





# PRODUCT LINE-UP



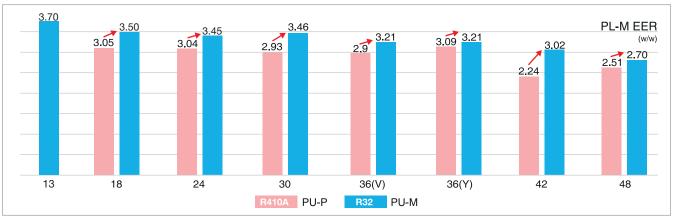
Note: Up to 23,200 Btu/hr entitled for 2 years general warranty and 5 years compressor warranty. From 30,000 Btu/hr to 48,100 Btu/hr is entitled for 1 year warranty and 5 years compressor warranty. PU-M\*\*VAK - Single Phase PU-M\*\*YAK - Three Phase



### MAJOR FEATURES

#### **High Energy Efficiency**

Using the latest R32 refrigerant technology, the R32 SLIM series lessens global warming impact, refrigerant charge, while providing higher cooling capacity and better heat transfer compared to R410A refrigerant. Hence, it improves COP for all new R32 SLIM series which promotes higher energy efficiency for all models in the series.



Specifications reported are figures when PL-P\*\*BAK/PL-M\*\*EAK is connected.

#### **Improved Cooling Capacity**

This new line-up provides optimum performance which is ideal for variety application with its improved cooling capacity."

	Rated Cooling Capacity (BTU/h)					
Capacity Class	R410A PL-P	R32 PL-M	Improvement (%)			
18	17,400	18,800	6%			
24	22,500	23,200	3%			
30	28,300	30,000	6%			
36 (V) (Y)	35,500	36,100	1%			
42	42,300	42,800	1%			
48	45,000	48,100	6%			

#### Light weight and compact size (36/42/48)

The new line-up offers space-saving solution with its compact design and light weight, for ease of installation.



# 4-way Ceilingcassette

(PL SERIES)



PL-M13/18/24/30/36/42/48EAK













#### Automatic Air-speed Adjustment

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













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

#### Better Aesthetic View

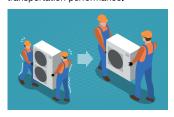
Conventional outdoor units may compromised aesthetic view. With the new compact design, the new line-up can be installed in locations while maintaining its aesthetics.





#### Easy Transportation and Installation

The reduced weight and height allows ease of carry and installation, thus better transportation performance.





Transportation improves due to unit's low height. The unit can even be transported by minivan.

A sophisticated design that matches variety of rooms and offers high level of convenience by enhancing quality of life, all combined into this compact, multi-functional indoor unit.

#### Longer Piping (18/24/30/36)

This new line-up offers more installation flexibility with its piping length and

Capacity Class	Max. Piping L	ength (m)	Max. Height Difference		
	R410A PU-P	R32 PU-M	R410A PU-P	R32 PU-M	
18/24	30	35	10	20	
30	30	50	15	30	
36 (V) (Y)	40	50	30	30	
42/48	50	50	30	30	

### **Blue Fin Condenser**

A special coating is applied to the heat exchanger to increase corrosion toughness.



#### 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 compared to conventional models also contribute to increased comfort for occupants.



#### **Less Cold Draft**

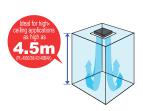
The horizontal airflow function prevents cold drafts from striking the body directly, thereby keeping the body from becoming chilled.



Horizontal airflow prevents drafty feeling

#### Wide-flow Air Outlet

The high-power ceilina cassettes 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

Specification according to ceiling height (Unit: r								
	Р	L-M18/24EA	ιK	PL-N	130/36/42/48	BEAK		
	Low ceiling*	Standard	High ceiling	Low ceiling*	Standard	High ceiling		
-way	2.5	2.7	3.5	2.7	3.2	4.5		

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

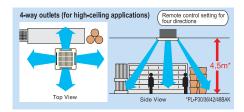
Mitsubishi Electric dealership since there is some risk of condensation.

#### **Vane Control**



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

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

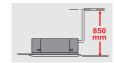


#### Fresh-air Intake

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

#### **Drain Water Lifting Mechanism**

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



#### **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 fixed position.



#### "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.



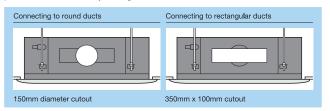
Power flow fan

#### **Bacteria and Mold resistant Specifications**

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

#### **Compatible with Round and Rectangular Ducts**

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



#### **Corner Pocket Design**

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



#### **Unit Height**

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



#### **Other Features**

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

# Automatic Grille Lowering Function (Option)

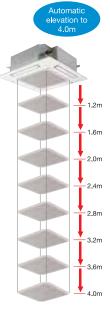
#### Easy to use/Simple maintenance

An automatic grille lowering function capable of stopping at eight different height levels allowing filter maintenance to be simplified.



Elevating (up-down) controller

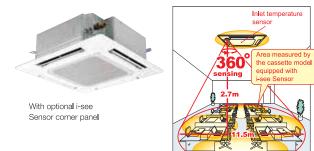
(comes with the automatic elevation panel)





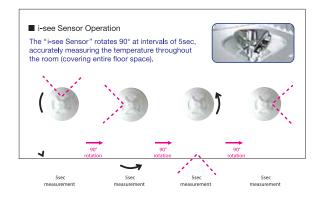
#### (optional corner panel)

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



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

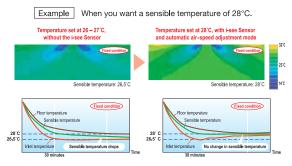
The "i-see Sensor" is an innovative Mitsubishi Electric technology that uses a radiation-based sensor to monitor temperature through out an entire room. When connected to the air conditioner control panel, the "i-see Sensor" works to maximize room comfort.



