

Series CMD24/CMA24

25-125Amp • 240 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	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	30.0mA⑤	—
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

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: AWG 6 (4.1mm) Input: AWG10 (2.6mm)	

©1998 CRYDOM CORP, Specifications subject to change without notice.

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> **FASTFAX Product Information:** (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

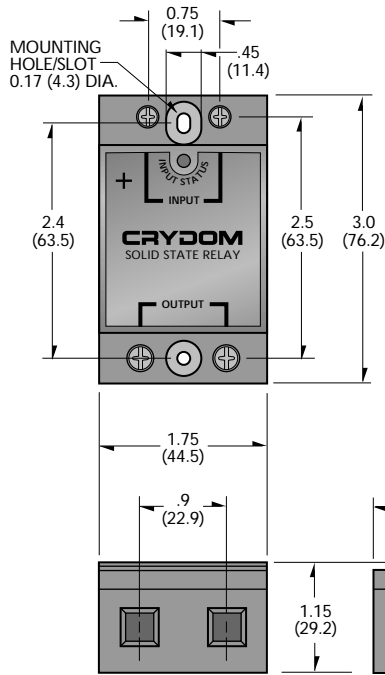
GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com



Series CMD24/CMA24

25-125Amp • 240 Vac • AC Output



MECHANICAL SPECIFICATIONS

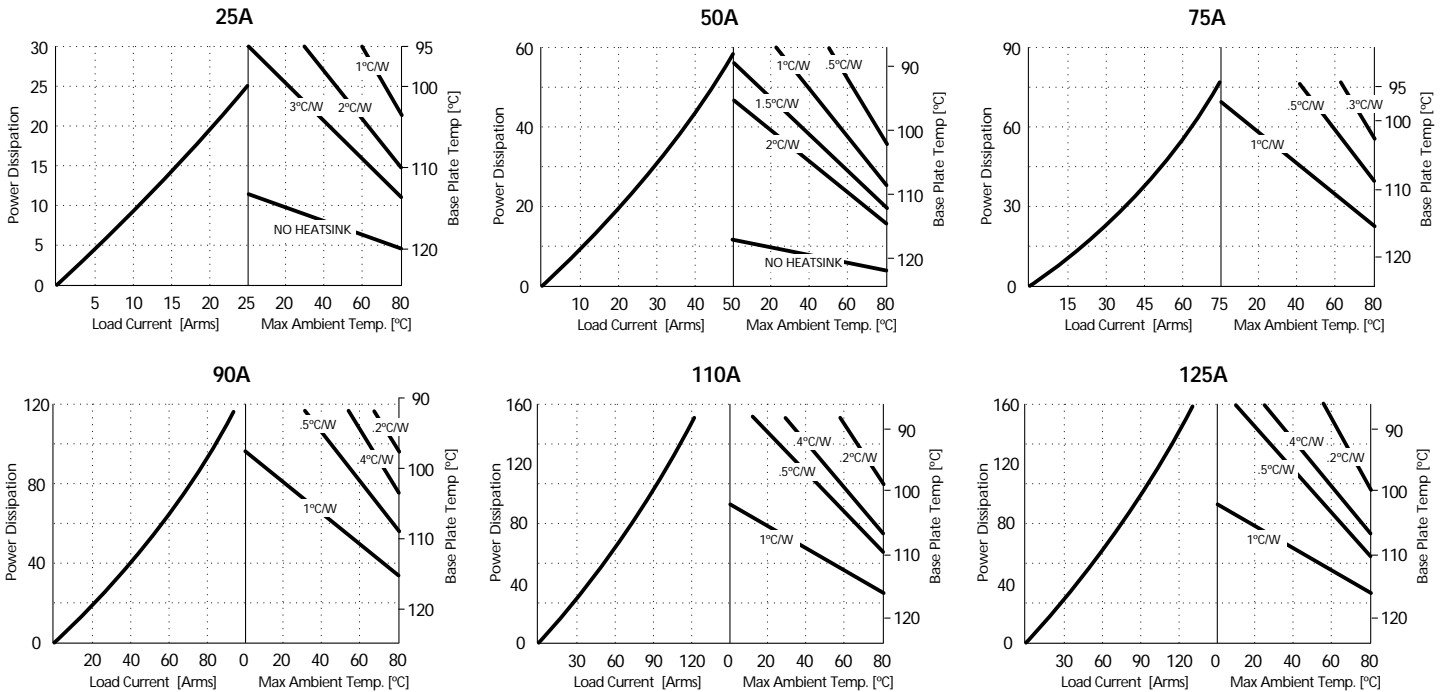
All dimensions are in inches (millimeters)

CMD24/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**

CURRENT DERATING CURVES



©1998 CRYDOM CORP, Specifications subject to change without notice.

APPROVALS

UL PENDING
CSA PENDING
VDE PENDING



FastFax Document No. 170
CMD/CMA.060398, PAGE 2 OF 6

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280
Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com
WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191
UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU
GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH, Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com





Series CMD48/CMA48

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 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 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 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: AWG6 (4.1mm) Input: AWG10 (2.6mm)	

©1998 CRYDOM CORP, Specifications subject to change without notice.

