

- 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	CMRD4835 CMRA4835	CMRD4845 CMRA4845	CMRD4855 CMRA4855	CMRD4865 CMRA4865
OUTPUT SPECIFICATIONS ①				
Operating Voltage (47-63 Hz) [Vrms]	48-530	48-530	48-530	48-530
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 _{qJC}) [° 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]	10	10	10	10
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 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.

GENERAL SPECIFICATIONS

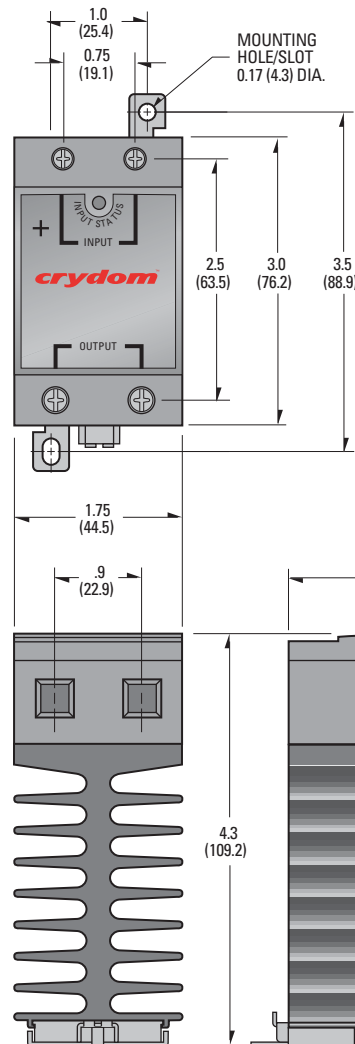
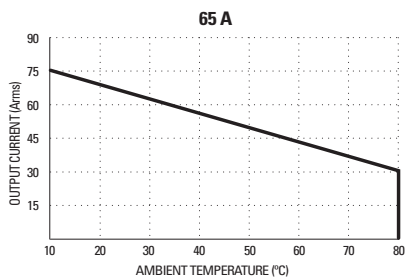
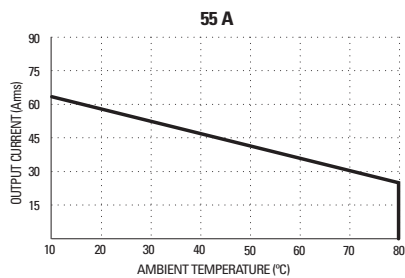
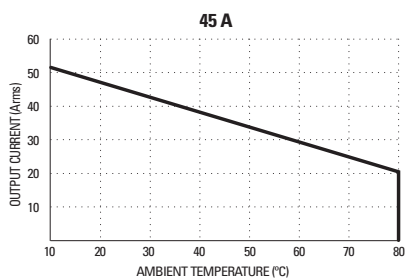
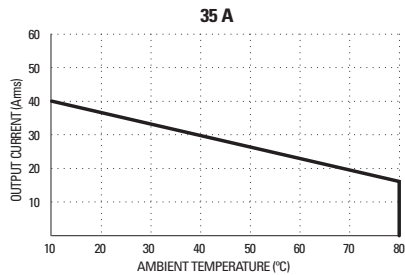
Dielectric Strength 50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 ⁹ Ohm
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C
Status Indicating Display	Green LED

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)

© 2007 CRYDOM Inc., Specifications subject to change without notice.

CURRENT DERATING CURVES



MECHANICAL SPECIFICATIONS

All dimensions are in inches (millimeters)

HEAT SINK:
BLACK ANODIZED
ALUMINUM

AVAILABLE OPTIONS

- 10 Random Turn-On, Phase Controllable
Example: **CMRD4835-10**
- E 24 Vac Input (18-36 Vac)
Example: **CMRA4835E**
- P Internal Overvoltage Protection.
Relay Will Self Trigger Between
900-1200Vpk. Not suitable For Capacitive Loads.
Example: **CMRD4835P**

APPROVALS

UL E116950
CSA LR81689
VDE 126921 UG



SERIES CMRD/CMRA.
Rev. 100107
PAGE 4 OF 7

© 2007 CRYDOM Inc., Specifications subject to change without notice.

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

