

**crydom**

**Panel Mount**  
DataSheet

## SMR48 -6 Series

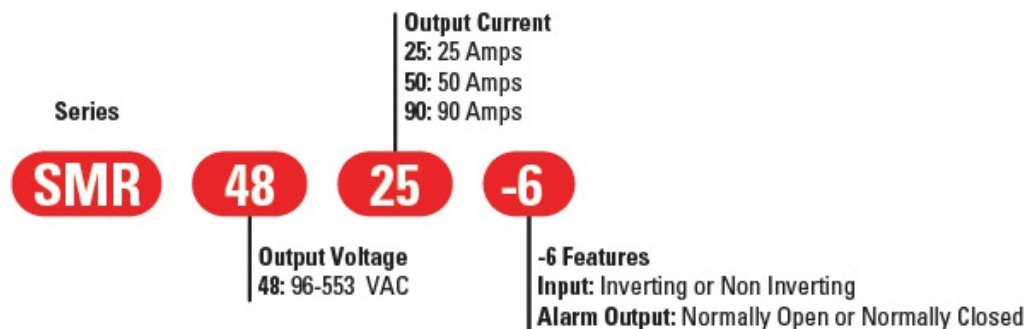


- System monitoring solid-state relay
- Ratings from 25A to 90A @ 60-280 V AC
- DC control
- LED status indicators
- Alarm output signal
- Inverting or non-inverting input
- Normally open or normally closed alarm output

### PRODUCT SELECTION

Control Voltage	25A	50A	90A
8-32 VDC	SMR4825-6	SMR4850-6	SMR4890-6

### AVAILABLE OPTIONS



### OUTPUT SPECIFICATIONS (1)

Description	SMR4825-6	SMR4850-6	SMR4890-6
Operating Voltage (47-63Hz) [Vrms]	96-530	96-530	96-530
Transient Overvoltage [Vpk]	1200	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA <sub>rms</sub> ]	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500	500
Maximum Load Current (3) [A <sub>rms</sub> ]	25	50	90
Minimum Load Current [mA <sub>rms</sub> ]	40	40	40
Maximum 1 Cycle Surge Current (50/60Hz) [A <sub>pk</sub> ]	239/250	597/625	1145/1200
Maximum On-State Voltage Drop @ Rated Current [V <sub>pk</sub> ]	1.6	1.6	1.6
Thermal Resistance Junction to Case (R <sub>jc</sub> ) [°C/W]	1.02	0.63	0.28
Maximum 1/2 Cycle I <sup>2</sup> t for Fusing (50/60 Hz) [A <sup>2</sup> sec]	285/259	1779/1621	6560/5976
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

### CONTROL SPECIFICATIONS (1)(4)

Description	INVERTING	NON-INVERTING
Logic Supply Voltage Range	8-32 VDC (pin 3)	8-32 VDC (pin 3)
Logic Supply Current @ 12	8 mA	14 mA (plus pin 8 loading)
Input-On Voltage Range	8-32 VDC (pin 6)	0-1.0 VDC (pin 5)
Input-Off Voltage Range	0-0.4 VDC (pin 6)	8-32 VDC (pin 5)
Input-On Current @ 12 VDC[Logic Supply]	6 mA	1.0 mA
Maximum Turn-On Time [msec]	1/2 Cycle	1/2 Cycle
Maximum Turn-Off Time [msec]	1/2 Cycle	1/2 Cycle



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## ALARM SPECIFICATIONS (1)(4)

Description	NORMALLY CLOSED	NORMALLY OPEN
Alarm-On Voltage	"Supply Voltage (with load) Open Col. NPN (pin 7)"	"Supply Voltage (minus 1.0 V) Active High PNP (pin 8)"
Alarm-Off Voltage	"1.5 VDC Active Low NPN (pin 7)"	"0.0 VDC (with load) Open Col. PNP (pin 8)"
Maximum Alarm Output Current	100 mA	100 mA
Alarm Delay (Min.-Max.)	30-100 msec	30-100 msec