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: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

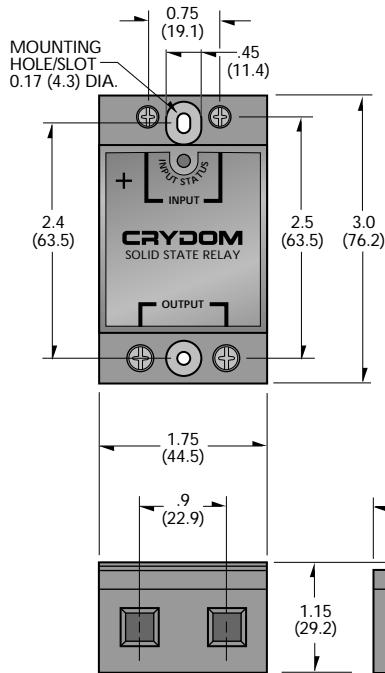
Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com





Series CMD48/CMA48

25-125Amp • 480 Vac • AC Output



MECHANICAL SPECIFICATIONS

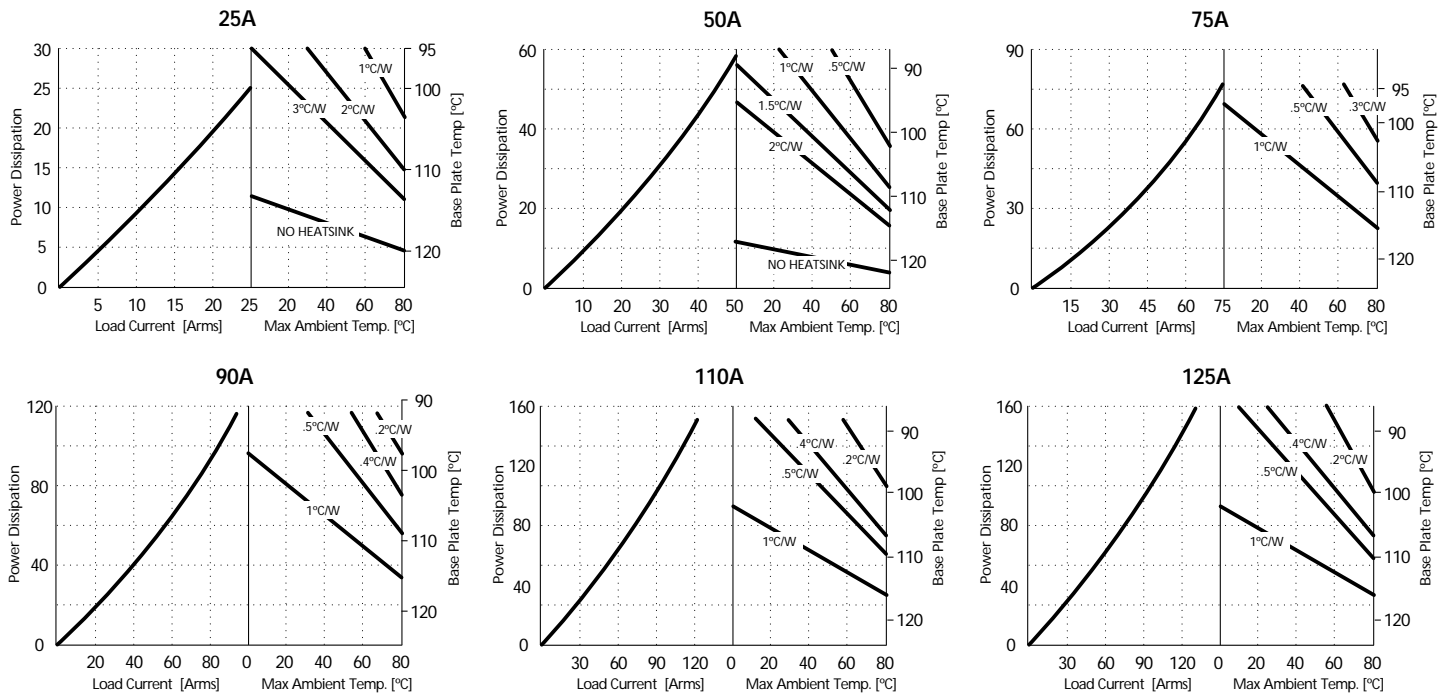
All dimensions are in inches (millimeters)

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**

CURRENT DERATING CURVES



©1998 CRYDOM CORP, Specifications subject to change without notice.

APPROVALS

UL PENDING
CSA PENDING
VDE PENDING



For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> **FASTFAX Product Information:** (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com





Series CMD60/CMA60

25-125Amp • 600 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	CMD6025 CMA6025	CMD6050 CMA6050	CMD6075 CMA6075	CMD6090 CMA6090	CMD60110 CMA60110	CMD60125 CMA60125
OUTPUT SPECIFICATIONS ①						
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 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 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

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)	

©1998 CRYDOM CORP, Specifications subject to change without notice.

