

# Solid State Relay MSR-SN Series Single Phase AC Output

## Product Data Sheet

- Zero Crossing or Random-on Switching
- Ratings from 60A-125A @ 24-660VAC
- SCR Output
- DC or AC Input
- Dielectric Strength 4000VACrms
- LED Indication
- Built-In RC Snubber Circuit
- Panel Mounted
- Built-In IP20 Cover



## Product Selection

MSR	—	SN	480	D	60	R	W	-L	M
	Packing - : Bulk Pack Y: Individual Pack	SN Series	Load Voltage 240:240VAC 480:480 VAC 600:600VAC	Control Voltage D:DC Control A:AC Control	Load Current 60:60Amp 80:80Amp 100:100Amp 125:125Amp	Switching Mode Z:Zero Crossing R:Random-on	Control Voltage: Y: 90-250 VAC W: 3-32 VDC	L:LED	M:MOV T: TVS Without: No Protection (Optional)

## Technical Specification

Input parameters (Ta=25°C)		
Control Voltage Range	DC Input	3-32VDC
	AC Input	90-280VAC
Must Turn-on Voltage	DC Input	3VDC
	AC Input	90VAC
Must Turn-off Voltage	DC Input	1VDC
	AC Input	15VAC
Maximum Input Current	DC Input	25mA @32VDC
	AC Input	35mA@280VAC

Output parameters (Ta=25°C)		
Load Voltage	240V	24-280VAC
	480V	24-530VAC
	600V	24-660VAC
Maximum Turn-on Time	DC Input Random-on	1ms
	DC Input Zero-crossing	10ms
	AC Input	40ms
Maximum Turn-off Time	DC Input	10ms
	AC Input	20ms
Maximum Surge Current [@10ms]	60A	700A
	80A	800A
	100A	1000A
	125A	1250A

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### Technical Specification

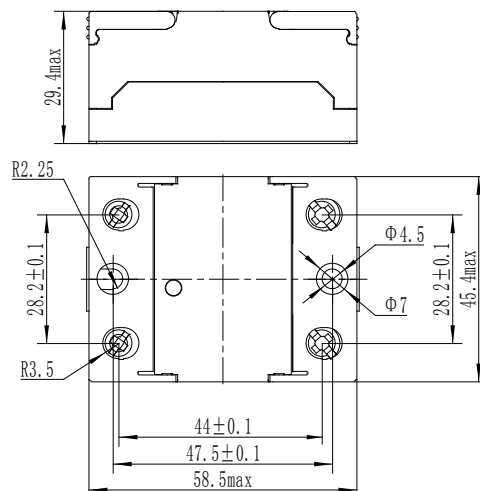
Output parameters (Ta=25°C)		
Maximum I <sup>2</sup> t For Fusing [@10ms]	60A	2450A <sup>2</sup> s
	80A	3200A <sup>2</sup> s
	100A	5000A <sup>2</sup> s
	125A	7812A <sup>2</sup> s
Transient Overvoltage	240V	800Vpk
	480V	1200Vpk
	600V	1600Vpk
Maximum Off-state Leakage Current [@ Rated Voltage]	5mA	
Maximum On-state Voltage Drop [@ Rated Current]	1.6Vrms	
Minimum Off-state dv/dt	500V/μs	

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input, Output/Base	2500Vrms
Min.Power Factor	0.5	
Min. Load Current	≥100mA	
Ambient Operating Temperature Range	-30°C ~ +80°C	
Ambient Storage Temperature Range	-30°C ~ +100°C	
Weight (Typical)	60A/80A/100A	75g
	125A	120g

