



Series H12

25-90Amp • 480 Vac • AC Output

- **1200 Volt Blocking**
- **Panel Mount**
- **Up to 660 Vac**
- **Zero Voltage Switching and Random Turn-On**
- **SCR Output**

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, H12CD and H12WD are snubberless (reduced leakage current). Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	DC CONTROL	H12CD4850 H12WD4850	H12CD4890 H12WD4890	H12D4825	H12D4850	H12D4875	H12D4890
	AC CONTROL	H12CA4850	H12CA4890				

OUTPUT SPECIFICATIONS ①

Operating Voltage (47-63 Hz) [Vrms]	48-660	48-660	48-530	48-530	48-530	48-530
Max. Load Current ③ [Arms]	50	90	25	50	75	90
Min. Load Current, [mArms]	150	150	150	150	150	150
Transient Overvoltage [Vpk]	1200	1200	1200	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]	625	1200	250	625	1000	1200
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]	.63	.28	1.02	.63	.31	.28
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]	1620	6000	260	1620	4150	6000
Max. Off-State Leakage Current @ Rated Voltage [mArms]	1.0	1.0	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 (H12CD PREFIX)	DC CONTROL (H12WD & H12D PREFIX)	AC CONTROL (H12CA PREFIX)
Control Voltage Range	4-8 Vdc	4-32Vdc	90-140 Vrms (60Hz)
Max. Turn-On Voltage	4.0 Vdc	4.0 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	1.0 Vdc	10.0 Vrms
Nominal Input Impedance	220 Ohms	See Note 5	8K Ohms
Typical Input Current	15 mA @ 5 Vdc	15 mA @ 5 Vdc ⑤	15 mA @ 120 Vrms

GENERAL NOTES

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- 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: (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



CRYDOM

Control over power

Series H12

25-90Amp • 480 Vac • AC Output

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)

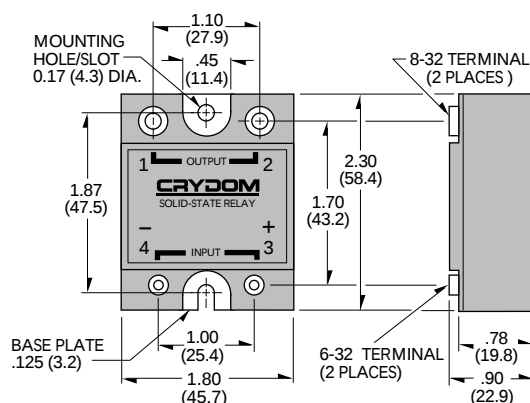
Encapsulation: Thermally Conductive Epoxy

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.

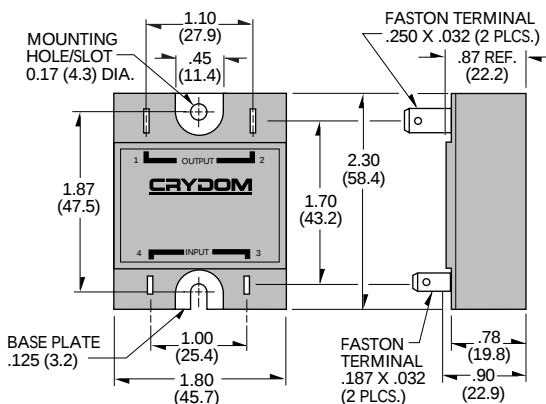
Available Options

F Faston Terminals
(Up to 50 Amp Models)
-10 Random Turn-On
Example: **H12WD4850-10**



Screw Torque Requirements:
6-32 Screws - 10 in./lbs.,
8-32 and 10-32 Screws - 20 in./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)

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APPROVALS

UL E116949
CSA LR81689
VDE 10143 UG



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SERIES H12.081898, PAGE 2 OF 3

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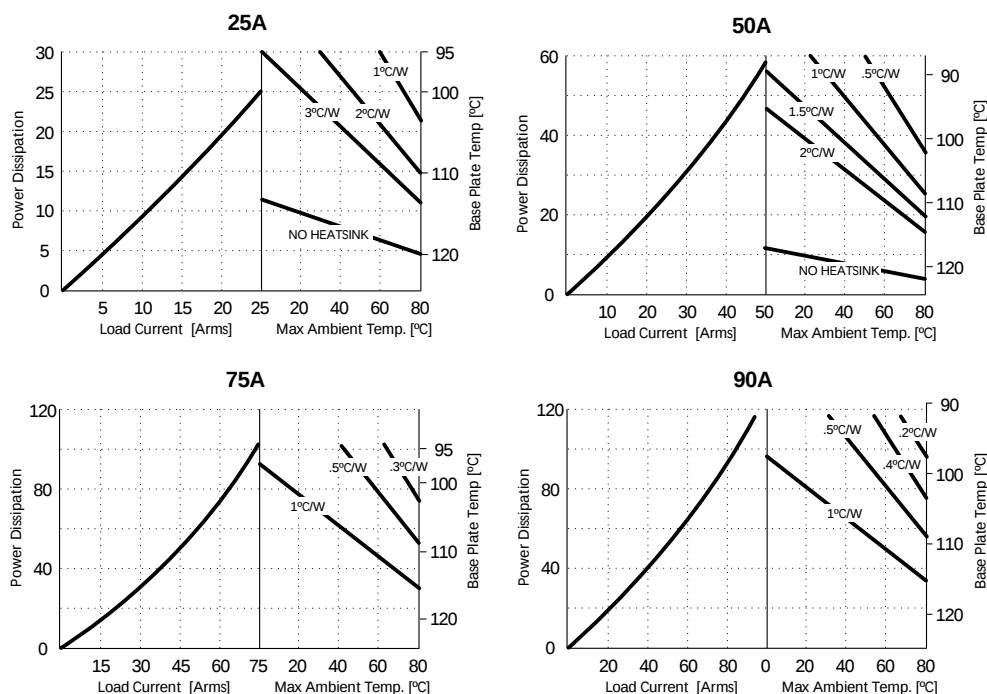
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CURRENT DERATING CURVES



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