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

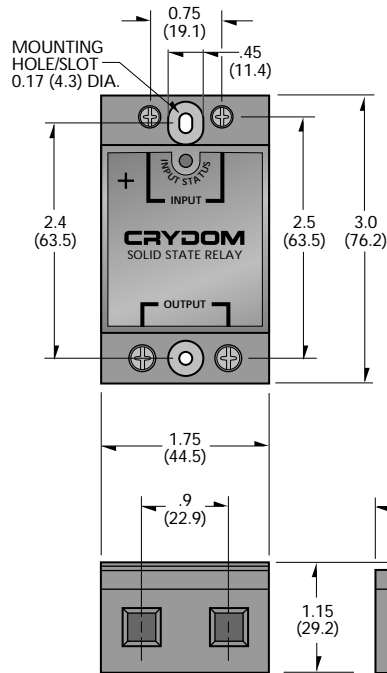
Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com





Series CMD60/CMA60

25-125Amp • 600 Vac • AC Output



MECHANICAL DIMENSIONS

All dimensions are in inches (millimeters)

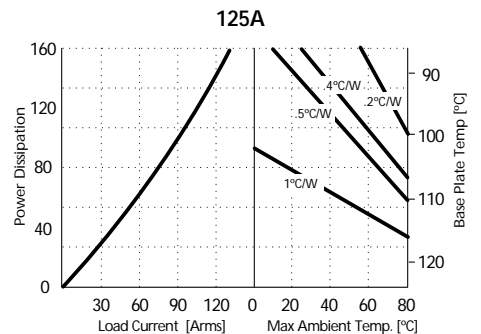
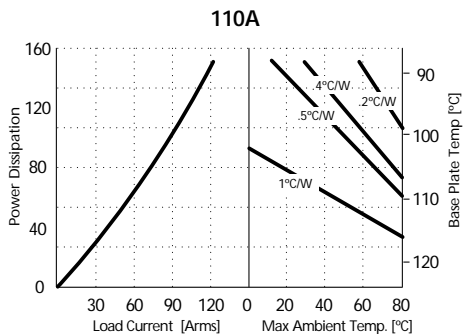
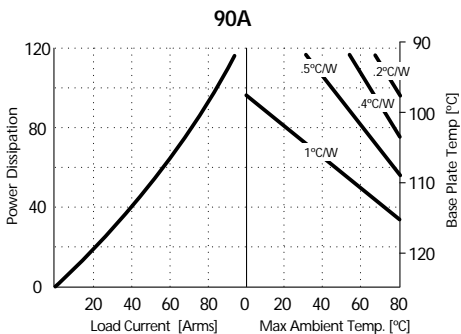
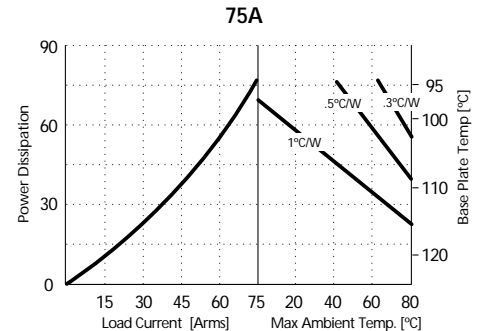
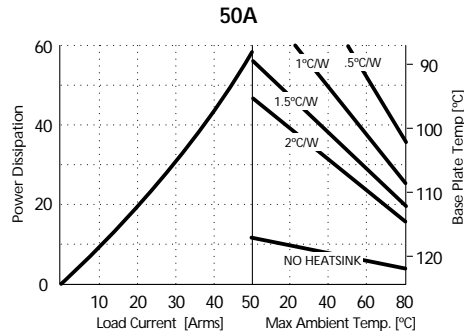
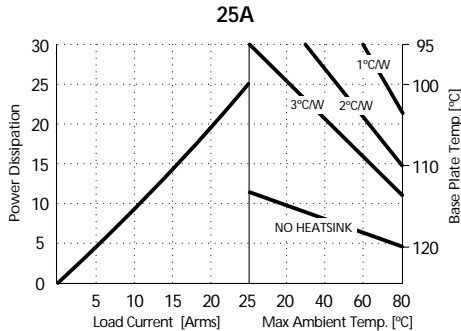
CMRD60/CMRA60 available with factory mounted heat sink and DIN rail mounting clip. Specifications available via FastFax, request document No. 171.

AVAILABLE OPTIONS

-10 Random Turn-On, Phase Controllable
Example: **CMD6050-10**

E 24 Vac Input (18-36 Vac)
Example: **CMA6050E**

CURRENT DERATING CURVES



©1998 CRYDOM CORP, Specifications subject to change without notice.

APPROVALS

UL PENDING
CSA PENDING
VDE PENDING



FastFax Document No. 170
CMD/CMA.060398, PAGE 6 OF 6

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> **FASTFAX Product Information:** (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,

Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com

