Changes for the Better



Inverter Series MICSUM R410A



Beat the Heat even at **High Temperatures**



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.



Air conditioner product history

1954	1967	1968	1978	1984	1993	1994	2008
Room air conditioners production started.	Introduced Japan's first wall-mounted split-type air conditioners.	Introduced Japan's first ceiling-suspended, split-type air conditioners.	Introduced Mr. Slim air conditioners for commercial use.	Introduced inverter air conditioners with wireless remote control and automatic vane.	Accumulated room air conditioners production of 10 million units.	Introduced i-see Sensor (built-in sensor). First in industry to develop a sensor that detects the location of people.	Solved the problem of wide spaces with the release of the 3D i-see Sensor.

Mr.SL**I**M



Debut of Hayabusa Series E5, holder of the Japanese speed

2008



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





Mr.SUM PRODUCTENEUP

	18,000 BTU/h	24,000 BTU/h	30,000 BTU/h	36,000 BTU/h	42,000 BTU/h	48,000 BTU/h	Remote Controller	Contents
Image: Constraint of the series Image: Constraint of the series	PLY-SP18EA	PLY-SP24EA	PLY-SP30EA	PLY-SP36EA		PLY-SP48EA	PAR-SL100A-E For details of panel and controller, please refer to P.12	P. 10-14
Ceiling-concealed соссавес урание соссавес <tr< th=""><th>PEY-SP18JA(L)2</th><th>PEY-SP24JA(L)2</th><th>PEY-SP30JA(L)2</th><th>PEY-SP36JA(L)2</th><th></th><th>PEY-SP48JA(L)2</th><th>PEY-SP.JA2 Wireless remote controller PEY-SP.JAL2 Wireless remote controller</th><th>P. 15-16</th></tr<>	PEY-SP18JA(L)2	PEY-SP24JA(L)2	PEY-SP30JA(L)2	PEY-SP36JA(L)2		PEY-SP48JA(L)2	PEY-SP.JA2 Wireless remote controller PEY-SP.JAL2 Wireless remote controller	P. 15-16
Floor-standing PSY-SP SERIES				PSY-SP36KA	PSY-SP42KA	PSY-SP48KA	Built-in controller	P. 17-18
Outdoor Unit	SUY-SA18VA2	SUY-SA24VA2	SUY-SA30VA2	PUY-SP36YKA2	PUY-SP42YKA2	PUY-SP48YKA2		
	SUY-SA18VA*	SUY-SA24VA*	SUY-SA30VA*	PUY-SP36YKA*	PUY-SP42YKA*	PUY-SP48YKA*		

Mr.SLIM

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

Ca	tegory	Icon						P-S	eries			•
				Indoor unit	PLY-SP18/24/3	30/36/42/48EA	PLY-SP-BA18/24	4/30/36/42/48BA)/36/42/48JA(L)2	PSY-SP30/	36/42/48KA
			Combination	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
Те	hnology	DC Inverter			•	•	•	•	٠	•	٠	•
		Joint Lap DC Moto	or		٠		•		٠		٠	
		Magnetic Flux Veo	tor Sine Wave D	Drive		•		•		•		•
		Heating Caulking	(Compressor)		•		•		•		•	
		DC Fan Motor			•	•	•	•	•	•	•	•
		Vector-Wave Eco	nverter			٠		•		•		•
		Pulse Amplitude	Nodulation (PAN	1)	•	٠	•	•	•	•	•	•
		Grooved Piping			•	٠	•	•	٠	•	•	•
	Energy Saving	3D i-see sensor			Opt	Opt						
	g	Area Temperature	Monitor				Opt	Opt				
		Demand Function				Opt		Opt		Opt		Opt
	Air Quality	High-efficiency Filte	er		Opt	Opt	Opt	Opt				
		Long-life Filter			٠	•	•	•			•	•
		Filter Check Signa	al		•	•	•	•	•	•	•	•
	Air Distribution	Auto Vane			•	•	•	•			•	•
	Distribution	Horizontal Vane			٠	٠	•	•			٠	•
		Vertical Vane									•	•
		High Ceiling Mode)		•	٠	•	•				
		Low Ceiling Mode	1		•	•	•	•				
		Auto Fan Speed N	lode		٠	•	•	•			٠	•
		Direct/Indirect Airfle	ow (for Each Van	e)	Opt	Opt						
Functions	Convenience	On/Off Operation	Timer		•	•	•	•	٠	•	•	•
Func		Auto Restart			•	•	•	•	•	•	•	•
		Low-noise Operat	ion (outdoor un	it)		•		•		•		•
		Rotation, Back-up a	nd 2nd Stage Cut	in Functions		Opt				Opt		
	System Control	PAR-32MAA Cont	rol		Opt	Opt			Opt	Opt		
		Centralised On/Of	f Control		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt
		System Group Co	ntrol		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt
		M-NET Connection	n		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt
	Installation	Cleaning-free Pipe	Reuse		•	٠	•*	•	•*	•	•*	•
		Reuse of Existing	Wiring			Opt		Opt		Opt		Opt
		Drain Pump			•	•	•	•	Opt	Opt		
		Pump Down Swite	:h			٠		•		•		•
		Flare Connection			•	٠	•	•	•	•	•	•
	Maintenance	Self-Diagnotic Fu	nction (Check C	ode Display)	•	٠	•	•	٠	•	٠	•
		Failure Recall Fun	ction		•	٠	•	•	•	•	•	•

