

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
<http://www.100y.com.tw>

- 1200 Volt Blocking
- Panel Mount
- Up to 660 Vac
- Zero Voltage and Random Turn-On
- SCR Output
- Integrated Overvoltage Protection by Automatic Self Turn-On (Suffix P)

High voltage relays use IC driven circuits for switching loads up to 660 VAC. All models come with 1200 Volts blocking and are available with either AC or DC input (coil) control. Types H12CA and H12CD are snubberless (reduced leakage current). Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	DC CONTROL	H12CD4850	H12CD4890
	AC CONTROL	H12CA4850	H12CA4890
OUTPUT SPECIFICATIONS ①			
Operating Voltage (47-63 Hz) [Vrms]		48-660	48-660
Max. Load Current ③ [Arms]		50	90
Min. Load Current, [mArms]		150	150
Transient Overvoltage [Vpk]		1200	1200
Max. Surge Current, (16.6ms) [Apk]		625	1200
Max. On-State Voltage Drop @ Rated Current [Vpk]		1.6	1.6
Thermal Resistance Junction to Case ($R_{\theta JC}$) [° C/W]		.63	.28
Maximum $I^2 t$ for Fusing, (8.3 msec.) [A ² sec]		1620	6000
Max. Off-State Leakage Current @ Rated Voltage [mArms]		1.0	1.0
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec]②		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

INPUT SPECIFICATIONS ①

	DC CONTROL (H12CD PREFIX)	AC CONTROL (H12CA PREFIX)
Control Voltage Range	4-15 Vdc	90-140 Vrms
Max. Turn-On Voltage	4.0 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10.0 Vrms
Nominal Input Impedance	300 Ohms	8K Ohms
Typical Input Current	15 mA @ 5 Vdc	15 mA @ 120 Vrms

GENERAL NOTES

© 2003 CRYDOM CORP, Specifications subject to change without notice.

- 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 0.02 msec.

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

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

MECHANICAL SPECIFICATIONS

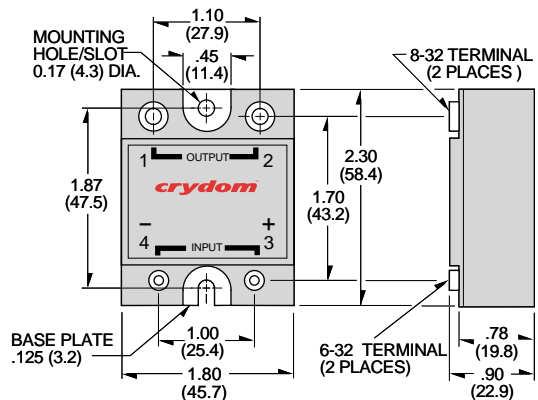
Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished, Unmounted

Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

Available Options

- F** Faston Terminals.
(50 Amp Models Only)
Example: **H12CD4850F**
- G** Input Status LED.
Agencies Approval Pending
Example: **H12CD4850G**
Note: Control Voltage Range 5.5-15Vdc
for DC Control Models.
- P** Internal Overvoltage Protection.
Relay Will Self Trigger Between
900-1200Vpk. Not Suitable For
Capacitive Loads.
Agencies Approval Pending
Example: **H12CD4850P**
- 10** Random Turn-On.
Example: **H12CD4850-10**
- H** Heat Transfer Pad (Attached)
Example: **H12CD4850H**

Ordering System: Combination of the suffixes should be made in the following order:
FPG-10.
 Example: **H12CD4850FPG-10**

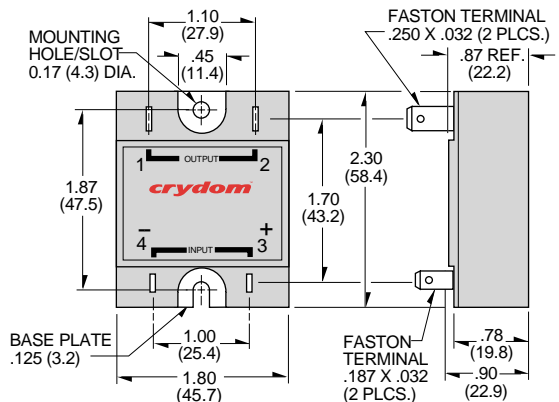


Screw Torque Requirements:

*6-32 Screws - 10 in. lbs.,
 8-32 and 10-32 Screws - 20in. lbs.
 (Screws dry without grease.)

