

- **Zero Voltage and Random Turn-On Switching**
- **DIN Rail & Panel Mount**
- **Status Indicating LED**
- **DC or AC Control**
- **Integrated Overvoltage Protection by Automatic Self Turn-On (Suffix P)**

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 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	CMRD6035 CMRA6035	CMRD6045 CMRA6045	CMRD6055 CMRA6055	CMRD6065 CMRA6065
OUTPUT SPECIFICATIONS ①				
Nominal Line Voltage (±10%) [Vrms]	600	600	600	600
Operating Voltage (47-63 Hz) [Vrms]	48-660	48-660	48-660	48-660
Max. Load Current @ 25°C Ambient Temperature [Arms]	35	45	55	65
Min. Load Current, [Arms]	0.15	0.15	0.25	0.25
Transient Overvoltage [Vpk]	1200	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]	250	625	1000	1200
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.7	1.7	1.7	1.7
Thermal Resistance Junction to Case (R _{θJC}) [°C/W]	1.02	0.63	0.31	0.28
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]	260	1620	4150	6000
Max. Off-State Leakage Current @ Rated Voltage [mArms]	1.0	1.0	1.0	1.0
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②	500	500	500	500
Max. Turn-On Time ③	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

INPUT SPECIFICATIONS ①	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	30.0mA ④	—
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 ⁹ 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

MECHANICAL SPECIFICATIONS

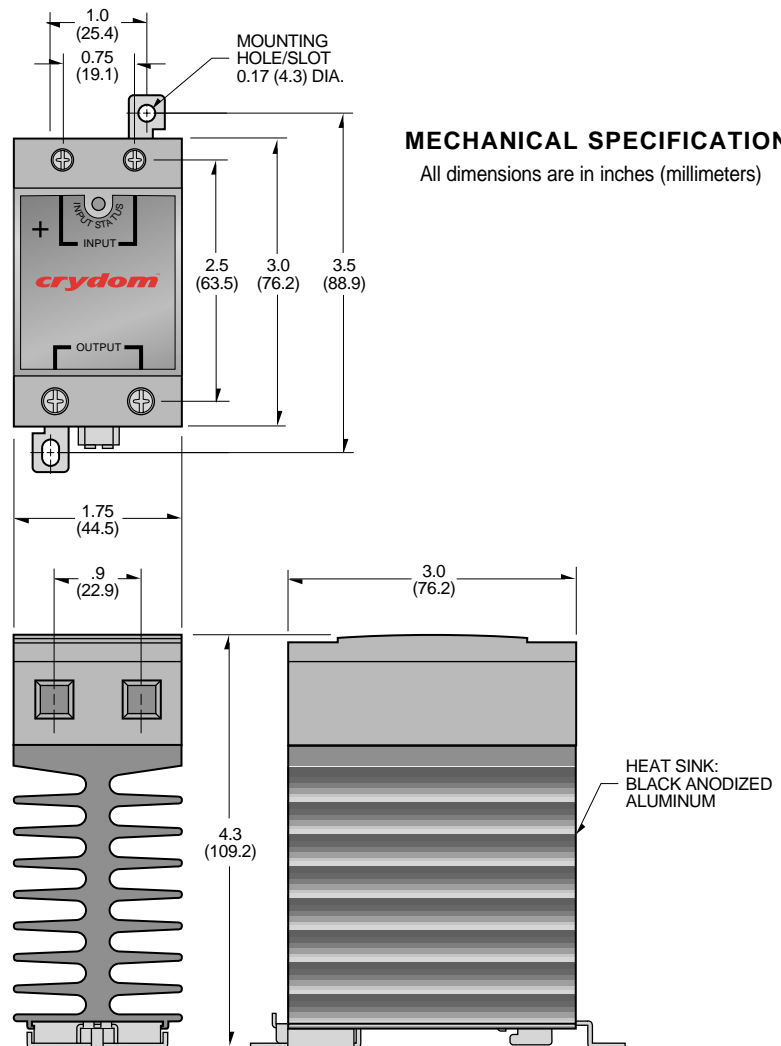
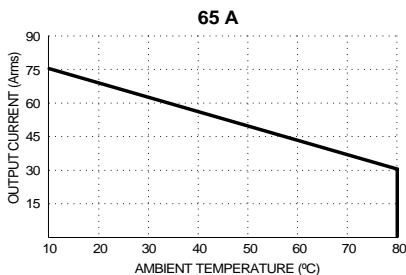
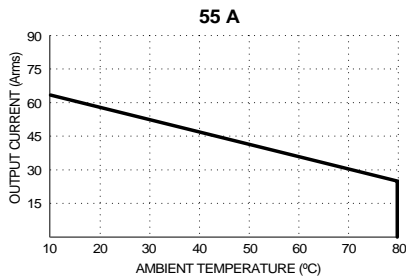
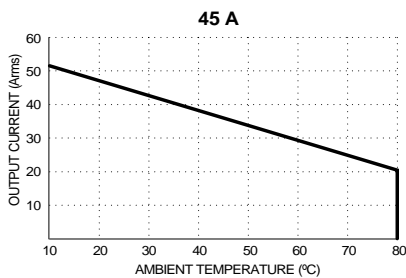
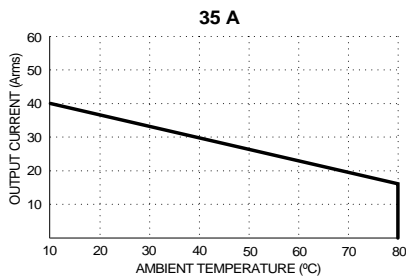
Weight: (typical)	16.8 oz. (476g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Cage Type
Maximum Wire Size- Output: AWG 8 (3.8mm) Input: AWG12 (2.5mm)	
Recommended Terminal Screw Torque Range:	
	Output: 10-15 in lb (1.1-1.7 Nm)
	Input: 5-6 in lb (0.6-0.7 Nm)

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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 Turn-on time for DC control random turn-on versions is 0.02msec.
- ④ Input circuitry incorporates active current limiter.

CURRENT DERATING CURVES



AVAILABLE OPTIONS

- 10 Random Turn-On, Phase Controllable
Example: **CMRD6035-10**
- E 24 Vac Input (18-36 Vac)
Example: **CMRA6035E**
- P Internal Overvoltage Protection.
Relay Will Self Trigger Between 900-1200Vpk. Not Suitable For Capacitive Loads.
Example: **CMRD6035P**

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APPROVALS

UL E116950
CSA LR81689
VDE 126921



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