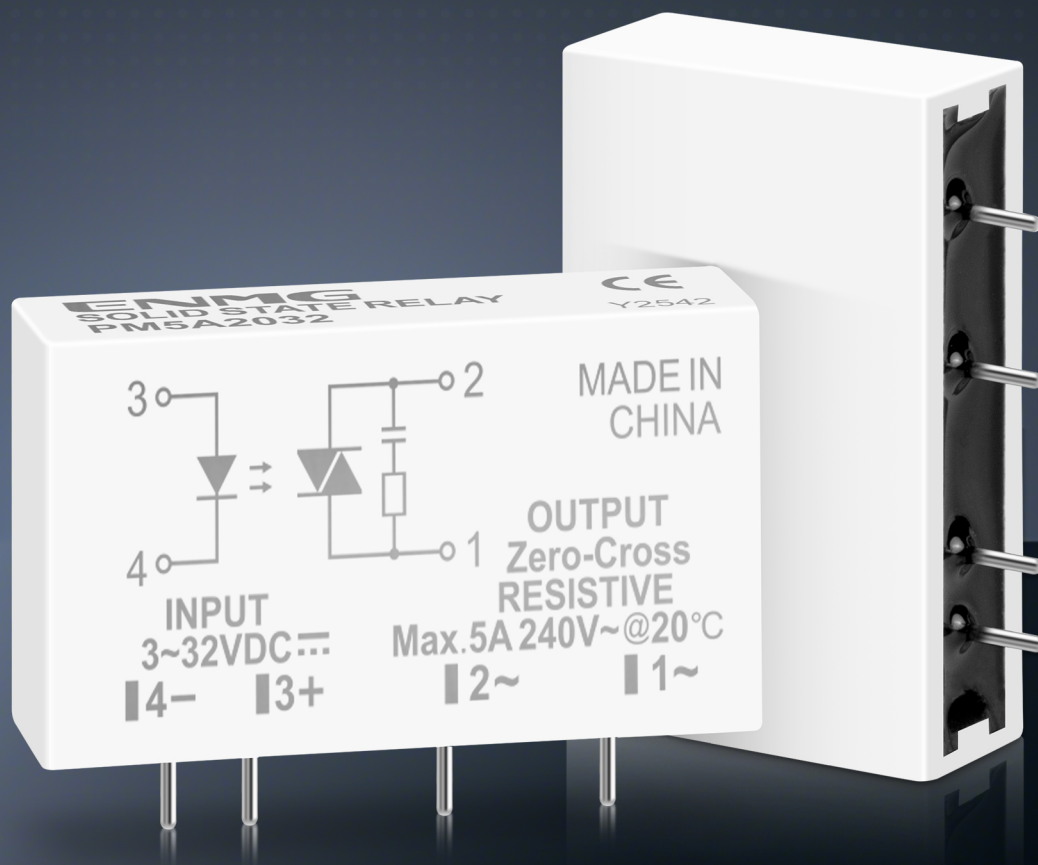


Alumina Ceramic Shell

Solid State Relay PM

Optocoupler Isolation | PCB Printing | Inductive Load



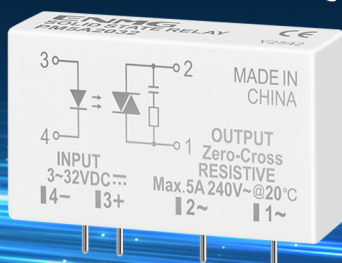
Upgrade from Plastic to Ceramic

New Generation Ceramic Solid State Relay

Abandon traditional plastics and adopt alumina ceramic materials as the housing for solid-state relays.

20⁺ Times

Heat Dissipation Improvement



Alumina Ceramic

Core Advantages of Alumina Ceramic Shells

Improve heat dissipation performance by more than 20 times

High Thermal Conductivity, High Insulation, High Reliability.

- **Alumina Ceramic:** An excellent thermal conductive material. Its thermal conductivity is usually between **20-30 W/(m·K)**, which is much higher than that of ordinary plastics.

- **Plastic Shell:** Extremely low thermal conductivity. It is usually around **0.2-0.3 W/(m·K)**.

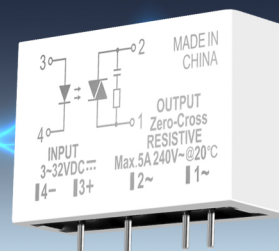
Core Significance

The core semiconductor devices (MOSFET, Triac) of solid-state relays generate a large amount of heat when they are turned on. The ceramic shell can quickly conduct the heat generated by the chip to its surface, and then dissipate the heat into the environment through convection and radiation, which greatly reduces the operating temperature of the chip.

