

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

- Zero Voltage and Random Turn-On Switching
- 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	CMD2425 CMA2425	CMD2450 CMA2450	CMD2475 CMA2475	CMD2490 CMA2490	CMD24110 CMA24110	CMD24125 CMA24125
OUTPUT SPECIFICATIONS ①						
Operating Voltage (47-63 Hz) [Vrms]	24-280	24-280	24-280	24-280	24-280	24-280
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]	600	600	600	600	600	600
Max. Surge Current, (16.6ms) [Apk]	250	625	1000	1200	1500	1750
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{θJC}) [°C/W]	1.02	0.63	0.31	0.28	0.25	0.22
Maximum I ² t for Fusing, (8.3 msec.) [A ² 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 Time ④	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 SPECIFICATIONS	DC CONTROL	AC CONTROL
Control Voltage Range	3-32 Vdc	90-140 Vrms
Max. Reverse Voltage	32 Vdc	—
Max. Turn-On Voltage	3.0 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10 Vrms
Max. Input Current	30.0mA ⑤	—
Typical Input Current	17mA @ 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)	3.0 oz. (86.5g)
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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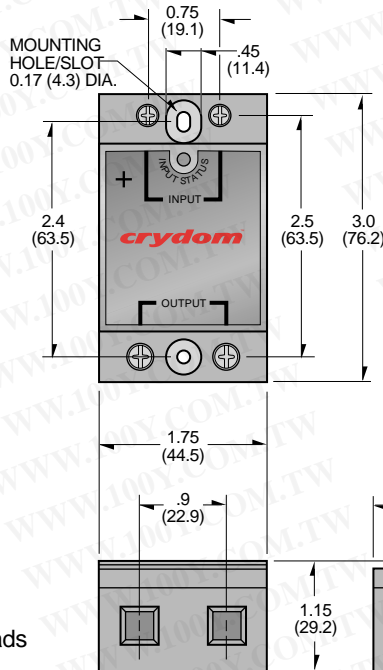
GENERAL NOTES

- 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 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.

For recommended applications and more information contact:
USA: Sales Support (877) 502-5500 **Tech Support** (877) 702-7700 **FAX** (619) 710-8540
 Crydom Corp, 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154
Email: sales@crydom.com **WEB SITE:** http://www.crydom.com
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MECHANICAL SPECIFICATIONS

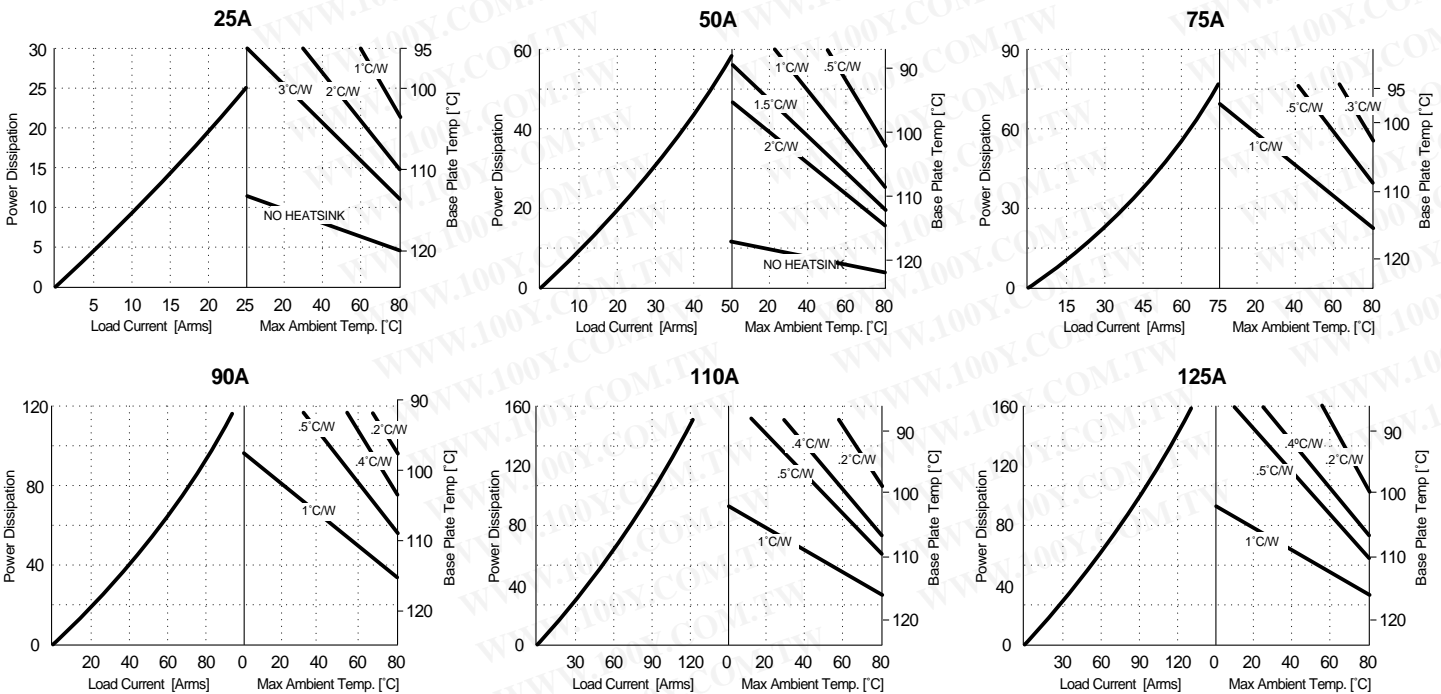
All dimensions are in inches (millimeters)