# 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



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.

# **FEATURES SUMMARY**

Performance	Comfort	Easy Installation & Maintenance	Cleanliness
<ul> <li>High energy efficiency</li> <li>Improved cooling capacity</li> <li>Longer piping</li> <li>Light weight</li> <li>Compact design and easy installation</li> <li>On/off operation timer</li> </ul>	<ul> <li>Wide airflow</li> <li>Less cold draft</li> <li>i-see sensor</li> <li>Quiet operation</li> </ul>	<ul> <li>Auto grille lowering *optional</li> <li>Unit height</li> <li>Drain water lighting (850mm)</li> <li>Handy corner pocket</li> <li>Long-life filter (2500hr) *optional</li> <li>Self-diagnostic function</li> <li>Filter indicator</li> <li>Grooved piping</li> </ul>	<ul> <li>Bacteria and mold resistant filter</li> <li>Smudge/draft-free</li> <li>Fresh-air intake</li> <li>Computerized dehumidifier</li> </ul>

## **SPECIFICATION PL SERIES**

Models		PL-M13EAK-PA	PL-M18EAK-PA	PL-M24EAK-PA	PL-M30EAK-PA	PL-M36EAK-PA	PL-M36EAK-PA	PL-M42EAK-PA	PL-M48EAK-PA		
Cooling capacity kW			4.00	5.50	6.80	8.80	10.60	10.60	12.55	14.10	
Cooling	apacity	BTU/h 13,600 18,800 23,200 30,000						36,100	36,100	42,800	48,100
Total inpu	ut		kW	1.08 1.55 1.97 2.54 3.30 3.30 4.15						5.22	
EER			W/W	3.70	3.55	3.45	3.46	3.21	3.21	3.02	2.70
CSPF			kWh/kWh	3.93	3.77	3.67	3.68	3.41	3.41	3.21	2.87
	Model name		PL-M13EAK-PA	PL-M18EAK-PA(-MY)	PL-M24EAK-PA(-MY)	PL-M30EAK-PA(-MY)	PL-M36EAK-PA	PL-M36EAK-PA	PL-M42EAK-PA	PL-M48EAK-PA	
	Power supply		1ph 220-240V 50Hz								
	External finish			Munsell 1.0Y 9.2/0.2							
	Al-di (l	- Laste V	CMM	14-16-17-18	16-17-19-21	16-18-20-23	19-23-26-29	21-25-28-31	21-25-28-31	21-25-28-32	24-26-29-32
	Airflow (low-med2-med1-l	nign)	CFM	494-565-600-636	565-600-671-742	565-636-706-812	671-812-918-1024	742-883-989-1095	742-883-989-1095	742-883-989-1130	848-918-1024-113
	External static pressure		Pa			•	0 (dire	ct blow)			
Indoor	Opearation control and thermostat						Remote contr	rol and Built-in			
unit	Noise level		dB (A)	27-29-31-32	28-30-32-35	28-31-34-37	31-34-37-41	32-37-41-43	32-37-41-43	32-37-41-44	36-39-42-44
	Unit drain pipe		mm				3	32			
		W	mm	840(950)							
	Dimensions (panel)	D	mm	840(950)							
	н		mm		258 (40)				298 (40)		
	Weight (panel)		kg	19(5)	21	(5)	24(5)		26(5)		
	Model name		PU-M13VAK-PA	PU-M18VAK2-PA	PU-M24VAK2-PA	PU-M30VAK2-PA	PU-M36VAK2-PA	PU-M36YAK2-PA	PU-M42YAK2-PA	PU-M48YAK2-PA	
	Power supply			1ph 220-240V 50Hz 3ph 380-415V 50Hz							
	External finish			Munsell 3.0Y 7.8/1.1							
	Refrigerant (R32) control			Capaillary Tube							
	Airflow CMM (CFM)			31.7 (1119)	32 (1130)	59 ( 2084 )	50 ( 1765 )		92 ( 3249 )		
	Noise level		dB (A)	50	53	56	55	5	54 56		
Outdoor		W	mm	7	18	8	840 1050				
unit	Dimensions D		mm		55	330		330			
		Н	mm	5.	25	8	80	981			
	Weight		kg	31.5	34	51	63	81	82	84	86
	Max. height difference m		10	20		30					
	Max. piping length m		20	35 50							
	Pipe size (outer diameter) mm		Liquid: 6.35 , Gas: 12.7 Liquid: 6.35 ,Gas: 15.88		Liquid: 9.52 , Gas: 15.88						
	Chargeless piping length m			7.5							
Guarar	nteed Opearating Range	eed Opearating Range Upper limit (DB)				16	46				
		Lowe	er limit (DB)	21				21			

- \*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): 1ph 230V 50Hz, 3ph 400V 50Hz
- \*The sound pressure meaurement is conducted in an anechoic chamber under the test conditions of Japanese industrial Standards.
- \*The actual sound level depends on the distance from the unit and acoustic environment.





#### MITSUBISHI ELECTRIC SALES MALAYSIA SDN BHD (197101000755)

Lot 11, Jalan 219, PO Box 1036, 46860 Petaling Jaya,

Selangor Darul Ehsan, Malaysia.

Hotline: 1-300-13-1303 Fax: 03-7956 3950 Website: www.mitsubishielectricmalaysia.com



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Mitsubishi Electric Consumer Products and Mitsubishi Electric Shizuoka Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality Warranties for the production of air conditioning equipment. The plant also acquired environmental management system standard ISO 14001 certification.

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Penang: 25-G, Pusat Perniagaan Perdana Jaya,

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