4-way ceiling-cassette

PLY SERIES (R32 MODELS)

(3Di-see Sensor: optional)



PLY-ZM18/24/30/36/45EA-AE [SA, GU]


*optional


optional


*optional


optional

* Signal receiver is required.



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. Direct line-based square design enables designs of ceiling to match the design of direct line type illuminations, thereby creating a beautiful space.



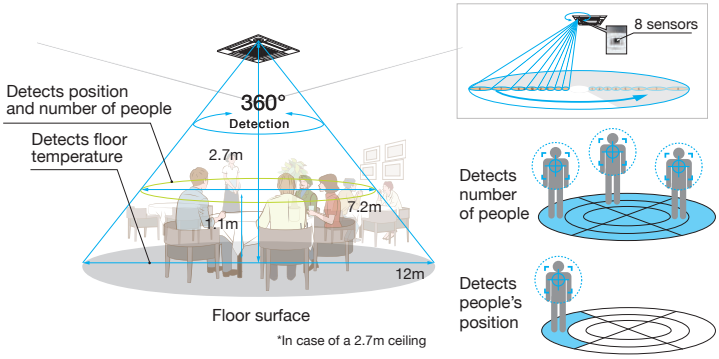
3D i-see Sensor



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 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 (3D i-see Sensor: optional)

Room occupancy energy-saving mode

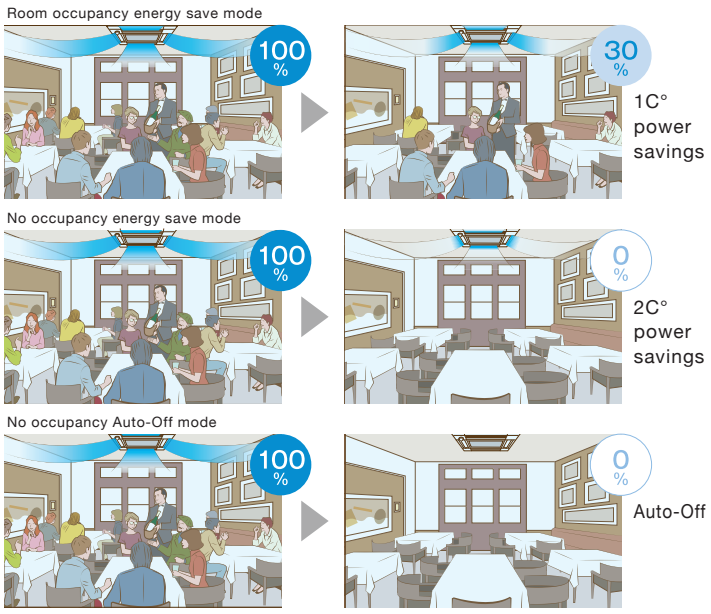
The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air-conditioning power. When the occupancy rate is approximately 30%, air-conditioning power equivalent to 1°C 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-41MAA is required for each setting
**% is room occupancy rate.

Detect People's Position (3D i-see Sensor: optional)

Direct/Indirect settings

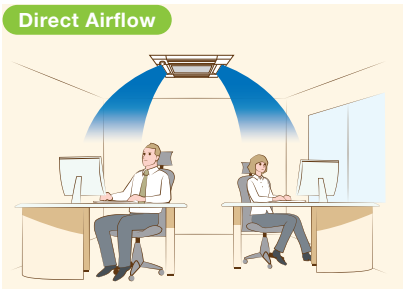
Some people do not like the feel of wind, some want to be warm from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, it is possible to choose to block or not block to the wind for each vane.

Direct (Downward)



Indirect (Horizontal)







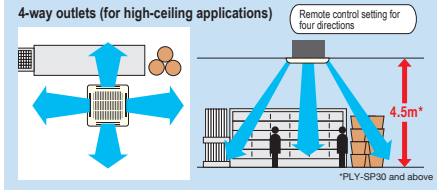
*Only available for models equipped with 3D i-see Sensor.
*PAR-41MAA or PAR-SL100A-E is required for each setting.