CMRD24/CMRA24 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: **CMD2450-10**
- E 24 Vac Input (18-36 Vac)
Example: **CMA2450E**
- P Internal Overvoltage Protection
Relay Will Self Trigger Between 450-600 Vpk. Not Suitable For Capacitive Loads
Example: **CMD2450P**

CURRENT DERATING CURVES



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APPROVALS

UL E116949, E116950
 CSA LR81689
 VDE 126921 UG (up to 90A models only)



FastFax Document No. 170
 SERIES CMD/CMA.
 Rev. 111403
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- Panel Mount
- Status Indicating LED
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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	CMD4825 CMA4825	CMD4850 CMA4850	CMD4875 CMA4875	CMD4890 CMA4890	CMD48110 CMA48110	CMD48125 CMA48125
OUTPUT SPECIFICATIONS ①						
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 _{θJC}) [° C/W]	1.02	0.63	0.31	0.28	0.25	0.22
Maximum I ² t for Fusing, (8.3 msec.) [A ² 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 Time ④	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 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 ⑤	—
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)	3.0 oz. (86.5g)
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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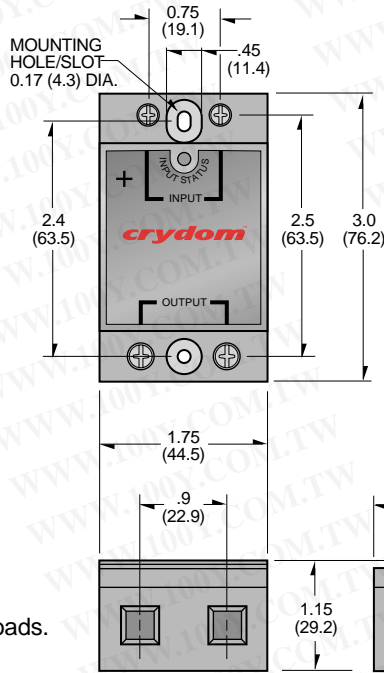
GENERAL NOTES

- 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 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.