### Applications

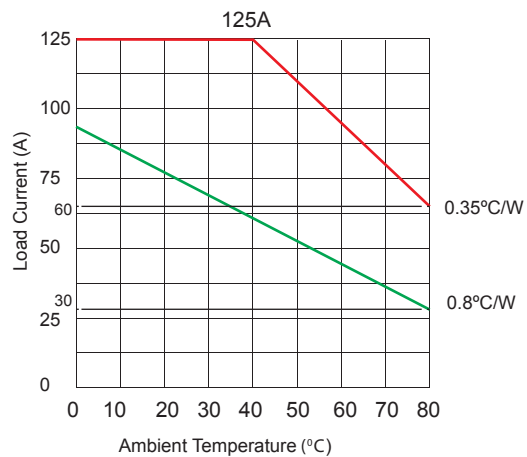
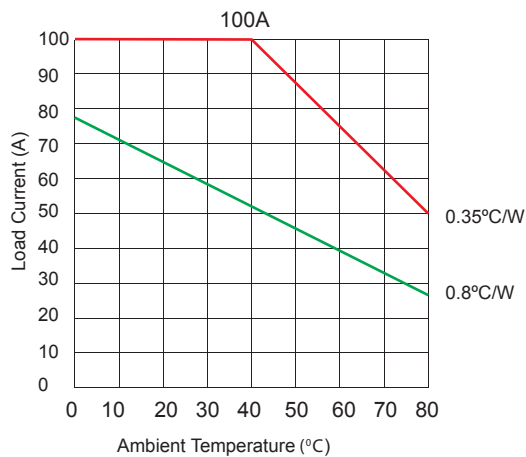
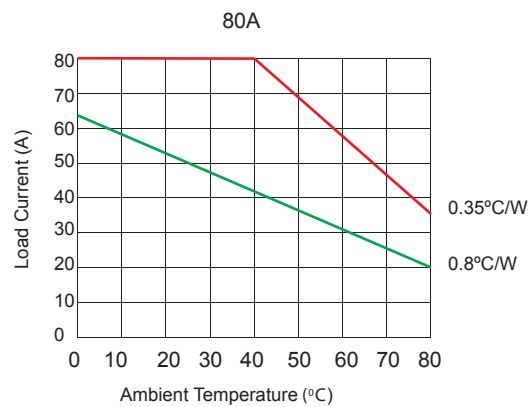
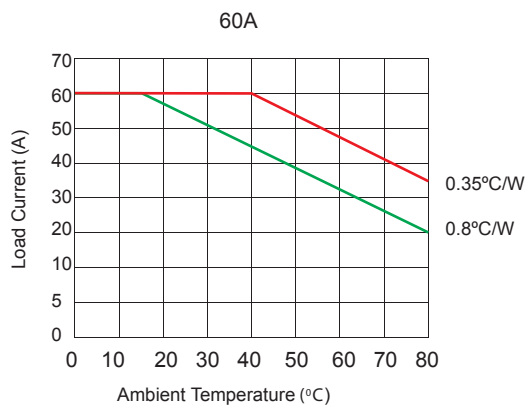
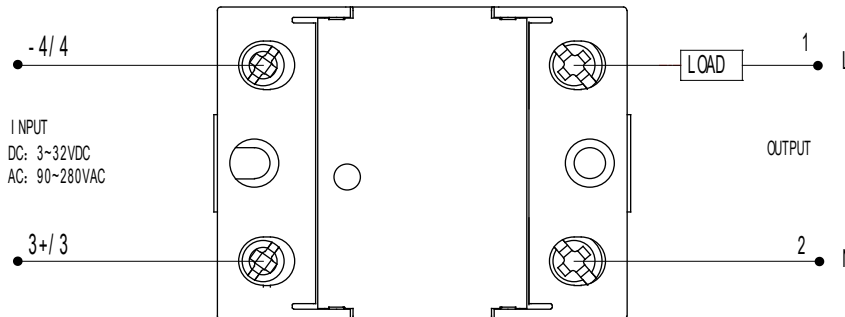
High-low Temperature Chamber, Food process machinery, Plastics Machinery.

### Installation



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1. 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 18-20/2.0-2.2in-lb/Nm.
2. When connecting wiring to SSR, ensure screws are torqued down properly (input 13-15/1.5-1.7in-lb/Nm, output 18-20/2.0-2.2 in-lb/Nm).
3. 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.

