24JAK	PE-P30JAK	PE-P36JAK	PE-P42JAK	PE-P48JAK
Cooling capacity			kW	5.1	6.3	8.3	10.4	12.4	13.5
Cooling capacity			BTU/h	17,400	21,500	28,300	35,500	42,300	46,000
Total input			kW	1.74	2.22	2.91	3.52	5.64	5.44
EER			W/W	2.93	2.84	2.85	2.95	2.2	2.48
Indoor unit	Power supply			1ph 220-240V 50Hz					
	External finish			Galvanized sheets					
	Airflow (low-high)		CMM	17.5-27	17.5-27	24-34	24-34	28-42	28-42
			CFM	618-953	618-953	847-1,200	847-1,200	988-1,482	988-1482
	External static pressure*		Pa	30-50	30-50	30-50-70	30-50-70	30-50-70	30-50-70
	Operation control			Remote control					
	Noise level (low-high)		dB (A)	30-38	30-38	34-45	34-45	36-45	36-45
	Unit drain pipe		mm	O.D. 32	O.D. 32	O.D. 32	O.D. 32	O.D. 32	O.D. 32
	Dimensions	W	mm	1,100	1,100	1,400	1,400	1,400	1,400
		D	mm	732	732	732	732	732	732
		H	mm	250	250	250	250	250	250
	Weight		kg	29	29	38	38	38	38
Outdoor unit	Model name			PU-P18VAKD	PU-P24VAKD	PU-P30VAKD	PU-P36YAKD	PU-P42YAKD	PU-P48YAKD
	Power supply			1ph 220-240V 50Hz			3ph 380-415V 50Hz		
	External finish			Munsell 3.0Y 7.8/1.1					
	Refrigerant			R410A					
	Airflow		CMM (CFM)	31(1095)	53(1871)	50(1765)	95(3350)	100(3530)	90(3,180)
	Noise level		dB (A)	51	54	55	54	56	56
	Dimensions	W	mm	800	840	840	870	970	970
		D	mm	285	330	330	295	345	345
		H	mm	550	880	880	1258	1258	1258
	Weight		kg	36	56	72	85	108	114
	Max. height difference		m	10		15	30		30
	Max. piping length		m	24				40	50
	Pipe size (outer diameter)		mm	Liquid: 6.35 Gas: 12.7	Liquid: 6.35 Gas: 15.88	Liquid: 9.52 Gas: 15.88	Liquid: 9.52 Gas: 15.88		
Guaranteed Operating Range		Upper limit (DB)		45					
		Lower limit (DB)		21					

• Rating conditions Cooling - Indoor: 27°F (80°F) DB,19°F (66°F) WB, Outdoor: 35°F (95°F) DB
• Refrigerant piping length (one-way): 7.5m(25ft)
• Specifications subject to change without notice.

*For Reference purpose only.

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MITSUBISHI ELECTRIC

AIR CONDITIONERS