Optocoupler Isolation

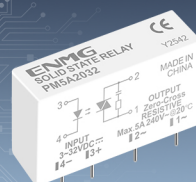
Sensitive Fast

No contacts, no noise, no sparks



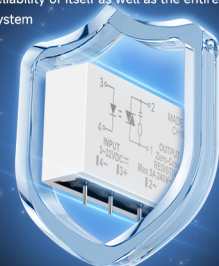
Space-saving

PCB Printing



Built-in RC Surge Absorption Snubber Circuit

The key design to address the challenges of inductive loads and enhance the reliability of itself as well as the entire system



EMC
Suitable for harsh operating environments

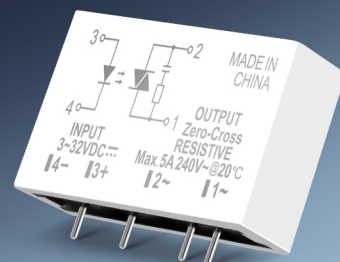
OEM / ODM

Customization

Constant Current Input 3~32VDC

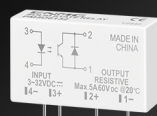
Two Output Types

For DC, triodes are used;
For AC, triacs are used.



PM5D6132

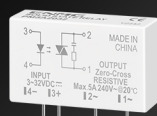
DC-DC



PM5A2032

DC-AC
(Zero-Crossing Triggering)

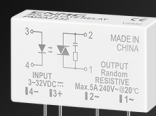
*Suitable for Resistive Loads



PM5A2132

DC-AC
(Random Triggering)

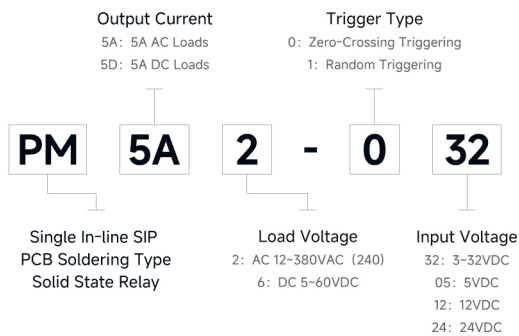
*Suitable for Inductive Loads



Specifications

Model Description

The design of product models and ordering codes is intended to cover all possible specifications of this series of products, and they cannot be combined arbitrarily.If you have any questions during the first selection, please contact the technical service.

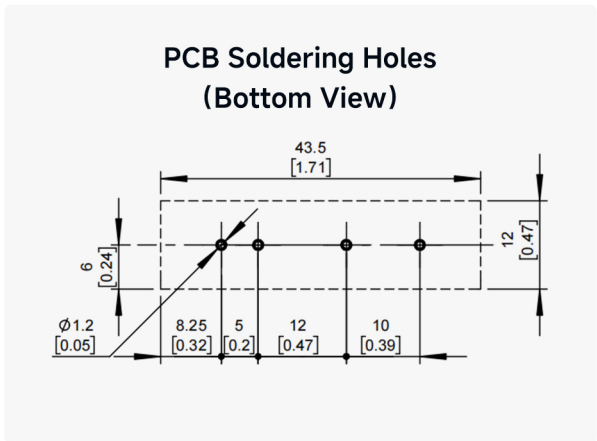
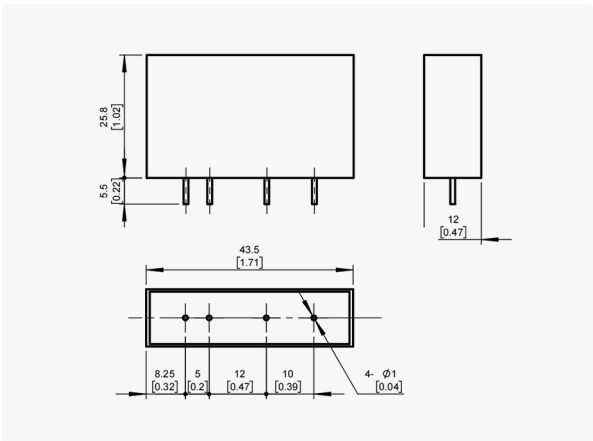


Product Selection Table

	AC Output		DC Output
Model	PM5A2032	PM5A2132	PM5D6132
Trigger Type	Zero-Crossing	Random	Basic Type
On-Off Type	1NO		1NO
Input	Voltage Range	3~32VDC	3~32VDC
	Input Current	< 20mA	< 20mA
	Ensure a Reliable Operating Voltage	> 3VDC	> 3VDC
	Reliable Turn-Off Voltage	< 1VDC	< 1VDC
Output	Max.Allowable Load Current	5A	5A
	Load Voltage	240VAC(12~380VAC) 45~65Hz	5~60VDC
	Non-Repetitive Inrush Current	120A	16A
	Peak Withstand Voltage	600Vpeak	60Vpeak
	Forward Voltage Drop	Max 1.2V at 5A	Max 1.3V at 5A
	Leakage Current in Off-State	Max 3mA at 240VAC	Max 1mA at 60VDC
	Min.Load Current	20mA	0.02mA
	Operating/Reset Time	Power Supply: 1/2 Cycle+1ms or Less (Random Type: 1ms or Less)	1ms or Less