Fastons:

Double pair* (50A model only).
 Caution: User must connect to both pairs



All dimensions are in inches (millimeters)

© 2003 CRYDOM CORP, Specifications subject to change without notice.

APPROVALS

UL E116949
 CSA LR81689
 VDE 10143 UG



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>

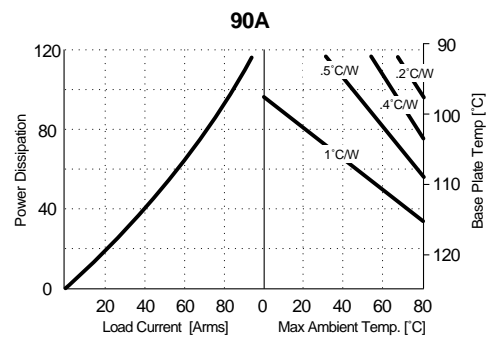
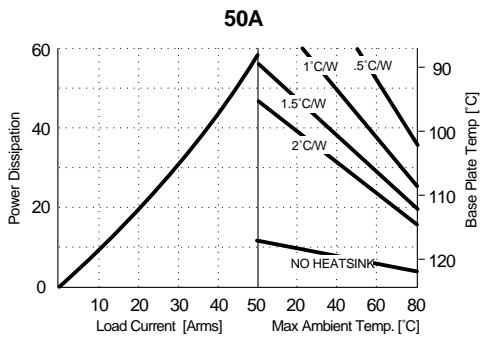
UK: +44 (0)1202 365070 • **FAX** +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, **Email:** intsales@crydom.com.

GERMANY: +49 (0)180 3000 506



勝特力電材超市-龍山店 886-3-5773766
勝特力電材超市-光復店 886-3-5729570
勝特力電子(上海) 86-21-34970699
勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

CURRENT DERATING CURVES



© 2003 CRYDOM CORP, Specifications subject to change without notice.

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

- 1200 Volt Blocking
- Panel Mount
- Up to 530 Vac
- Zero Voltage and Random Turn-On
- SCR Output
- Integrated Overvoltage Protection by Automatic Self Turn-On (Suffix P)

High voltage relays use IC driven circuits for switching loads up to 660 VAC. All models come with 1200 Volts blocking and are available with either AC or DC input (coil) control.

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

MODEL NUMBERS

H12D4825 H12D4850 H12D4875 H12D4890

OUTPUT SPECIFICATIONS ①

	H12D4825	H12D4850	H12D4875	H12D4890
Operating Voltage (47-63 Hz) [Vrms]	48-530	48-530	48-530	48-530
Max. Load Current ③ [Arms]	25	50	75	90
Min. Load Current, [mArms]	150	150	150	150
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]	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{JC}) [°C/W]	1.02	.63	.31	.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 ④	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Max. Turn-Off Time	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS ①

Control Voltage Range	4-32Vdc
Max. Turn-On Voltage	4.0 Vdc
Min. Turn-Off Voltage	1.0 Vdc
Nominal Input Impedance	See Note 5
Typical Input Current	15 mA @ 5 Vdc ⑤

GENERAL NOTES

© 2003 CRYDOM CORP, Specifications subject to change without notice.

- 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 0.02 msec.
- 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>

UK: +44 (0)1202 365070 • FAX +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, Email: intsales@crydom.com.

GERMANY: +49 (0)180 3000 506

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

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

MECHANICAL SPECIFICATIONS

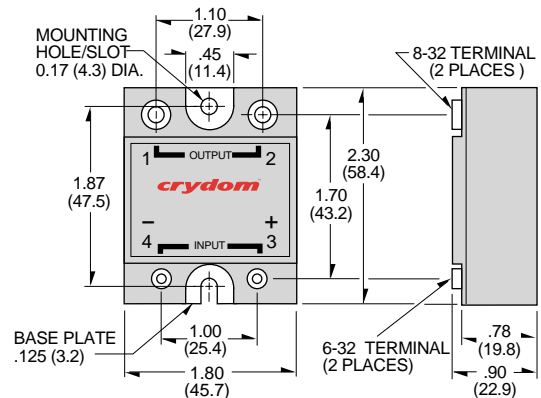
Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished, Unmounted

