



# Series CM D48/ CM A48

25-125Amp • 480 Vac • AC Output

- Zero Voltage and Random Turn-On Switching
- Panel Mount
- Status Indicating LED
- DC or AC Control

Featuring state-of-the-art Surface Mount Technology, these SPST-NO relays deliver proven reliability in the most demanding applications. Output consists of an SCR AC switch and is available in zero-cross or random turn-on versions.

Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

| MODEL NUMBERS                                                         | CMD4825<br>CMA4825                             | CMD4850<br>CMA4850 | CMD4875<br>CMA4875 | CMD4890<br>CMA4890 | CMD48110<br>CMA48110 | CMD48125<br>CMA48125 |
|-----------------------------------------------------------------------|------------------------------------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| <b>OUTPUT SPECIFICATIONS ①</b>                                        |                                                |                    |                    |                    |                      |                      |
| Operating Voltage (47-63 Hz) [Vrms]                                   | 48-530                                         | 48-530             | 48-530             | 48-530             | 48-530               | 48-530               |
| Max. Load Current ③ [Arms]                                            | 25                                             | 50                 | 75                 | 90                 | 110                  | 125                  |
| Min. Load Current, [Arms]                                             | 0.15                                           | 0.15               | 0.25               | 0.25               | 0.25                 | 0.25                 |
| Transient Overvoltage [Vpk]                                           | 1200                                           | 1200               | 1200               | 1200               | 1200                 | 1200                 |
| Max. Surge Current, (16.6ms) [Apk]                                    | 250                                            | 625                | 1000               | 1200               | 1500                 | 1750                 |
| Max. On-State Voltage Drop @Rated Current [Vpk]                       | 1.7                                            | 1.7                | 1.7                | 1.7                | 1.7                  | 1.7                  |
| Thermal Resistance Junction to Case (R <sub>θJC</sub> ) [°C/W]        | 1.02                                           | 0.63               | 0.31               | 0.28               | 0.25                 | 0.22                 |
| Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec] | 260                                            | 1620               | 4150               | 6000               | 9340                 | 12700                |
| Max. Off-State Leakage Current @Rated Voltage [mArms]                 | 10                                             | 10                 | 10                 | 10                 | 10                   | 10                   |
| Min. Off-State dv/dt @Max. Rated Voltage [V/μsec]②                    | 500                                            | 500                | 500                | 500                | 500                  | 500                  |
| Max. Turn-On Time④                                                    | 1/2 Cycle (DC Control), 10.0 msec (AC Control) |                    |                    |                    |                      |                      |
| Max. Turn-Off Time                                                    | 1/2 Cycle (DC Control), 40.0 msec (AC Control) |                    |                    |                    |                      |                      |
| Power Factor (Min.) with Max. Load                                    | 0.5                                            | 0.5                | 0.5                | 0.5                | 0.5                  | 0.5                  |

| INPUT SPECIFICATIONS① | DC CONTROL                 | AC CONTROL  |
|-----------------------|----------------------------|-------------|
| Control Voltage Range | 4-32 Vdc                   | 90-140 Vrms |
| Max. Reverse Voltage  | 32 Vdc                     | —           |
| Max. Turn-On Voltage  | 4.0 Vdc                    | 90 Vrms     |
| Min. Turn-Off Voltage | 1.0 Vdc                    | 10 Vrms     |
| Max. Input Current    | 30.0mA⑤                    | —           |
| Typical Input Current | 14mA @5 Vdc 15mA @120 Vrms |             |

| GENERAL SPECIFICATIONS                        |                     |
|-----------------------------------------------|---------------------|
| Dielectric Strength 50/60Hz Input/Output/Base | 4000 Vrms           |
| Insulation Resistance (Min.) @500 Vdc         | 10 <sup>9</sup> Ohm |
| Max. Capacitance Input/Output                 | 8 pF                |
| Ambient Operating Temperature Range           | -40 to 80°C         |
| Ambient Storage Temperature Range             | -40 to 125°C        |
| Status Indicating Display                     | Green LED           |

## 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 Turn-on time for DC control random turn-on versions is 0.02msec.
- ⑤ Input circuitry incorporates active current limiter.

