

- **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	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	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

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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).

For recommended applications and more information contact:
USA: Sales Support (877) 502-5500 **Tech Support** (877) 702-7700 FAX (619) 710-8540
 Crydom Inc., 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154
Email: sales@crydom.com **WEB SITE:** http://www.crydom.com
UK: +44 (0)1202 606030 • **FAX** +44 (0)1202 606035 Crydom SSR Ltd., Arena Business Centre,
 Holyrood Close, Poole, Dorset BH17 7FJ, Email: intsales@crydom.com.
GERMANY: +49 (0)180 3000 506 *

* **Note:** SMR family of relays is not available for purchase in Germany

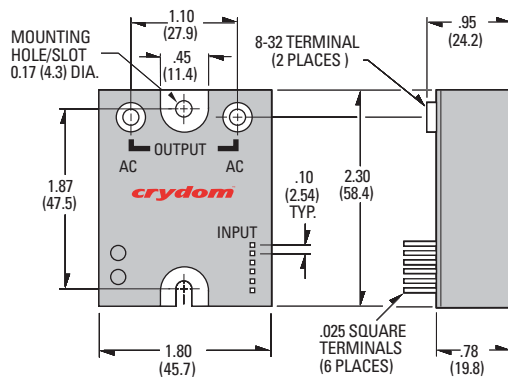


GENERAL SPECIFICATIONS

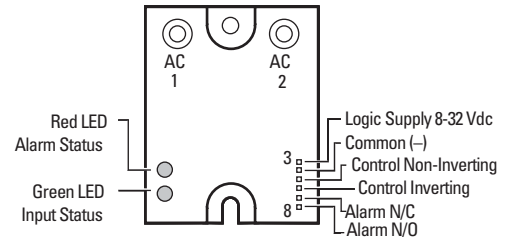
Dielectric Strength 50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 ⁹ Ohm
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

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

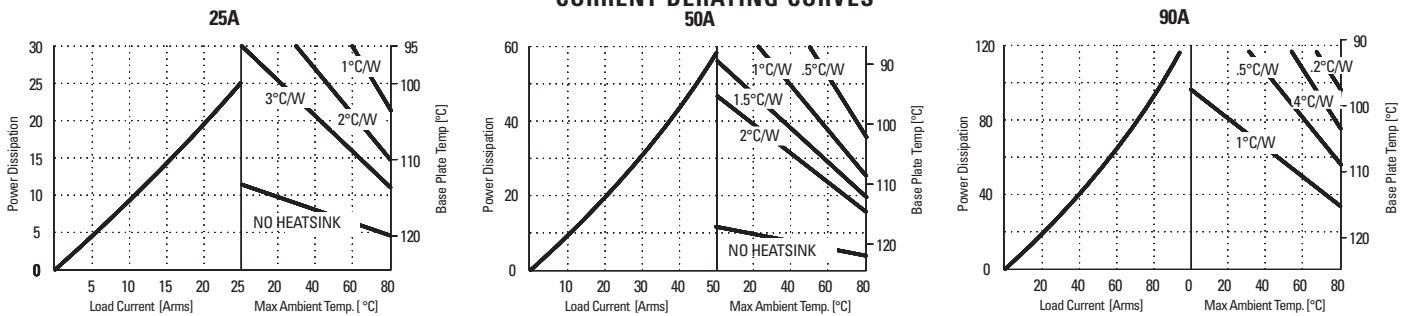


WIRING DIAGRAM

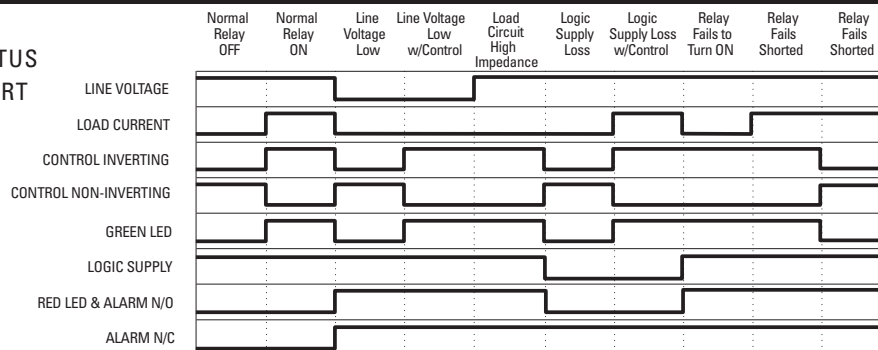


All dimensions are in inches (millimeters)
Screw Torque Requirements:
 8-32 Screws - 20in./lbs.
 (Screws dry without grease.)

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



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ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

