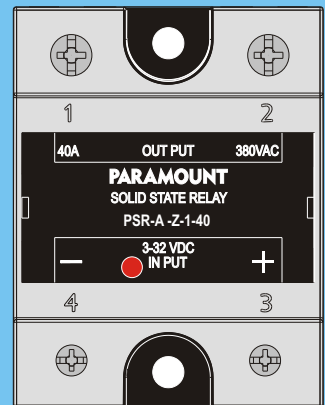
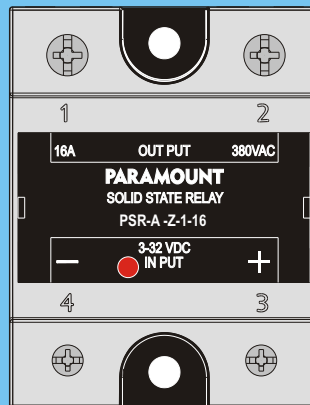
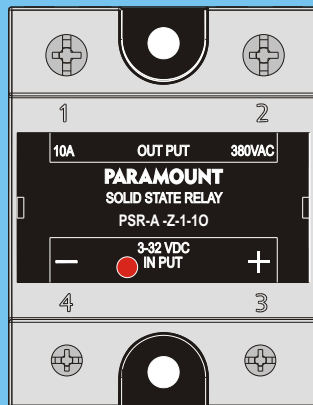
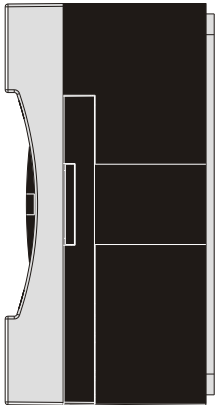


PARAMOUNT

SOLID STATE RELAY

Series PSR



Touch Protective Cover

Input ON LED

Clearly visible numbering



Industrial size combination M5 screw

Special 4 point contact Screw Washer for better holding at the Connector Terminal



Industrial size combination M3 screw

Larger surface area of contact for the 'C' Connector Terminal

STANDARD FEATURES

- Touch Protected cover to meet IP 20 specifications.
- Clearly visible terminal numbering on both Input (3 & 4) and Output (1 & 2) side.
- Insert Moulded Aluminium Heat sink for higher Reliability.
- Standard Mounting Pitch (47.5 mm).
- LED Indicator at the Input
- Larger surface area of contact for the 'C' Connector Terminal
- Special 4 point contact screw with washer for better holding at the Connector Terminal
- Input and Output Connector Screws as per DIN Standards
- Zero Voltage Turn ON and Random Turn ON available
- Input polarity protected (for DC input only)
- RC snubber is provided at the output

DESCRIPTION	TYPES	10 A	16A	25A	40A
INPUT CIRCUIT					
LED Indicator		YES			
Control Voltage Range		DC : 3 to 32 VDC - AC : 100 to 240 VAC			
Control Current		15 mA Max			
OUTPUT CIRCUIT					
Load Current Range		0.1 A to 10 A	0.1 A to 16 A	0.1 A to 25 A	0.1 A to 40 A
Load Voltage Range		35 - 330 VAC / 50 - 480 VAC	35 - 330 VAC / 50 - 480 VAC	35 - 330 VAC / 50 - 480 VAC	35 - 330 VAC / 50 - 480 VAC
Non-repetitive Max. Peak Voltage		600 VAC / 800 VAC	600 VAC / 800 VAC	600 VAC / 800 VAC	600 VAC / 800 VAC
Non-repetitive Max. Peak Current @50Hz 1 full cycle		100 A	160 A	250 A	400 A
Max. off-state Leakage Current		5 mA	5 mA	5 mA	5 mA
On State Voltage Drop		1.6 V max	1.6 V max	1.6 V max	1.6 V max
I^2tA^2S tp 10msec		55	144	340	880
Max. off-state slew rate (dv/dt)		500 V / μ s	500 V / μ s	500 V / μ s	500 V / μ s
Operating frequency range		47 Hz ~ 63 Hz	47 Hz ~ 63 Hz	47 Hz ~ 63 Hz	47 Hz ~ 63 Hz
SPECIFICATIONS					
Operate Time max		Z = 12 msec AC & 20 msec DC			
Release Time max		R = 1/2 Cycle for AC & DC= 40 msec			
Output ON Voltage Drop		= 1.6 V RMS			
Insulation Resistance		100 Mega Min. @ 500VDC(between input & output)			
Dielectric strength		3.5 K VAC (between input and output)			
Ambient Temperature		- 20° C to + 70° C			
Heat Sink Capacity @ Max. Load Current		3.5° C/W	2.1° C/W	1.0° C/W	0.8° C/W