## MECHANICAL SPECIFICATIONS

|                                                              |                            |
|--------------------------------------------------------------|----------------------------|
| Weight: (typical)                                            | 3.0 oz. (86.5g)            |
| Encapsulation:                                               | Thermally Conductive Epoxy |
| Terminals:                                                   | Cage Type                  |
| Maximum Wire Size- Output: AWG6 (4.1mm) Input: AWG10 (2.6mm) |                            |

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For recommended applications and more information contact:

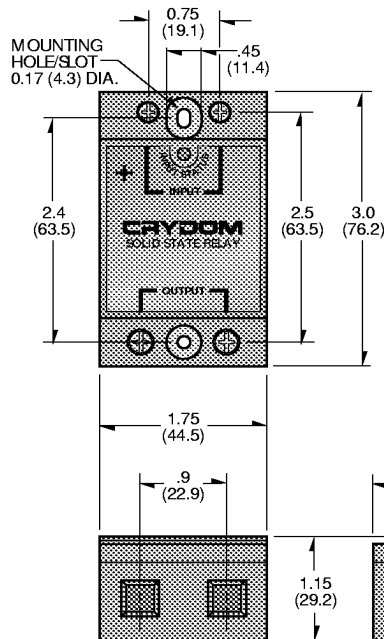
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25-125Amp • 480 Vac • AC Output



## MECHANICAL SPECIFICATIONS

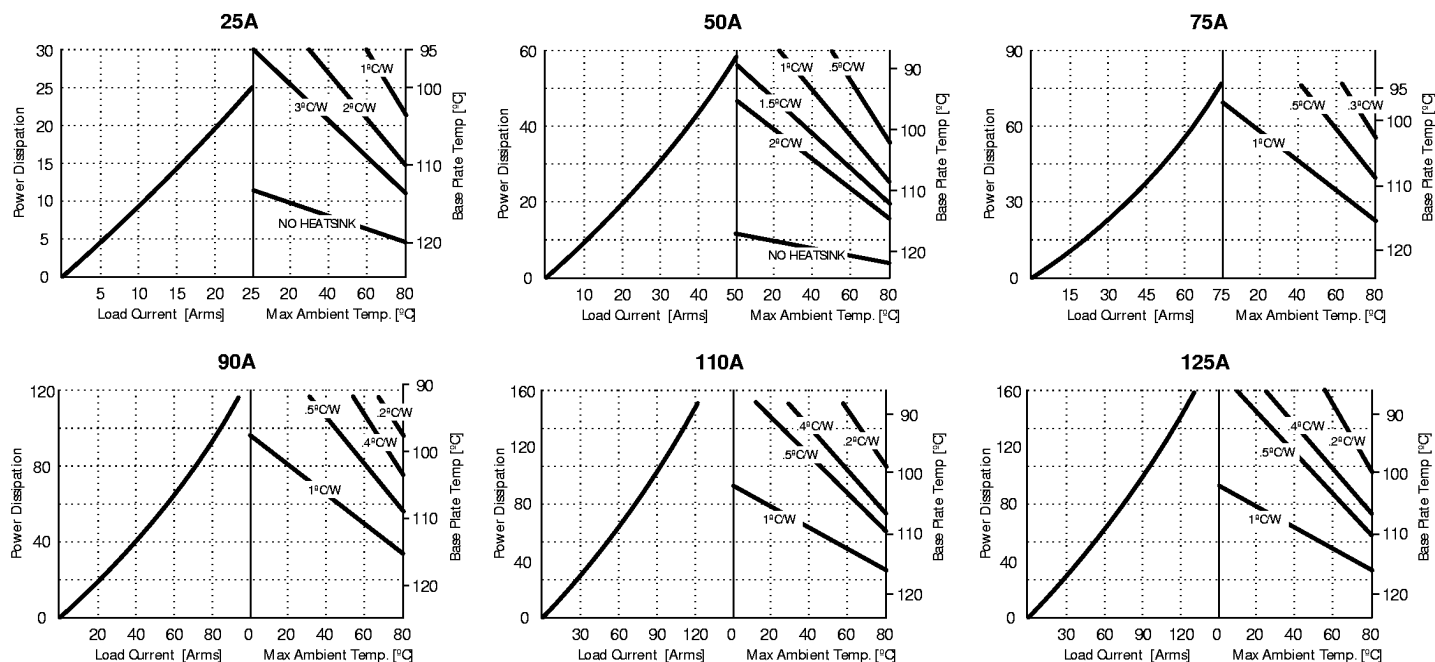
All dimensions are in inches (millimeters)

**CM RD48/CM RA48** available with factory mounted heat sink and DIN rail mounting clip. Specifications available via FastFax, request document No. 171.

## AVAILABLE OPTIONS

- 10** Random Turn-On, Phase Controllable  
Example: **CM D4850-10**
- E** 24 Vac Input (18-36 Vac)  
Example: **CM A4850E**

## CURRENT DERATING CURVES



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## APPROVALS

UL PENDING  
CSA PENDING  
VDE PENDING



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