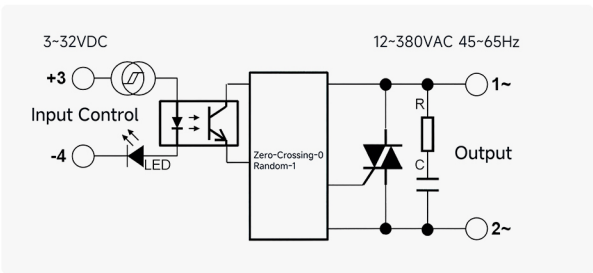
Outline Dimensions / PCB Soldering Pads

Unit: mm, There may be deviations in the dimension data; please refer to the actual product.

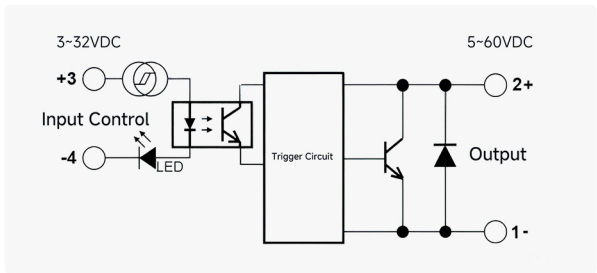


Internal Schematic Diagram

DC-AC (PM5A)



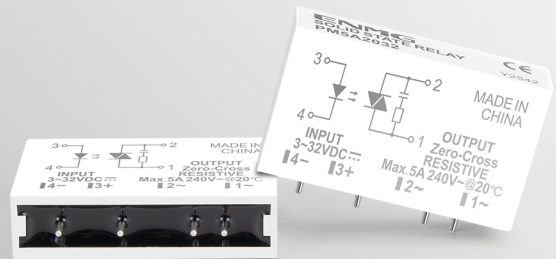
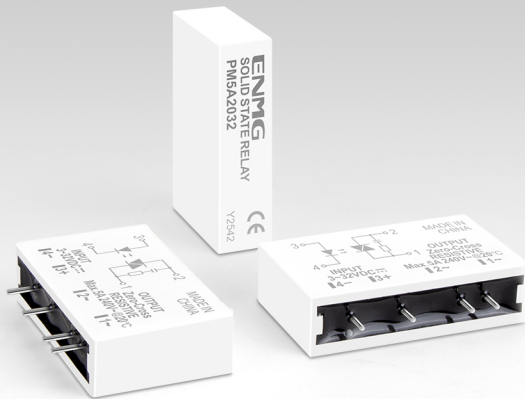
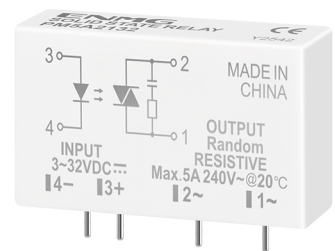
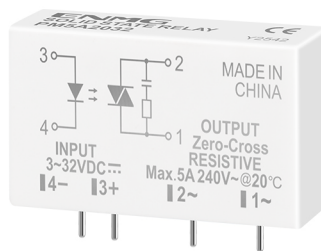
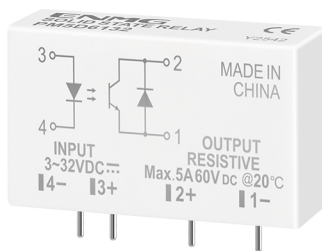
DC-DC (PM5D)



Instructions

1. To prevent load short circuits, please select and equip with a dedicated fast-acting fuse for semiconductor protection;
2. For inductive loads: select a dedicated model, keep adequate current margin, and install an overvoltage absorption device at the output. For highly inductive loads, choose the random type to prevent current asymmetry impacts.
3. When the operating ambient temperature is above 40°C, derating operation is required, and full consideration should be given to ventilation and heat dissipation;
4. When the output terminal is turned off, due to the built-in RC snubber circuit, the main power terminal and the load output terminal are not completely isolated, and the output terminal and the load are still energized. Therefore, an isolating switch must be installed for the main power supply, and the main power supply should be disconnected during equipment maintenance and overhaul.
5. When soldering and installing the printed circuit board, please complete the process within 10 seconds at a temperature below 260°C;

Appearance Display





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公司地址 Address：浙江省乐清市柳市镇柳江路3788号

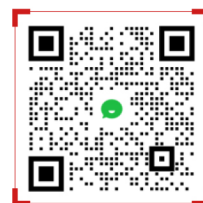
联系方式 Telephones：400-996-2708

官方网站 Website：www.enjue.cc

迪威模型 3D Model：www.3dwhere.com/user/135269



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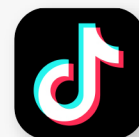
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