

- **System Monitoring Solid State Relay**
- **LED Status Indicators**
- **Alarm Output Signal**
- **Zero Voltage Switching**
- **Invert/Non Invert Control Inputs and Alarm Outputs**

The SMR Series of System Monitoring Relays offer the user a number of fault

condition alarms. Low line voltage, load circuit high impedance, relay output and loss of DC supply current are constantly monitored by this unique Solid State Relay (SSR).

The alarm circuit can sink or source 100mA. The sink output is Normally Closed (NPN) and the source output is Normally Open (PNP).

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	SMR2425-6	SMR2450-6	SMR2490-6
OUTPUT SPECIFICATIONS ①			
Operating Voltage (47-63 Hz) [Vrms]	60-280	60-280	60-280
Max. Load Current ③ [Arms]	25	50	90
Min. Load Current, [mArms]	40	40	40
Transient Overvoltage [Vpk]	600	600	600
Max. Surge Current, (16.6ms) [Apk]	250	625	1200
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{θJC}) [°C/W]	1.02	0.63	0.28
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]	260	1620	6000
Max. Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②	500	500	500
Max. Turn-On Time	1/2 Cycle	1/2 Cycle	1/2 Cycle
Max. Turn-Off Time	1/2 Cycle	1/2 Cycle	1/2 Cycle
Power Factor (Min.) with Max. Load	0.5	0.5	0.5
CONTROL SPECIFICATIONS ①④			
	INVERTING	NON-INVERTING	
Logic Supply Voltage Range	8-32 Vdc (pin 3)	8-32 Vdc (pin 3)	
Logic Supply Current @ 12 Vdc	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 (pin 6)	1.0 mA (pin 5)	
ALARM SPECIFICATIONS ①④			
	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 NOTES

- 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).



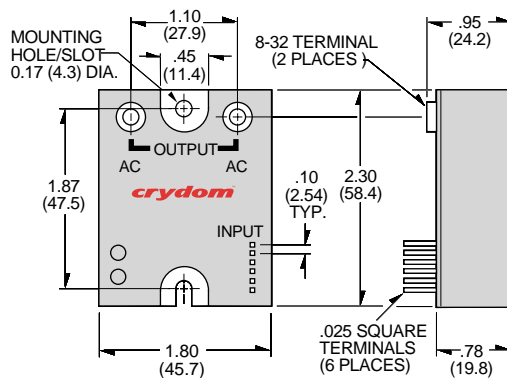
GENERAL SPECIFICATIONS

Dielectric Strength	50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc		10 ⁹ Ohm
Max. Capacitance Input/Output		8 pF
Ambient Operating Temperature Range		-40 to 80°C
Ambient Storage Temperature Range		-40 to 125°C

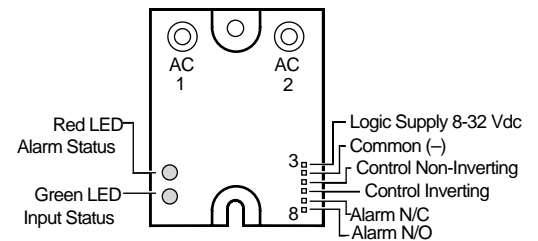
MECHANICAL SPECIFICATIONS

Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Output Terminals:	Screws and Saddle Clamps Furnished, Unmounted
Input Connector (locking):	Panduit No. MLSS100-6 or Equivalent
Mating Connector (supplied):	Panduit No. CT100F22-6 or Equivalent

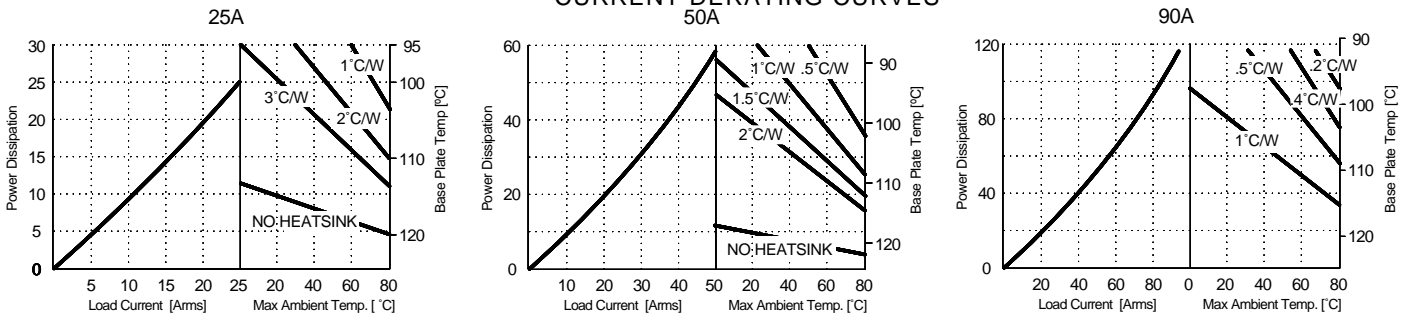
All dimensions are in inches (millimeters)
 Screw Torque Requirements:
 8-32 Screws - 20in./lbs.
 (Screws dry without grease.)



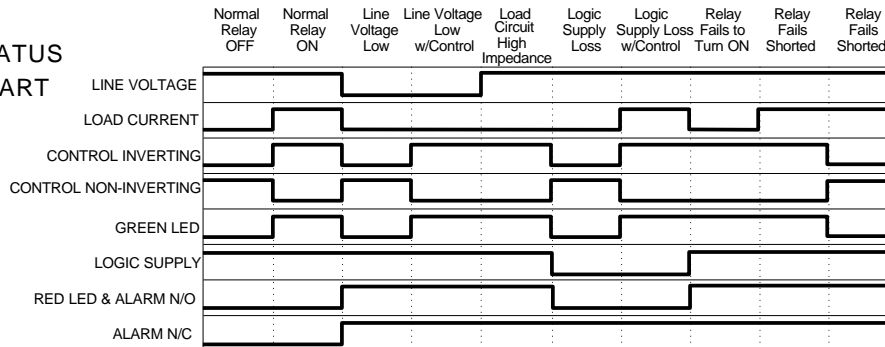
WIRING DIAGRAM



CURRENT DERATING CURVES



STATUS CHART



Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

APPROVALS

UL PENDING
 CSA PENDING
 VDE PENDING

