



HA / HD48 Series

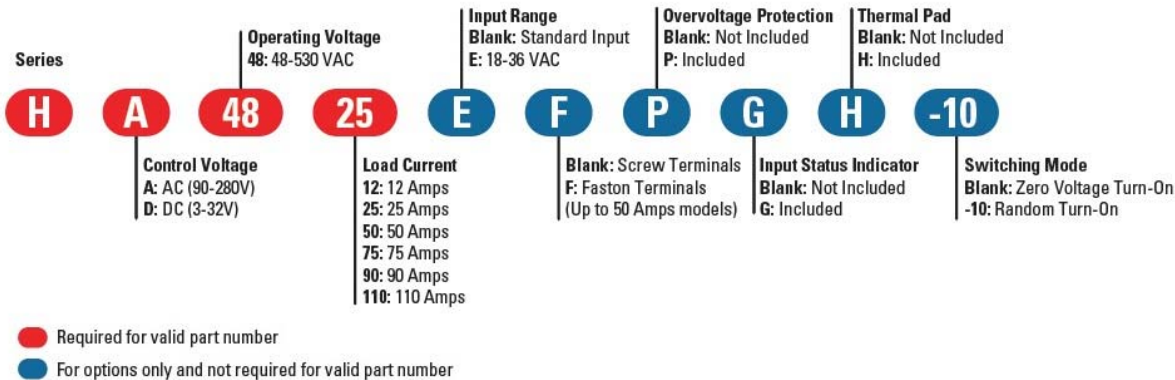


- Ratings from 12A to 125A @ 48-530 VAC
- SCR output for heavy industrial loads
- AC or DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

PRODUCT SELECTION

Control Voltage	12A	25A	50A	75A	90A	110A	125A
3-32 VDC	HD4812	HD4825	HD4850	HD4875	HD4890	HD48110	HD48125
90-280 Vrms	HA4812	HA4825	HA4850	HA4875	HA4890	HA48110	HA48125
18-36 Vrms	HA4812E	HA4825E	HA4850E	HA4875E	HA4890E	HA48110E	HA48125E
90-280 Vrms	HA4812	HA4825	HA4850	HA4875	HA4890	HA48110	HA48125

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (1)

Description	12A	25A	50A	75A	90A	110A	125A
Operating Voltage (47-63Hz) [Vrms]	48-530	48-530	48-530	48-530	48-530	48-530	48-530
Transient Overvoltage [Vpk]	1200	1200	1200	1200	1200	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA rms]	10	10	10	10	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500	500	500	500	500	500
Maximum Load Current (3) [A rms]	12	25	50	75	90	110	125
Minimum Load Current [mA rms]	40	40	40	40	40	150	150
Maximum 1 Cycle Surge Current (50/60Hz) [A pk]	134/140	239/250	597/625	954/1000	1145/1200	1432/1500	1670/1750
Maximum On-State Voltage Drop @ Rated Current [V pk]	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Thermal Resistance Junction to Case [Rjc] °C/W	1.48	1.02	0.63	0.31	0.28	0.25	0.22
Maximum 1/2 Cycle I² t for Fusing (50/60Hz) [A² sec]	89/81	285/259	1779/1621	4555/4150	6560/5976	10249/9338	13950/12709
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5	0.5	0.5

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Panel Mount

INPUT SPECIFICATIONS (1)

Description	D PREFIX	A PREFIX	E PREFIX
Control Voltage Range	3-32 VDC (7)	90-280 Vrms	18-36 Vrms
Maximum Turn-On Voltage	3.0 VDC	90 Vrms	18 Vrms
Minimum Turn-Off Voltage	1.0 VDC	10 Vrms	4.0 Vrms
Maximum Reverse Voltage	-32 VDC	-	-
Typical Input Current	2.0 mA (6)	2 mA @ 120 Vrms, 4mA @ 240 Vrms	3 mA @ 24 Vrms
Nominal Input Impedance	See Note 6	60 K ohms	9.0 K ohms
Maximum Turn-On Time [msec] (5)	1/2 Cycle	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	40	40

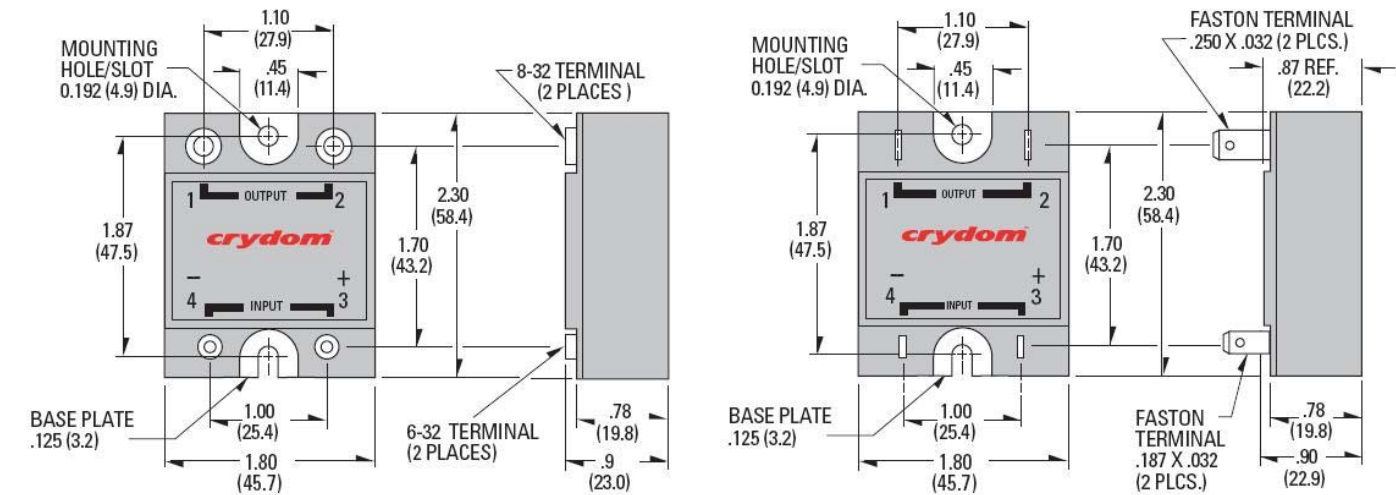
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5 g)
Encapsulation	Thermally conductive Epoxy
Terminals	Screw and saddle Clamps Furnished, Unmounted
Recommended Terminal Screw Torque Range:	6-32 Screws - 10 in/lbs. 8-32 & 10-32 Screws - 20 in. lbs.
Fastons:	Single pair (up to 25A) Double pair* (50A model only) *Caution: User must connect to both pairs