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.

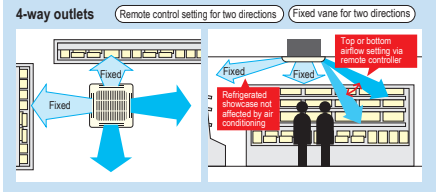
The unique airflow design of the powerful ceiling-cassette models reduces pressure loss and provides wide cool-air coverage from high ceilings to the floor even in expansive spaces like shopping malls with ceilings over 4 metres in height.



For Retail Outlets (e.g. grocery stores)

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

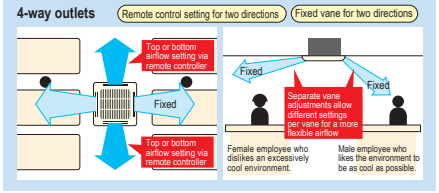
Individual vane angle adjustment enables precise airflow control to specific areas of the store to reduce unnecessary air conditioning of areas such as refrigerated showcases.



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.

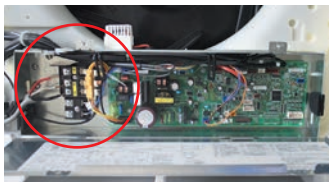


Easy Installation and Maintainance

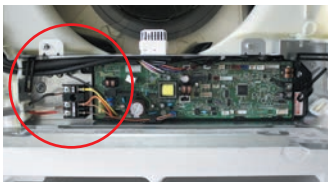
Electrical box wiring

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 (PLY-P**BA)



■ New model (PLY-ZM**EA)



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 (PLY-P**BA)



■ New model (PLY-ZM**EA)



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.



Automatic Grille Lowering Function (PLP-6EAJ)

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.



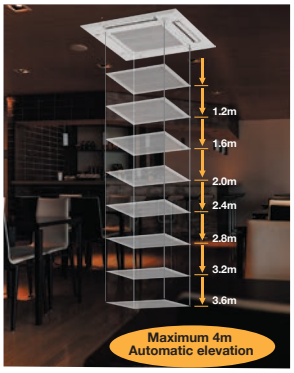
Grille Elevation Remote Controller
(comes with the automatic elevation panel)



Wired Remote Controller
PAR-41MAA



Wireless Remote Controller
PAR-SL101A-E



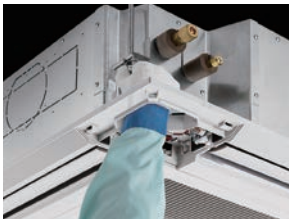
Fresh-air Intake

Indoor air quality is significantly enhanced by the direct intake of fresh air from outside. An optional multi-function casement (PAC-SJ41-TM-E) is also available for the intake of a larger volume of air.



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.



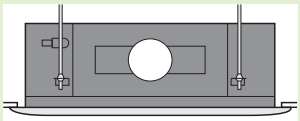
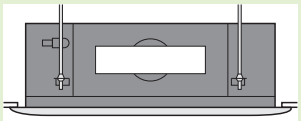
Drain Water Lifting Mechanism

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.



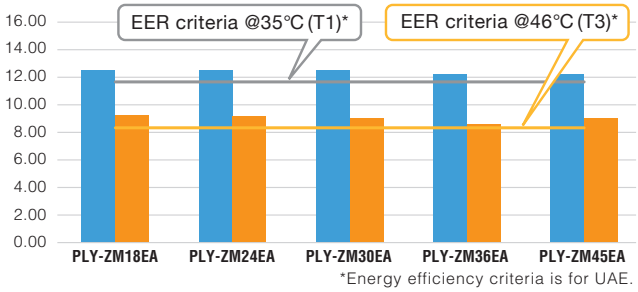
Compatible with Round and Rectangular Ducts

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

Connecting to round ducts	Connecting to rectangular ducts
	
150mm diameter cutout	350mm x 100mm cutout

High Energy Efficiency

The classes from low-capacity (18,000Btu) to high-capacity (45,000Btu), have achieved high energy efficiency not only rated condition (35°C), but even at high ambient 46°C.