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.



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 insertmolding, 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 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.





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.



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.

Control 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 E		Energy consumption
	OFF	OFF	100%
	ON	OFF	75%
ON	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.



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



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)

Operating range



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.

Mr.SLIM

4-way Ceilingcassette

(PLY-SP-EA SERIES)



PLY-SP18/24/30/36/48EA (3D i-see Sensor: optional)





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 far contribute to the realisation of quieter operation.



3D [¥]-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

By measuring the inter temperature and noor 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 airconditioning 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.



**% is room occupancy rate.

Indirect Airflow

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)



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.





	Vanes	setting				
	Direct Indirect					
Cooling	horizontal \rightarrow 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.



Mr.SLIM

Remote controller for PLY-SP-EA

Wireless Remote Controller PAR-SL100A-E



3D i-see Sensor (Optional)

(Direct/Indirect Airflow) Pressing the i-see button enables direct or indirect setting of all vanes.



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.

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

Panel and remote controller

					Included parts				
Part model name	Description	Standard panel	Wireless signal receiver	3D i-see sensor	Wired controller (PAR-21MAA)	Wired contro ll er (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)	v	 ✓ 				✓		
PLP-6EALM	Panel with receiver and wireless remote controller (SL100)	v	 ✓ 					✓	
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					~			

Features (PAR-SL100A-E)



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.





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





Easy Installation and Maintenance

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.



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.







Lightweight decorative panel



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.
 Long-life filter (2500hr)* 	 High-ceiling application 	operating temp. of 52°C
 Self-diagnostic function 	Computerized dehumidifier	-
Filter indicator	Quiet operation	
(for wired remote controller)	Bacteria-and	1
 Flockless vanes 	mold-resistant filter	

*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-SP48EA
Cooling capacity (Min-Max) kW			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)	14 1 (7.0-14 1)
Cooling capacity BTU/h			BTU/h	18,000	24,000	30,000	36,000	48,000
Total inpu	ut		kW	1.60	2.17	2.48	3.52	6.02
EER			W/W	3.31 3.27 3.54		3.01	2.34	
ISEER			W/W	4.50	4.50	4.50	4.30	3.54
	Model name			PLY-SP18EA	PLY-SP24EA	PLY-SP30EA	PLY-SP36EA	PLY-SP48EA
	Power supply				1ph 220-240V 50Hz		1ph 220-240V 50Hz	1ph 220-240V 50Hz
	External finish				Munsell 1.0Y 0.2/9.2		Munsel 1.0Y 0.2/9.2	Munsell 1.0Y 0.2/9.2
	A	a da A	CMM	16-17-19-21	16-18-21-23	19-23-26-29	21-25-28-31	24-26-29-32
	Airflow (low-med2-med1-hi	gn) -	CFM	565-600-670-740	565-635-740-810	670-810-920-1025	740-885-990-1095	850-920-1025-1130
Indoor	External static pressure		Pa		0 (direct blow)		0 (direct blow)	0 (direct blow)
unit	Opearation control and the	rmos	tat		Remote-control & Built-in		Remote-control & Built-in	Remote-controll & Built-in
	Noise level (low-med2-med1-h	nigh)	dB (A)	28-30-32-35	28-31-34-37	31-34-37-41	32-37-41-43	36-39-42-44
	Unit drain pipe (outer diame	eter)	mm		32		32	32
		W	mm	840 (950)			840 (950)	840 (950)
	Dimensions (panel)	anel) D mm			840 (950)		840 (950)	840 (950)
			mm	258	(40)	298 (40)	298 (40)	298 (40)
	Weight (panel)		kg	21 (5) 24 (5)		24 (5)	27 (5)	27 (5)
	Model name			SUY-SA18VA2	SUY-SA24VA2	SUY-SA30VA2	PUY-SP36YKA2	PUY-SP48YKA2
	Power supply				1ph 220-240V 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	
	Refrigerant (R410A) contro			Linear expansion valve			Linear expansion valve	Linear expansion valve
	A1 41		CMM	27	46	51	75	87
	Airflow		CFM	953	1625	1800	2648	3071
Outdoor	Noise level		dB (A)	47	52	54	52	56
unit		w	mm	800	8	40	1050	1050
	Dimensions	D	mm	285	3	30	330	330
		н	mm	550	8	80	981	981
	Weight	<u> </u>	kg	32	49	50	65	73
	Max. height difference		m	12	15	15	30	30
	Max. piping length		m	20	30	30	50	50
Pipe size (outer diameter)			mm	Liquid: 6.35 Gas: 12.7		i: 9.52 15.88	Liquid: 9.52 Gas: 15.88	Liquid: 9.52 Gas: 15.88
		Upp	er limit (DB)		52		52	52
Guara	nteed Opearating Range		er limit (DB)		18		18	18
BEE S	tar Rating				POWER SATURGS		_	