Available Options

- F** Faston Terminals.
(Up to 50 Amp Models)
Example: **H12D4850F**
- G** Input Status LED.
Agencies Approval Pending
Example: **H12D4850G**
Note: Control Voltage Range 5.5-32 Vdc
- P** Internal Overvoltage Protection.
Relay Will Self Trigger Between 900-1200Vpk. Not Suitable For Capacitive Loads.
Agencies Approval Pending.
Example: **H12D4850P**
- H** Heat Transfer Pad (Attached)
Example: **H12D4850H**

Ordering System: Combination of the suffixes should be made in the following order:
FPG-10.
 Example: **H12D4850FPG-10**

Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

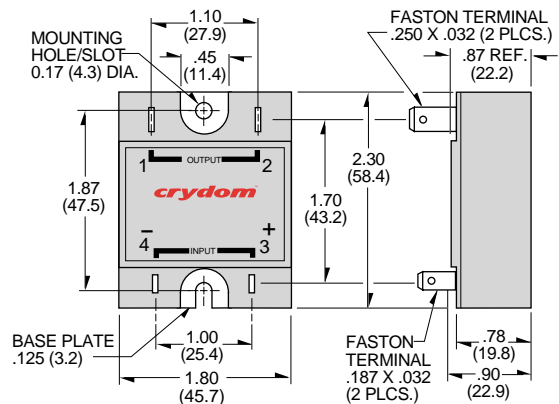


Screw Torque Requirements:

6-32 Screws - 10 in. lbs.,
 8-32 and 10-32 Screws - 20in. lbs.
 (Screws dry without grease.)

Fastons:

Single pair (up to 25A)
 Double pair* (up to 50A).
 *Caution: User must connect to both pairs



All dimensions are in inches (millimeters)

APPROVALS

UL E116949
 CSA LR81689
 VDE 10143 UG



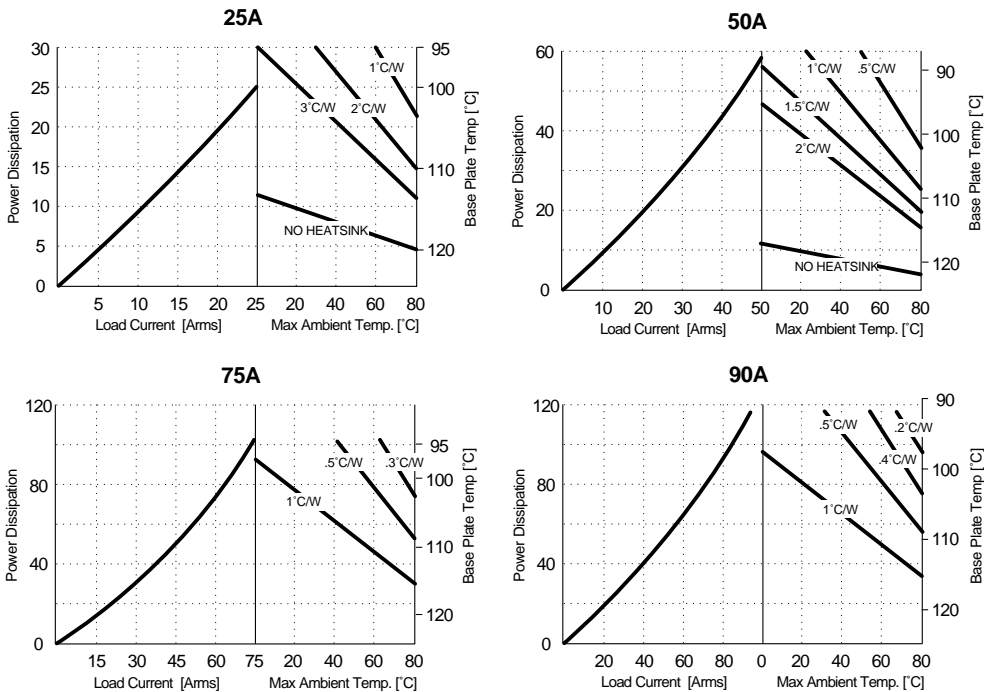
© 2003 CRYDOM CORP, Specifications subject to change without notice.