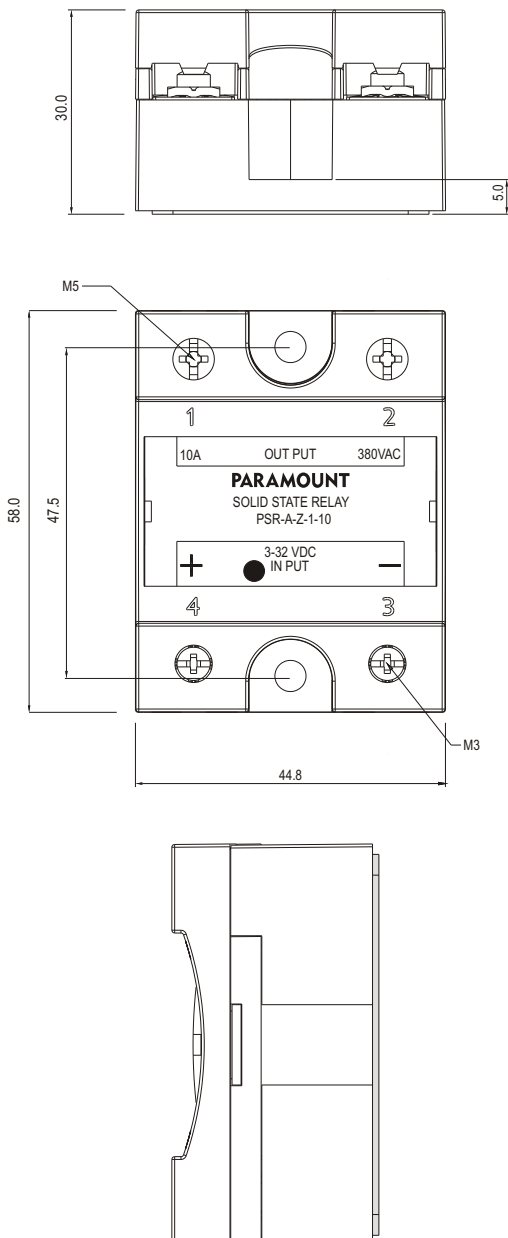
APPLICATIONS

- Household Appliances
- Temperature Control System
- Industrial Automatic Control
- Lighting System
- Office Appliances
- Factory Appliances

SOLID STATE RELAY



DIMENSIONS



Note : All dimensions in mm

SPECIFICATION

Dimension (LxBxH)mm	-	58 x 44.8 x 30 mm
Mounting	-	Panel Mounting
Weight	-	80 gms approx.

ORDERING INFORMATION

PSR
 1 2 3 4 5

1. MODEL NUMBER

PSR : Solid State Relay

2. INPUT VOLTAGE AC / DC

- A: 3 VDC to 32 VDC
- B: 115 VAC (85 VAC - 130 VAC Operating Range)
- C: 230 VAC (170 VAC - 250 VAC Operating Range)
- D: 100 VAC to 230 VAC

3. SWITCHING MODE

- Z: Zero Cross Over
- R: Random

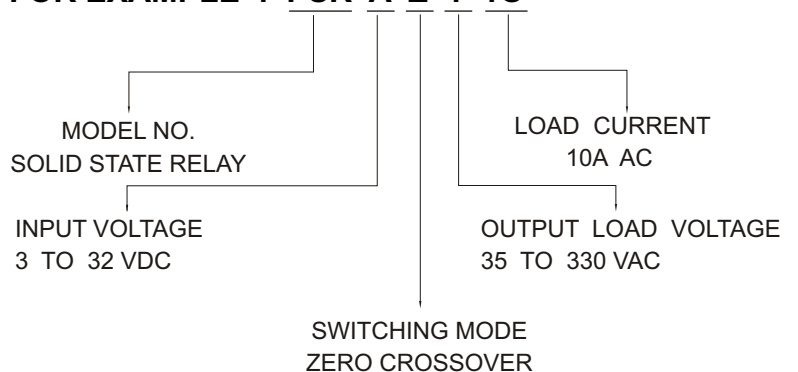
4. OUTPUT LOAD VOLTAGE

- 1 : 35 TO 330 VAC
- 2 : 50 TO 480 VAC
- 3 : For DC output load voltage contact factory

5. LOAD CURRENT

- 10 : 10 A
- 16 : 16 A
- 25 : 25 A
- 40 : 40 A

FOR EXAMPLE : PSR A Z 1 10



PRECAUTIONS FOR SAFE USE

1. Always use the Solid State Relay within the rated specification of the manufacturer.

2. Please select the Solid State Relay with a correct voltage and current ratings with margin of safety to prevent accidental failure causing fire and damage to the system and other associated equipments.