• 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



Ceilingconcealed

(PEY-SP SERIES)



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

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



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.





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



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 numn (ontional)		



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-SP48JA(L)2
Cooling o	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)	14.1 (7.0 -14.1)
Cooling capacity BTU/h			BTU/h	18,000	24,000	30,000	36,000	48,000
Total inp	ut		kW	1.72	2.16	2.50	3.66	5.73
EER			W/W	3.08	3.28	3.52	2.90	2.46
	Model name			PEY-SP18JA(L)	PEY-SP24JA(L)	PEY-SP30JA(L)	PEY-SP36JA(L)	PEY-SP48JA(L)
	Power supply				1ph 220-240V 50Hz		1ph 220-240V 50Hz	1ph 220-240V 50Hz
	External finish			Galvanized sheet	Galvanized sheet	Galvanized sheet	Galvanized sheet	Galvanized sheet
	Alaflann (lann andal black)		CMM	12-14.5-17	17.5-21-25	24-29-34	29.5-35.5-42	29.5-35.5-42
	Airflow (low-mid-high)	Ī	CFM	425-510-600	620-740-885	850-1025-1200	1040-1225-1485	1040-1225-1485
Indoor	External static pressure		Pa		35-50-70-100-125		35-50-70-100-125	35-50-70-100-125
unit	Opearation control and the	rmos	tat		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
	Unit drain pipe (outer diam	eter)	mm		32		32	32
		W	mm	900	1100	1400	1400	1400
	Dimensions	D	mm	732	732	732	732	732
		н	mm	250	250	250	250	250
	Weight (panel) kg		kg	27	29	38	39	39
	Model name			SUY-SA18VA2	SUY-SA24VA2	SUY-SA30VA2	PUY-SP36YKA2	PUY-SP48YKA2
	Power supply			1ph 220-240V 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
	Refrigerant (R410A) contro	bl			Linear expansion valve		Linear expansion valve	Linear expansion valve
	A: (1		CMM	27	46	51	75	87
	Airflow	Ì	CFM	953	1625	1800	2648	3071
Outdoor	Noise level		dB (A)	47	52	54	52	56
unit		W	mm	800	84	40	1050	1050
	Dimensions	D	mm	285	33	30	330	330
		н	mm	550	88	30	981	981
	Weight	-	kg	32	49	50	65	73
	Max. height difference		m	12	15	15	30	30
	Max. piping length		m	20	30	30	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	
	Pipe size (outer diameter)			040.12.7		52		
Guara	Pipe size (outer diameter)	<u> </u>	er limit (DB) er limit (DB)				52	52 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)

Mr.SLIM

Floorstanding

(PSY SERIES)



PSY-SP36/42/48KA





Installation of this floor-standing series is easy and guick. 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.

Adoption of "open-and-close grille" simplifies removal of filter D for cleaning. *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

Comfort	Others
Auto-louver	System control
 Computerized dehumidifier 	Auto restart
 Quiet operation 	Outdoor unit max. operating
	temp. of 52°C
	Auto-louver Computerized dehumidifier

May vary according to operating conditions.

