



CMR SERIES | 240 VAC

DIN RAIL MOUNT SOLID STATE RELAYS



Features

- Ratings from 35 A to 55 A @ 660 VAC
- 45mm (width) package
- SCR output for heavy industrial loads
- LED input status indicator
- AC or DC control
- Zero-crossing (resistive loads) output

PRODUCT SELECTION

Control Voltage	35 A	45 A	55 A
3-32 VDC	CMRD2435	CMRD2445	CMRD2455
90-140 VAC Control		CMRA2445	

SPECIFICATIONS

Output ⁽¹⁾

Description	35 A	45 A	55 A
Operating Voltage (47-63Hz) [Vrms]	24-280	24-280	24-280
Transient Overvoltage [Vpk]	600	600	600
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rs}]	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽²⁾	500	500	500
Maximum Load Current [A _{rs}]	35	45	55
Minimum Load Current [A _{rs}]	0.15	0.15	0.25
Maximum Surge Current (50/60Hz, 1 Cycle) [A _{pk}]	239/250	597/625	954/1000
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Thermal Resistance Junction to Case [R _{jc}] [°C/W]	1.02	0.63	0.31
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	285/259	1779/1621	4555/4150
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

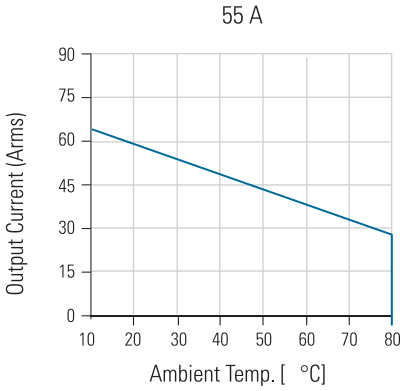
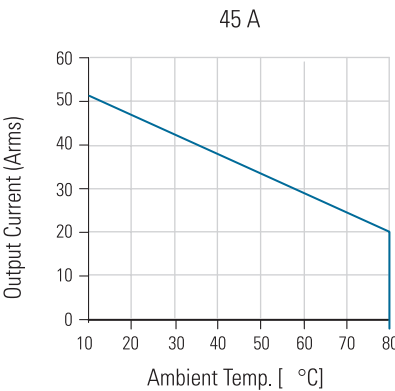
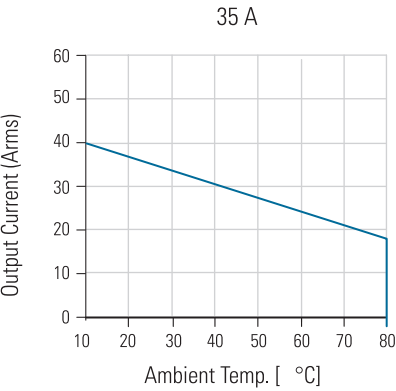
Input ⁽¹⁾

Description	CMRD24xx	CMRA24xx
Control Voltage Range (DC or RMS)	3-32 VDC	90-140 Vrms
Minimum Turn-On Voltage	3.0 VDC	90 Vrms
Maximum Turn-Off Voltage	1.0 VDC	10 Vrms
Maximum Reverse Voltage	32 VDC	-
Maximum Off-State Voltage	1.0 VDC	10 VAC
Maximum Input Current	30 mA	-
Typical Input Current ⁽³⁾	17 mA @ 5 VDC	15 mA @ 120 Vrms
Maximum Turn-On Time [msec]	1/2 Cycle	10
Maximum Turn-Off Time [msec]	1/2 Cycle	40

General ⁽¹⁾

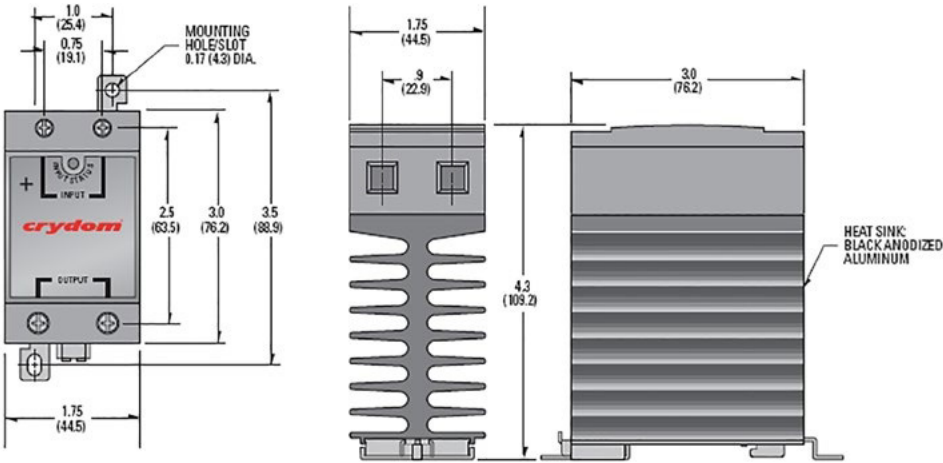
Description	Parameters
Dielectric Strength, Input/Output (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 ⁹ Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Status Indicator Display	Green LED
Weight (typical)	16.8 oz. (476g)
Encapsulation	Thermally Conductive Epoxy
Terminals	Cage Type
Maximum Wire Size	Output: AWG 8 (4.8mm) 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



MECHANICAL SPECIFICATIONS

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



AVAILABLE OPTIONS

Example : CMRD2435

	CMR	D	24	35
Series				
CMR				
Control Voltage				
D: 3-32 VDC				
A: 90-140 VAC				
Operating Voltage				
24: 24-280 VAC				
Operational Current				
35: 35 Amps				
45: 45 Amps				
55: 55 Amps				

— Required for valid part number
 □ For options only and not required for valid part number

NOTE: Not all combinations are available.
 Consult factory for information on the availability of a specific 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) Input circuitry for DC control version 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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