

Product Data Sheet



- Zero-crossing or Random-on Switching
- Rated Load Current: 10A, 16A, 25A
- With LED Indication
- Internal RC Protection Circuit
- TVS Protection (Optional)
- TRIAC Output

Product Description

SIM series industrial single phase relay with triac output is widely used in industry applications. The relay can be used for resistive, inductive or capacitive load. The control voltage is 4-32VDC, output current is rated at 10A, 16A or 25A.

Product Selection

MSR	—	SIM	240	D	25	R	W	-L	Q	T
	Packaging - : Bulk Packaging Y: Individual	SIM Series	Load Voltage 240:240VAC 380:380VAC	Control Voltage Type D:DC Control	Load Current 10:10Amp 16:16Amp 25:25Amp	Switching Mode Z:Zero Crossing R:Random-on	Control Voltage W:4-32VDC	LED Indication Blank: Without L: With LED	Terminal Type Blank: Screw Q:Quick Connection	T: TVS Protection Blank: Without TVS

Technical Specification

INPUT CIRCUIT		
Control Voltage Range	W	4-32VDC
Must Turn-on Voltage		4VDC
Must Turn-off Voltage		1VDC
Maximum Input Current		25mA (@32VDC)
OUTPUT CIRCUIT		
Load Voltage Range	240VAC	24-280VAC
	380VAC	24-440VAC
Maximum Turn-On Time	Random-on	1ms
	Zero Crossing	10ms
Maximum Turn-Off Time		10ms
Maximum Surge Current [@10 ms]	10A	120A
	16A	160A
	25A	250A

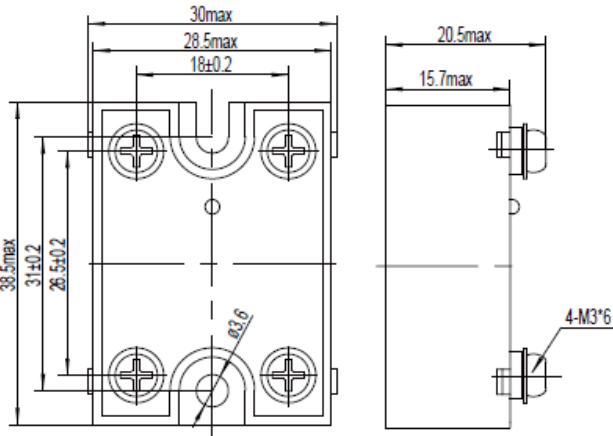
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OUTPUT CIRCUIT		
Maximum Transient Overvoltage	240VAC	600Vpk
	380VAC	800Vpk
Maximum I ² t for Fusing (@10ms)		10A: 50A2s 16A: 128A2s 25A: 312A2s
Minimum Off-State (dv/dt)		200V/μs
Maximum di/dt Non Repetitive		50A/μs
Operational Frequency Range		47 ~ 63Hz
Maximum Off-State Leakage Current [@ Rated Voltage]		5mA
Maximum On-State Voltage Drop [@ Rated Current]		1.5Vrms
Minimum Off-State dv/dt [@ Maximum Rated Voltage]		200V/μs
GENERAL INFORMATION		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input,Output/Base	2500Vrms
Power Factor		>0.5
Minimum Insulation Resistance		1000MΩ
Ambient Operating Temperature Range		-30°C +80°C
Ambient Storage Temperature Range		-30°C +100°C
Weight (Typical)		35g

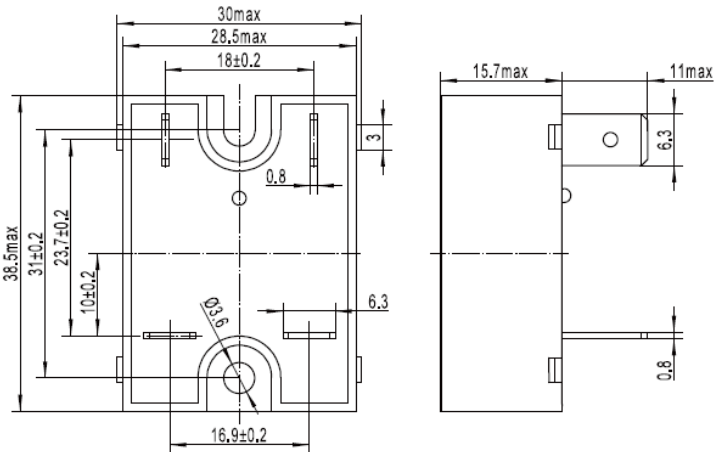
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Installation