For recommended applications and more information contact:
USA: Sales Support (877) 502-5500 **Tech Support** (877) 702-7700 **FAX** (619) 710-8540
 Crydom Corp, 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 365070 • **FAX** +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, **Email:** intsales@crydom.com.
GERMANY: +49 (0)180 3000 506



勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
<http://www.100y.com.tw>

CURRENT DERATING CURVES



© 2003 CRYDOM CORP, Specifications subject to change without notice.

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

- 1200 Volt Blocking
- Panel Mount
- Up to 660 Vac
- Zero Voltage and Random Turn-On
- SCR Output
- Integrated Overvoltage Protection by Automatic Self Turn-On (Suffix P)

High voltage relays use IC driven circuits for switching loads up to 660 VAC. All models come with 1200 Volts blocking.
 Type H12WD is a snubberless (reduced leakage current).
 Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	H12WD4825	H12WD4850	H12WD4875	H12WD4890	H12WD48125 ^⑥
OUTPUT SPECIFICATIONS ①					
Operating Voltage (47-63 Hz) [Vrms]	48-660	48-660	48-660	48-660	48-660
Max. Load Current ③ [Arms]	25	50	75	90	125
Min. Load Current, [mArms]	150	150	150	150	150
Transient Overvoltage [Vpk]	1200	1200	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]	250	625	1000	1200	1750
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6	1.7
Thermal Resistance Junction to Case (R _{θJC}) [°C/W]	1.02	.63	.31	.28	.22
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]	260	1620	4150	6000	12700
Max. Off-State Leakage Current @ Rated Voltage [mArms]	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
Max. Turn-On Time ④	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Max. Turn-Off Time	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS ①

Control Voltage Range	4-32 Vdc
Max. Turn-On Voltage	4.0 Vdc
Min. Turn-Off Voltage	1.0 Vdc
Nominal Input Impedance	See Note 5
Typical Input Current	15 mA @ 5 Vdc ⑤

GENERAL NOTES

© 2003 CRYDOM CORP, Specifications subject to change without notice.

- 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 0.02 msec.
- ⑤ Input circuitry incorporates active current limiter.
- ⑥ CE Compliant only.

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

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

MECHANICAL SPECIFICATIONS

Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished, Unmounted

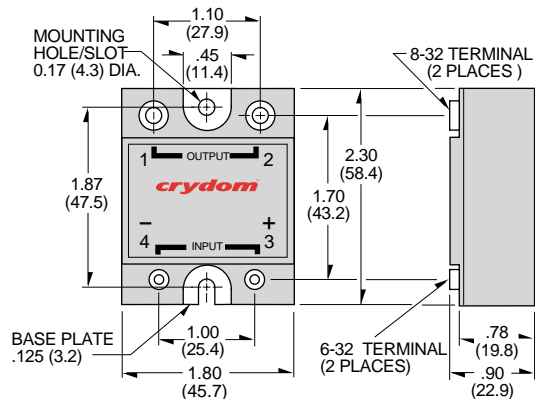
Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

Available Options

- F** Faston Terminals.
(Up to 50 Amp Models)
Example: **H12WD4850F**
- G** Input Status LED.
Agencies Approval Pending
Example: **H12WD4850G**
Note: Control Voltage Range 5.5-32 Vdc
- P** Internal Overvoltage Protection.
Relay Will Self Trigger Between 900-1200Vpk. Not Suitable For Capacitive Loads.
Agencies Approval Pending.
Example: **H12WD4850P**
- 10** Random Turn-On.
Example: **H12WD4850-10**
- H** Heat Transfer Pad (Attached)
Example: **H12WD4850H**

Ordering System: Combination of the suffixes should be made in the following order:
FPG-10.

Example: **H12WD4850FPG-10**

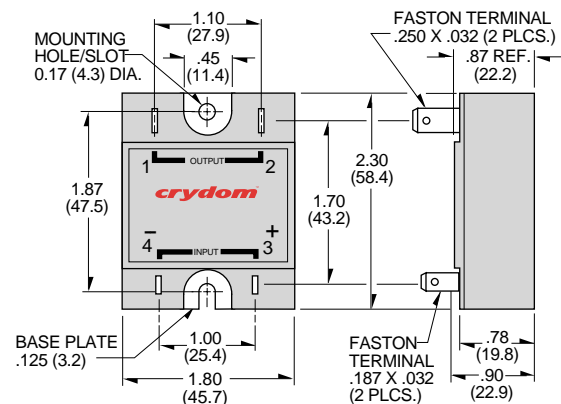


Screw Torque Requirements:

6-32 Screws - 10 in. lbs.,
 8-32 and 10-32 Screws - 20in. lbs.
 (Screws dry without grease.)