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MECHANICAL SPECIFICATIONS

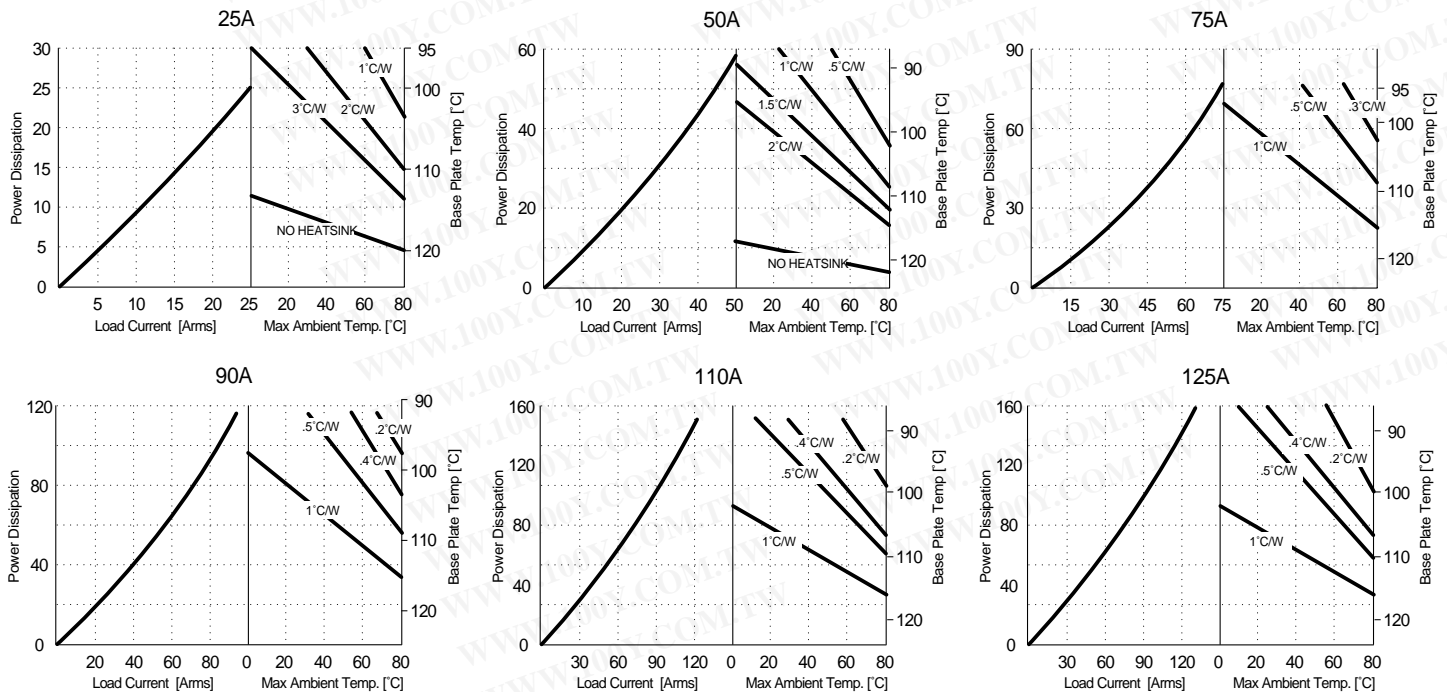
All dimensions are in inches (millimeters)

CMRD48/CMRA48 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: **CMD4850-10**
- E 24 Vac Input (18-36 Vac)
Example: **CMA4850E**
- P Internal Overvoltage Protection.
Relay Will Self Trigger Between 900-1200Vpk. Not suitable For Capacitive Loads.
Example: **CMD4850P**

CURRENT DERATING CURVES



APPROVALS

UL E116949, E116950
 CSA LR81689
 VDE 126921 UG (up to 90A models only)



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Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

Recommended Terminal Screw Torque Range:
 Output: 10-15 in lb (1.1-1.7 Nm)
 Input: 5-8 in lb (0.6-0.9 Nm)

MODEL NUMBERS	CMD6025	CMD6050	CMD6075	CMD6090	CMD60110	CMD60125
OUTPUT SPECIFICATIONS ①	CMA6025	CMA6050	CMA6075	CMA6090	CMA60110	CMA60125
Nominal Line Voltage (±10%) [Vrms]	600	600	600	600	600	600
Operating Voltage (47-63 Hz) [Vrms]	48-660	48-660	48-660	48-660	48-660	48-660
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 _{θJC}) [°C/W]	1.02	0.63	0.31	0.28	0.25	0.22
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]	260	1620	4150	6000	9340	12700
Max. Off-State Leakage Current @ Rated Voltage [mArms]	1.0	1.0	1.0	1.0	1.0	1.0
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②	500	500	500	500	500	500
Max. Turn-On Time ④	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 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 ⑤	—
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

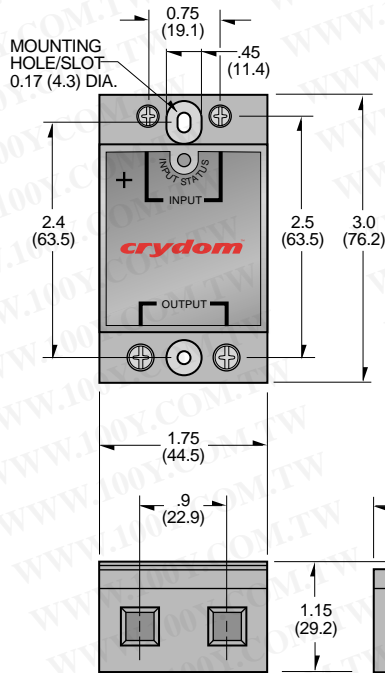
Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Cage Type
Maximum Wire Size- Output: AWG 8 (3.8mm) Input: Awg12 (2.5mm)	

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-ons versions is 0.02msec.
- ⑤ Input circuitry incorporates active current limiter.



