



CMA/CMD SERIES | 480 VAC

PANEL MOUNT SOLID STATE RELAYS



Features

- Ratings from 25A to 125A @ 48-530 VAC
- SCR output for heavy industrial loads
- DC control
- LED input status indicator
- Zero crossing (resistive loads) output
- IP20 touch-safe housing
- Standard box-clamp connections

PRODUCT SELECTION

Control Voltage	25 A	50 A	125 A
4-32 VDC	CMD4825	CMD4850	CMD48125

SPECIFICATIONS

Output ⁽¹⁾

Description	25 A	50 A	125 A
Operating Voltage (47-63Hz) [Vrms]	48-530	48-530	48-530
Transient Overvoltage [Vpk]	1200	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA]	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽²⁾	500	500	500
Maximum Load Current [Arms] ⁽³⁾	25	50	125
Minimum Load Current [Arms]	0.15	0.15	0.25
Maximum Surge Current (50/60Hz, 1 Cycle) [Apk]	239/250	597/625	1670/1750
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Thermal Resistance Junction to Case (Rjc) [°C/W]	1.02	0.63	0.22
Maximum I ² t for Fusing (50/60Hz, 1/2 cycle) [A ² sec]	285/259	1779/1621	13950/12709
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

Input ⁽¹⁾

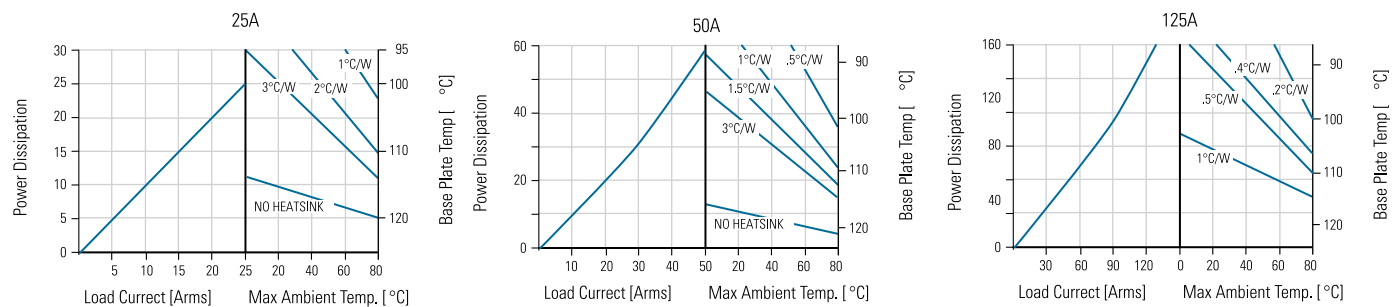
Description	CMD
Control Voltage Range	3-32 VDC
Maximum Reverse Voltage	32 VDC
Maximum Turn-On Voltage	3.0 VDC
Minimum Turn-On Voltage	1.0 VDC
Typical Input Current @ max turn-on voltage	30 mA ⁽⁴⁾
Nominal Input Impedance [Ohms]	17 mA @ 5 VDC
Maximum Turn-On Time [msec]	1/2 Cycle
Maximum Turn-Off Time [msec]	1/2 Cycle

General

Description	Parameters
Dielectric Strength, Input/Output (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 ⁹ Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Status Indicator Display	Green LED
Weight (typical)	3.0 oz (86.5 g)
Encapsulation	Thermally Conductive Epoxy
Terminals	Cage Type
Maximum Wire Size-Output:	AWG 8 (3.8mm)
Maximum Wire Size-Input:	AWG 12 (2.5mm)
Recommended Terminal Screw Torque Range:	Output: 10-15 lb-in (1.1-1.7 Nm)
	Input: 5-6 lb-in (0.6-0.7 Nm)

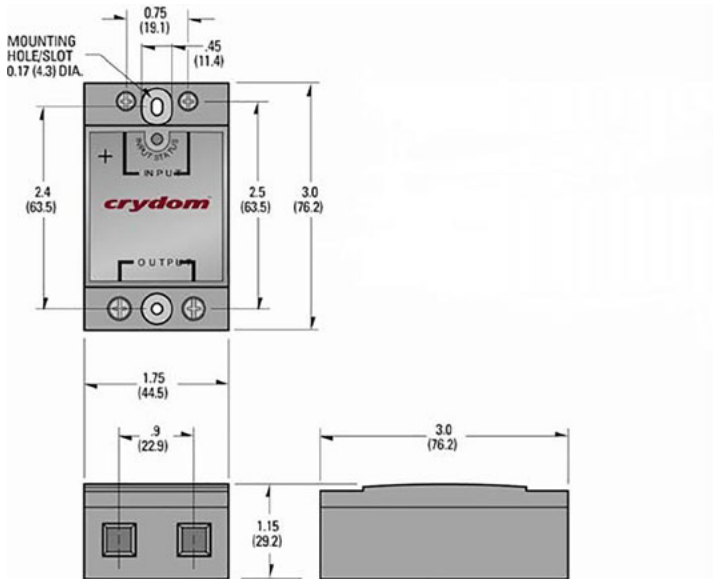
THERMAL DERATE INFORMATION

Current Derating Curves



MECHANICAL SPECIFICATIONS

*Tolerances: ±0.02 in / 0.5 mm
All dimensions are in: inches [millimeters]



AVAILABLE OPTIONS

Example : CMD4825

	CM	D	48	25
Series	☐	☐	☐	☐
CM				
Control Voltage	☐	☐	☐	☐
D: DC (4-32V)				
Operating Voltage	☐	☐	☐	☐
48: 48-530 VAC				
Load Current	☐	☐	☐	☐
25: 25 Amps				
50: 50 Amps				
125: 125 Amps				

☐ Required for valid part number
☐ For options only and not required for valid part number

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 3.
- (4) Input circuitry incorporates active current limiter.

AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314



WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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