*Energy efficiency criteria is for UAE.

EER@35°C (T1) EER Btu/h/W EER@46°C (T3) EER Btu/h/W

*For UAE models (-AE) (Specifications at 230V)

P series Inverter models Specification

4-way celling-cassette (-AE, -SA, -GU)

Indoor				PLY-ZM18EA	PLY-ZM24EA	PLY-ZM30EA	PLY-ZM36EA	PLY-ZM45EA	
Outdoor			-AE	SUY-ZM18VA	SUY-ZM24VA	SUY-ZM30VA	PUY-ZM36VKA	PUY-ZM45VKA	PUY-ZM45YKA
			-GU						-
			-SA	SUY-ZM18NA	SUY-ZM24NA	SUY-ZM30NA	PUY-ZM36NKA	PUY-ZM45NKA	PUY-ZM45XKA
Power supply (Outdoor)			-AE, -GU	V	220 - 240 / Single / 50				380-415/Three/50
			-SA		220 / Single / 60				380 / Three / 60
Refrigerant					R32				
T1		Capacity (Min-Max)		kW	5.31 (2.80-5.40)	7.10 (3.60-8.90)	8.80 (4.10-9.70)	10.60 (4.10-10.70)	13.20 (6.20-15.00)
				Btu/h	18,100 (9,554-18,425)	24,200 (12,283-30,367)	30,000 (13,989-33,096)	36,200 (13,989-36,508)	45,000 (21,154-51,180)
		Total input		kW	1.448	1.936	2.400	2.979	3.704
		EER		Btu/h/W	12.50			12.15	
T3		Capacity		kW	4.77	6.39	7.50	9.55	11.90
				Btu/h	16,300	21,800	25,600	32,600	40,600
		Total input		kW	1.753	2.370	2.844	3.820	4.511
		EER		Btu/h/W	9.30	9.20	9.00	8.55	9.00
Operating Current			-AE	A	7.90	10.60	12.90	17.20	20.20	7.60
			-SA		8.20	11.10	13.50	17.90	21.10	8.00
			-GU		6.30	8.40	10.60	13.00	16.10	6.20
Indoor Unit	Power Input	Rated		kW	0.03	0.04	0.09			
	Running Current	Rated		A	0.33	0.43	0.91		0.99	
	Dimension<Panel>	H*W*D		mm	258*840*840 <40*950*950>		298*840*840 <40*950*950>			
	Net weight<Panel>			kg	19 <5>	21 <5>	27 <5>			
	Air Volume (Slo-Lo-Med-Hi-SHi)			m^3/min	14-16-17-18	16-17-19-21	21-25-28-31		24-26-29-32	
	Sound level (SPL)(Slo-Lo-Med-Hi-SHi)			dB(A)	27-29-31-32	28-30-32-35	32-37-41-43		36-39-42-44	
Outdoor Unit	Dimension	H*W*D		mm	714*800*285	880*840*330		981*1050*330	1338*1050*330	
	Net weight			kg	38	48	46	65	100	102
	Air Volume			m^3/min	45.6	63.4		87	116	
	Sound level (SPL)			dB(A)	51	54			55	
	Breaker Size			A	16	20		25	40	25
Piping	Piping diameter	Liquid-Gas		inch	1/4 - 1/2	3/8 - 5/8				
	Max piping length	Out-In		m	30		50		55	
	Max Height deffierence	Out-In		m	20	25	30		30	
Guaranteed Operation Range (Outdoor)					18-52					

* Specifications are based on the following condition.
  T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.
  T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.
* Unit is able to operate up to 52 deg C based on the testing condition of UAE S/ISO 13253:2011
* T1 and T3 are specifications at 230V.
* Operating current specifications are at 220-230-240V.