## GENERAL SPECIFICATIONS

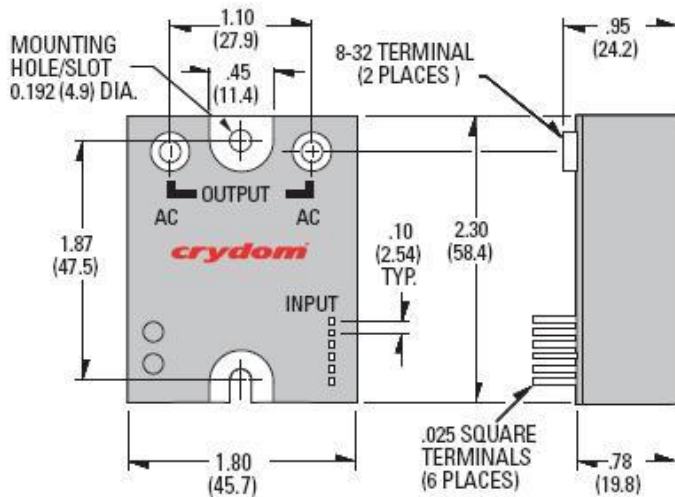
Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 <sup>9</sup> Ohm
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Output Terminals:	Screws and Saddle Clamps Furnished, Unmounted
Input Connector (locking):	ITW Pancon No. MTSS100-6 or Equivalent
Mating Connector (supplied):	ITW Pancon No. CT100F22-6 or Equivalent
Recommended Terminal Screw Torque Range:	8-32 & 10-32 Screws - 20 in. lbs. (Screws dry without grease)

## GENERAL NOTES

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- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required, for derating curves see page 2.
- 4) All voltages are positive in respect to common (pin 4)

## MECHANICAL SPECIFICATIONS

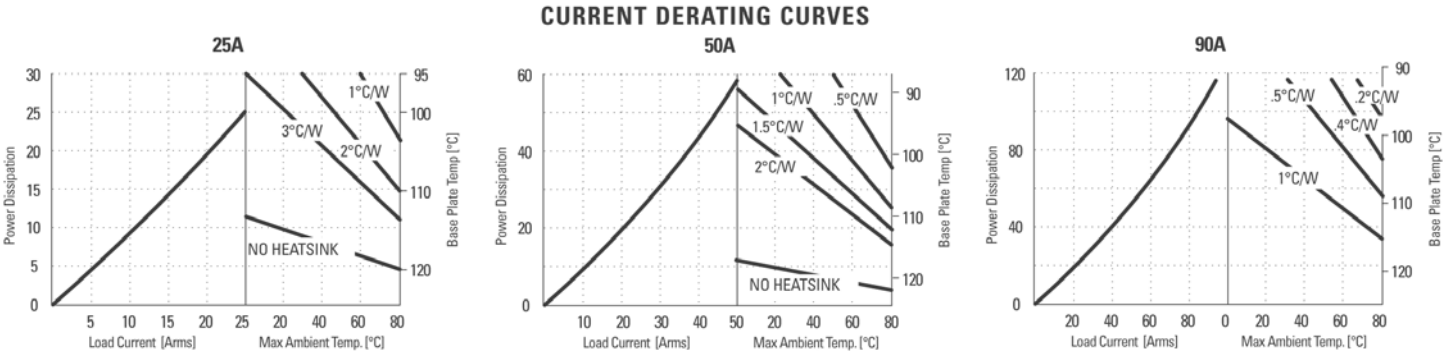


All dimensions are in inches (millimeters)



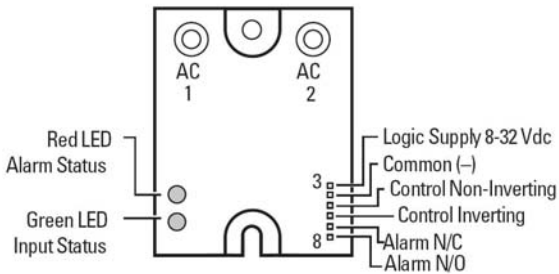
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## THERMAL DERATE INFORMATION

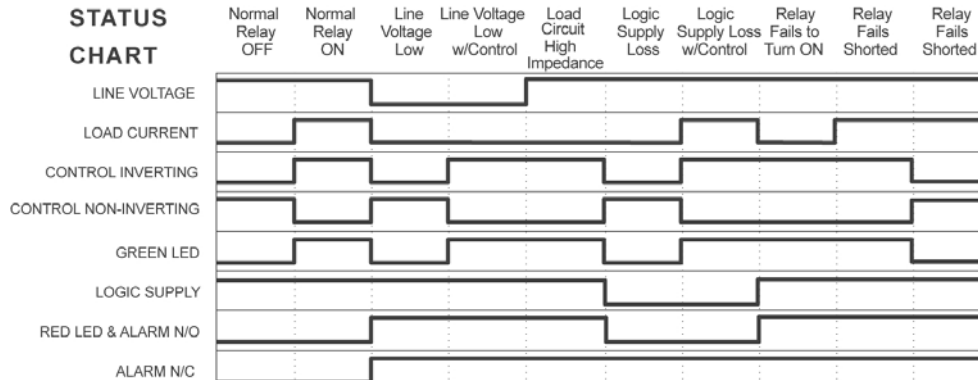


## WIRING DIAGRAM

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## STATUS CHART



## AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314