SPECIFICATIONS

Floor-standing PSY SERIES

Models				PSY-SP36KA	PSY-SP42KA	PSY-SP48KA			
Cooling capacity (Min-Max) kW			kW	10.6 (4.0-10.6)	12.3 (6.1-12.3)	13.4 (6.7-13.4)			
	BTU/h			36,000	42,000	45,700			
	Fotal input kW			3.65	4.06	5.86			
EER	EER W/W			2.90	3.02	2.28			
ISEER			W/W	3.83	3.81	3.34			
	Model name			PSY-SP36KA					
	Power supply				1phase 220-240V 50Hz				
	External finish				Munsell 0.7Y 8.59/0.97				
	Airflow		CMM		25-28-31				
	(low-med2-med1-high)		CFM		885-990-1090				
Indoor	External static pressure		Pa		0 (direct blow)				
unit	Opearation control and thermostat				Built-in				
ci iii	Noise level (low-mid2-mid1-high) dB (A)				45-49-51				
	Unit drain pipe (outer diamet	er)	mm		26				
		W	mm						
	Dimensions	D	mm		360				
		Н	mm		1,900				
	Weight kg		kg	48					
	Model name			PUY-SP36YKA2	PUY-SP42YKA2	PUY-SP48YKA2			
	Power supply				3phase 380-415V 50Hz				
	External finish				Munsell 3.0Y 7.8/1.1				
	Refrigerant (R410A) con	trol		Linear expansion valve					
	Airflow		CMM	7	75				
	Annow		CFM	2,6	648	3,071			
	Noise level		dB (A)	52	53	56			
Outdoor		W	mm		1,050				
unit	Dimensions	D	mm		330				
		Н	mm		981				
	Weight		kg	65	73				
	Max. height difference		m	30					
	Max. piping length m		m		50				
	Pipe size (outer diameter)		mm	Liquid: 9.52 Gas: 15.88					
Guarant	eed Opearating Range		per limit (DB)		52				
		Lov	ver limit (DB)		18				

• 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**

om 28.5°C

28.5°C \$ *

14:30 Fri

(1)

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. PAR-31MAA

Display Example [Operation Mode]



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 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





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

Easy-to-Read & Easy-to-Use

m 28.5℃ 28.5°C \$ *

PAR-31MAA (Optional)

4:30 Fr

3

MEET

11

E 3 ~



Multi-language Display **Control panel operation in eight** different languages Choose the desired language from among the following.

[English]	[Spanish]	[Italian]	[German]	[French]	[Russian]	[Portuguese]	[Swedish]
Cool	Frío	Raffred	Kühlen	Froid	Охлажд.	Frio	Kyla
*	糀	糀	棥			*	棥

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)





Mr.SLIM



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

Dot Liquid-crystal Display Adopted



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

Canaaitu	Between indoor	and outdoor units	Dina aiza (mm. autar dia)	Thistory (mar)	
Capacity	Max. height difference (m) Max. piping length (m)		Pipe size (mm, outer dia.)	Thickness (mm)	
	10	00	Liquid:ø6.35	t 0.8	
SUY-SA18	12	20	Gas: ø12.7	t 0.8	
0104 04 04 00	15	22	Liquid: ø9.52	t 0.8	
SUY-SA24/30		30	Gas: ø15.88	t 1.0	
PUY-SP36	20	50	Liquid: ø9.52	t 0.8	
PUY-SP42 PUY-SP48	30	50	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	Galculation
SUY-SA18	1.2	0.05	0.12	0.2	—	—	—	_	—	—	$Xg = 15g/m \times (length-7)m$
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



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

OPTIONAL PARTS

Optional Parts

Part Nam	ie	Model name	Applicable models		
Drain pump		PAC-DRP06SL-E	PEY-SP		
M-NET and Terminal interface		MAC-334IF-E	All indoor units		
M.Contene or second a second second		PAR-SL100A-E	PLY-SP-EA		
Wireless remote controller		PAR-SL97A-E	PLY-SP / PEY-SP		
Wireless remote controller		PAR-SA9CA-E	PEY-SP		
signal receiver		PAR-SE9FA-E	PLY-SP-EA		
		PAR-SA9FA	PLY-SP-BA		
High-efficiency filter element		PAC-SH59KF-E	PLY-SP		
		PAC-KE92TB-E	PEY-SP18		
Filter box		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		
		PAC-SJ37SP-E	PLY-SP-EA		
Shutter plate		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		
		PAC-SJ65AS-E	PLY-SP-EA		
Space panel		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		
		MAC-881SG	SUY-SA18		
Air outlet guide		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		
oon ti pipe	(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

Mr.SLIM

Main Optional Parts



The MEQ Difference



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 INDIA PVT. LTD.

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"For E-waste Collection & Disposal process: Customer can get complete details of company process on collection, disposal of e-waste product (i.e. 'Mitsubishi Electric' make Air Conditioner) and incentive / exchange scheme for returning of e-waste on Company website (www.MitsubishiElectric.in) or by calling on Toll free number 1800 102 2626.



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