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) 24 VAC Input option, E suffix
- 5) Turn-on time for random turn-on versions is 0.02 msec (DC control Models)
- 6) Input circuitry incorporates active current limiter.
- 7) For relays with option "G" minimum control voltage is 4.5VDC

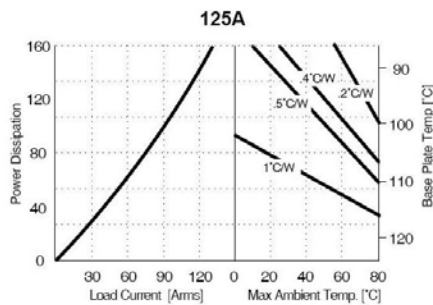
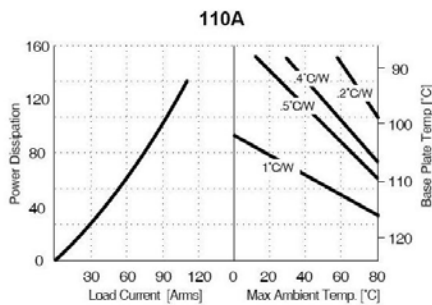
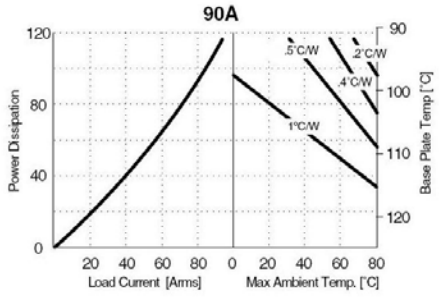
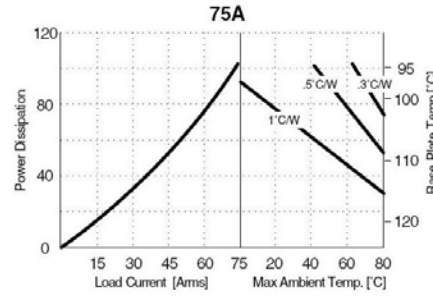
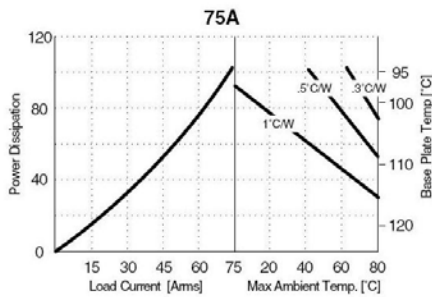
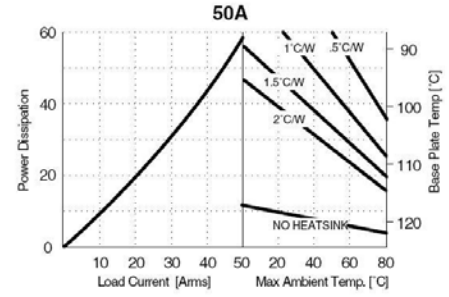
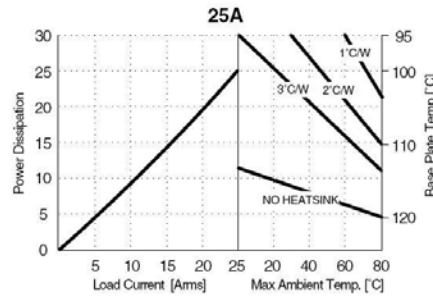
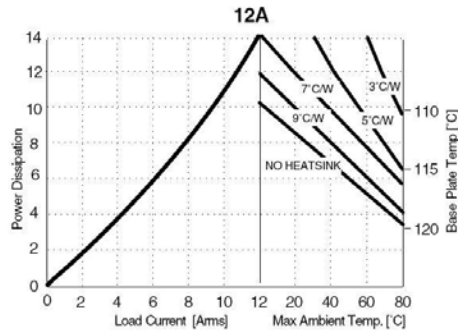
MECHANICAL SPECIFICATIONS



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THERMAL DERATE INFORMATION



AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314.



E116949 (except 90, 110 and 125A models)



LR81689 (except 12, 110 and 125A models)



10143 UG



Rev. 120611