Fastons:

Single pair (up to 25A)
 Double pair* (up to 50A).
 *Caution: User must connect to both pairs



All dimensions are in inches (millimeters)

© 2003 CRYDOM CORP, Specifications subject to change without notice.

APPROVALS

UL E116949
 CSA LR81689
 VDE 10143 UG



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

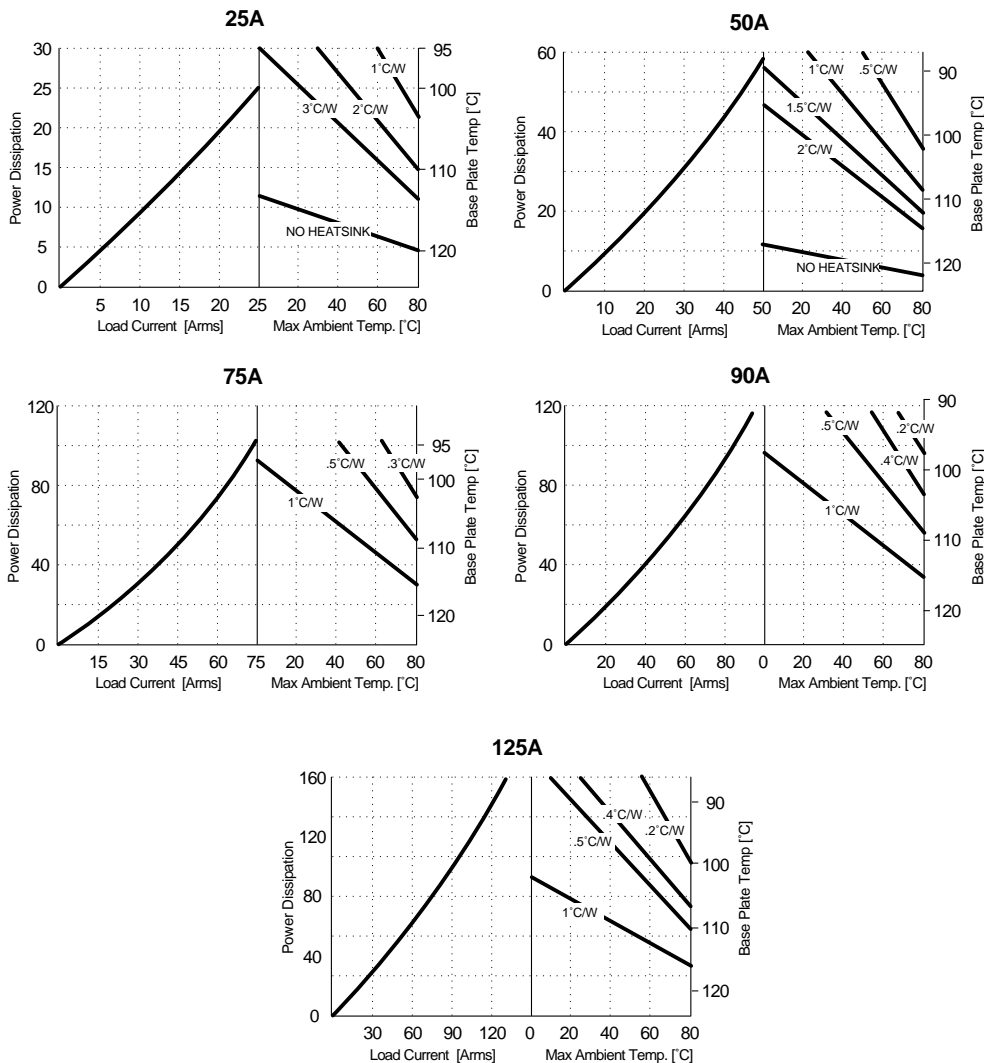
UK: +44 (0)1202 365070 • **FAX** +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, **Email:** intsales@crydom.com.

GERMANY: +49 (0)180 3000 506



勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
<http://www.100y.com.tw>

CURRENT DERATING CURVES



© 2003 CRYDOM CORP, Specifications subject to change without notice.

