

- 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	H12D48125 <sup>⑥</sup>
<b>OUTPUT SPECIFICATIONS</b> <sup>①</sup>					
Operating Voltage (47-63 Hz) [Vrms]	48-530	48-530	48-530	48-530	48-530
Max. Load Current <sup>③</sup> [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 <sub>JC</sub> ) [°C/W]	1.02	.63	.31	.28	.22
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec]	260	1620	4150	6000	12700
Max. Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] <sup>②</sup>	500	500	500	500	500
Max. Turn-On Time <sup>④</sup>	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

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 <sup>⑤</sup>

### GENERAL NOTES

© 2007 CRYDOM Inc., 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.

### GENERAL SPECIFICATIONS

Dielectric Strength 50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 <sup>9</sup> 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

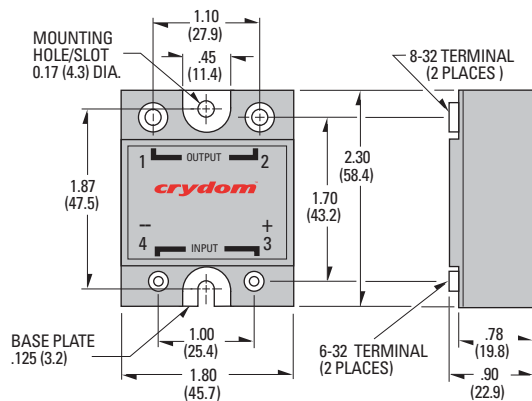
Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished, Unmounted

### 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**
- 10** Random Turn-On.  
Example: **H12D4850-10**
- 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.

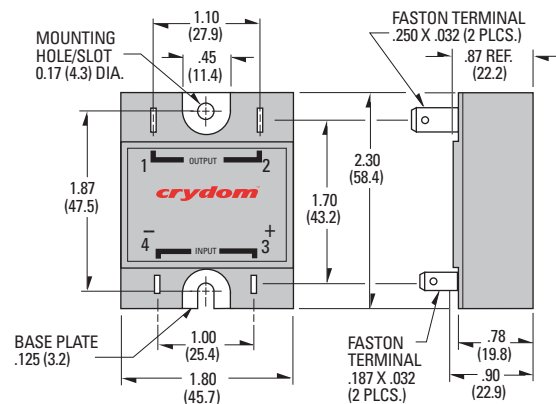


#### Screw Torque Requirements:

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



© 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

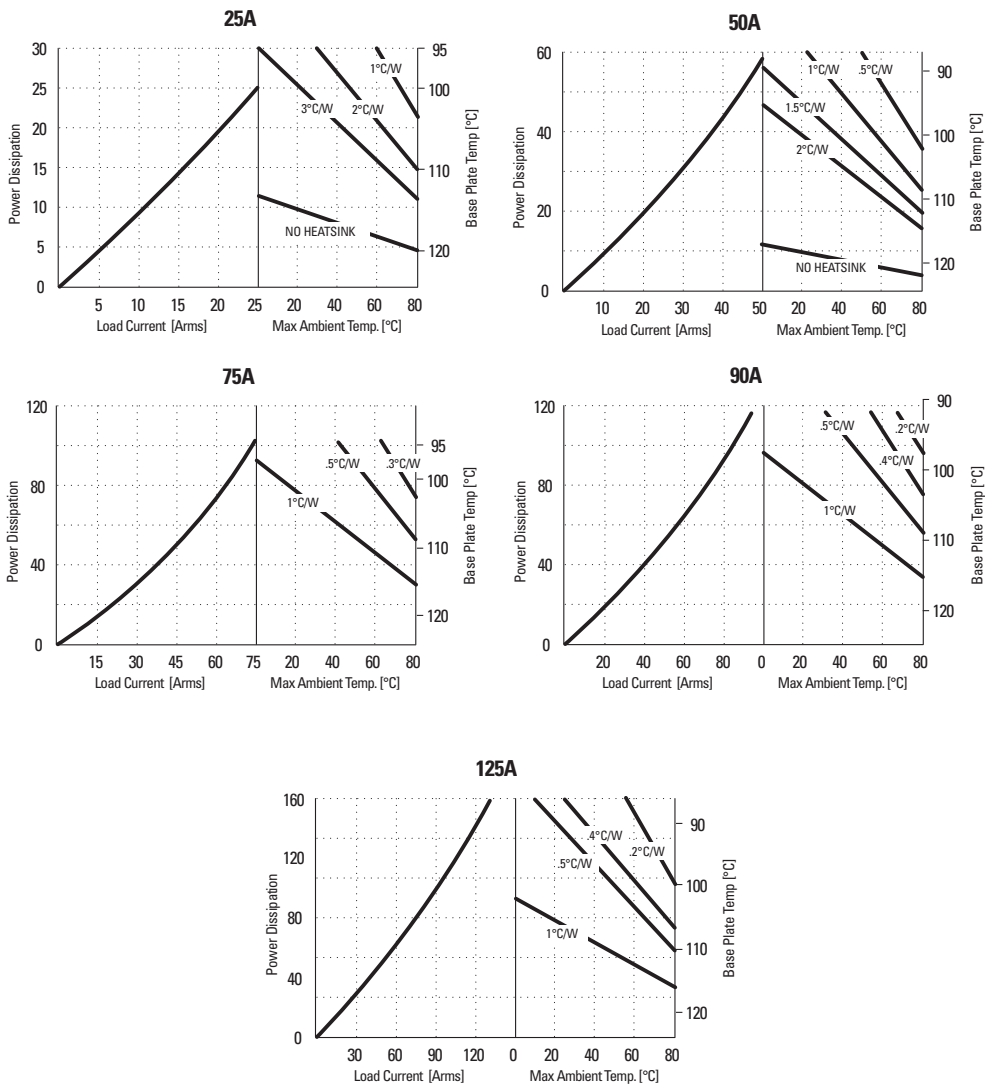
**Email:** sales@crydom.com **WEB SITE:** http://www.crydom.com

**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



## CURRENT DERATING CURVES



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

## ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

### 附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