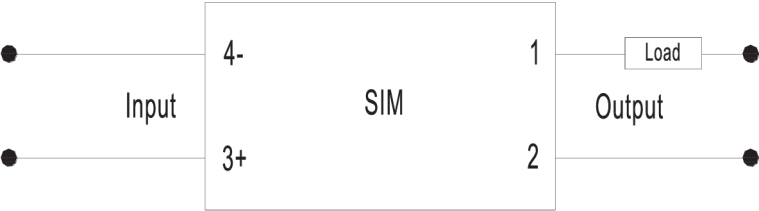
Typical



Q: QC

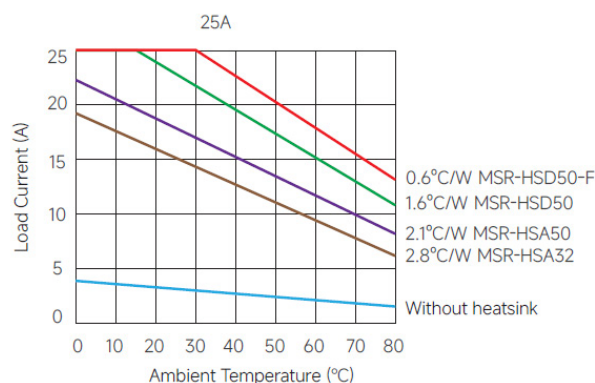
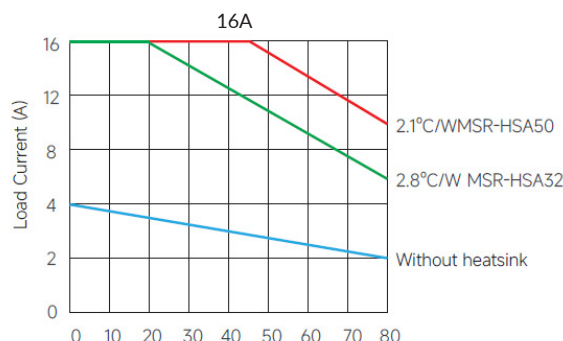
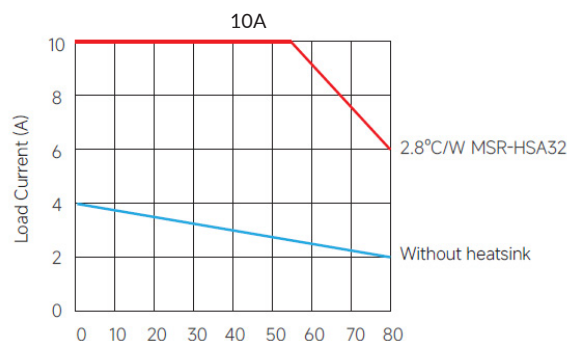


Wiring Diagram



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Thermal Curve



Attentions:

1. When the ambient temperature is over 40°C or many SIM series are installed closely together, the user should take load discount into account according to the thermal curve.
2. If the load current is over 3A, suitable heatsink should be added to the SSR.
3. Relay must be mounted to proper sized heat sink based on thermal curves. Thermal grease or a thermal pad must be used between relay and heat sink and be torqued down to (13-15)/(1.5-1.7) in-lb/Nm.
4. When connection wiring to SSR, please ensure screws are torqued down properly. Recommended torque for input screw is (13-15)/(1.5-1.7) in-lb/Nm, output screw is (13-15)/(1.5-1.7) in-lb/Nm.
5. SSR's carrying load capacity is related to the operation ambient temperature and heat dissipation condition, please refer to the Thermal Derating Curve for derating.

Warnings:

1. The product's side panels may be hot, allow the product to cool before touching.
2. Disconnect all power before installing or working with this equipment.
3. Verify all connections and replace all covers before turning on power.

Product Certification



Note: (1) No CCC for the product with TVS

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