3. Heat Dissipation

- Do not obstruct the airflow to the Solid State Relay or Heat Sink on which relay is mounted. Heat generated due to insufficient airflow may cause the output element to short, or cause fire hazard in the Solid State Relay.
- Please make sure to prevent the ambient temperature from rising due to heat dissipated from the Solid State Relay by installing air circulating fan inside the panel with proper ventilation.
- Do not use the Solid State Relay if the Heat Sink Fins are damaged.
- Apply a layer of Heat Sink compound to the heat sink before mounting the Solid State Relay.
- Use the specified Heat Sink or one with equivalent or with better characteristics.

4. Wire the Solid State Relay and tighten screws correctly, observing the following precautions :-

- If the correct size of conductor is not used at the load terminals 1 & 2, the heat generated at the terminals may occasionally result in malfunction and fire. Do not operate if the screws on output terminals are loose.
- Switch off load supply voltage before touching Solid State Relay and wait for atleast 5 minutes to allow the built in capacitor to discharge, to prevent electrical shock hazard.
- For Solid State Relay of 40 A or higher, use crimp terminals of appropriate size for the wire diameter for M5 Terminals.
- Do not carry the control supply and load supply wires in the same conduit / cable duct. There may be an induction in the control voltage conductor from load supply conductor and cause malfunction or damage to the Solid State Relay.
- Tighten the Heat Sink screws securely.

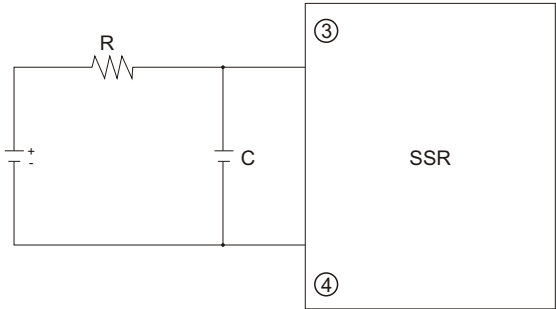
5. Do not transport the Solid State Relay under the following conditions otherwise failure or malfunction may occur.

- Conditions under which the solid state relay will be exposed to water or high humidity without proper packing.

CAUTIONS FOR USE

1. INPUT SIDE

1) Noise and surge protection at the input side . A high noise surge voltage applied to the SSR input circuit can cause malfunction or permanent damage to the device. If such a high surge is anticipated, use C and R noise absorber in the input circuit.

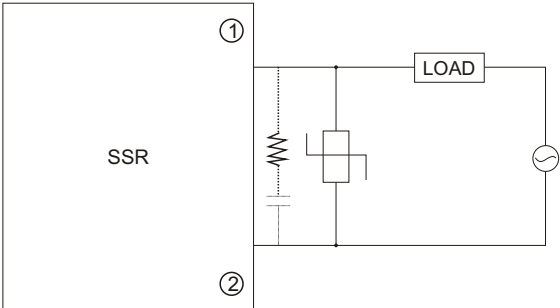


2) The Solid State Relay is provided with reverse polarity protection to input terminal 4 & 3 to avoid damage to the device.

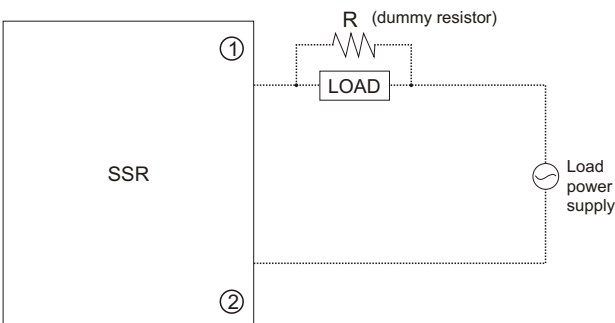
3) In case of control voltage is less than 3V the Solid State Relay may not work and if the control voltage is more than 32 V, it may damage the solid state relay. Avoid control voltage with ripple voltage to avoid malfunction.

2. OUTPUT SIDE (protection against noise & surge)

1) A high noise surge voltage applied to the SSR load circuit can cause malfunction or permanent damage to the device. If such a high surge is anticipated, use a varistor across the SSR output or RC circuit.



2) If the output load is less than the minimum load specified for the Solid State Relay, connect dummy load resistor in parallel to the load. This will avoid malfunction.



PARAMOUNT

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