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MECHANICAL DIMENSIONS

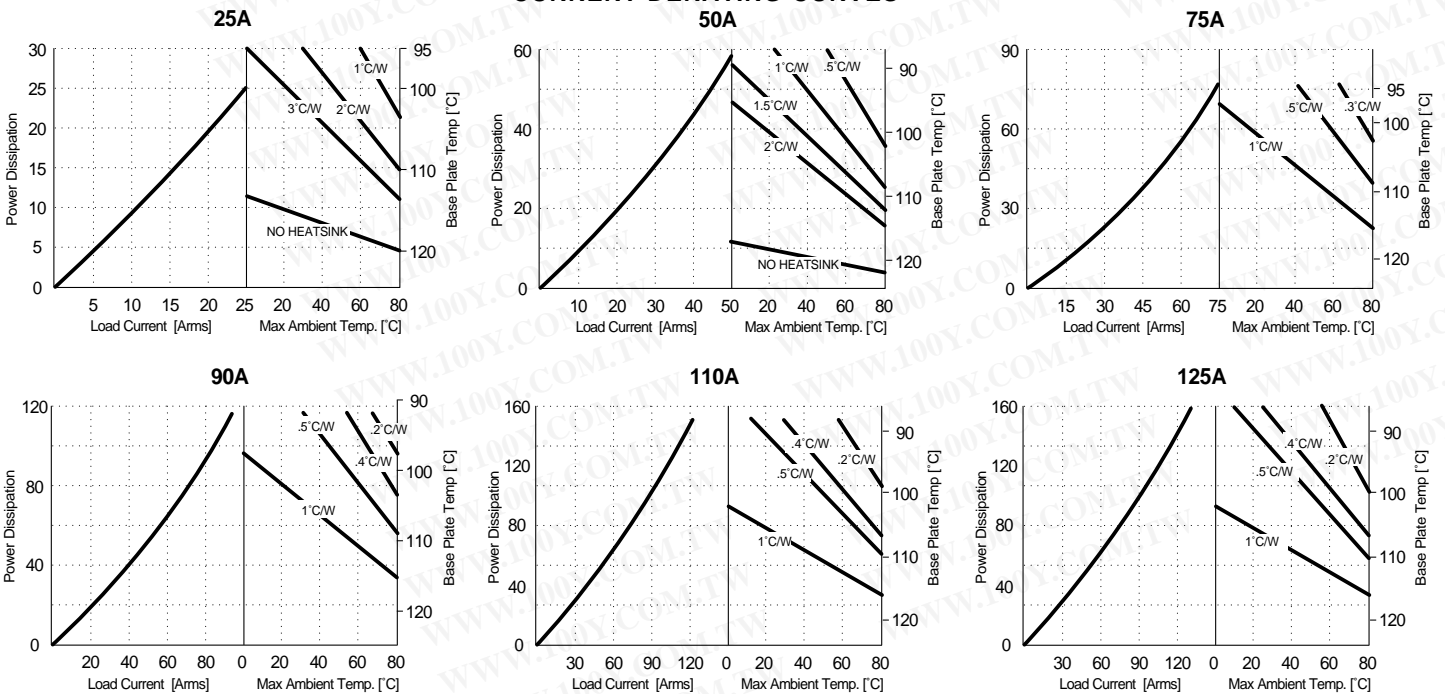
All dimensions are in inches (millimeters)

CMRD60/CMRA60 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: **CMD6050-10**
- E** 24 Vac Input (18-36 Vac)
Example: **CMA6050E**
- P** Internal Overvoltage Protection. Relay Will Self Trigger Between 900-1200Vpk. Not Suitable For Capacitive Loads.
Example: **CMD6050P**

CURRENT DERATING CURVES



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APPROVALS

UL E116949, E116950
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