

**crydom**

**Panel Mount**  
DataSheet

## CW48 Series

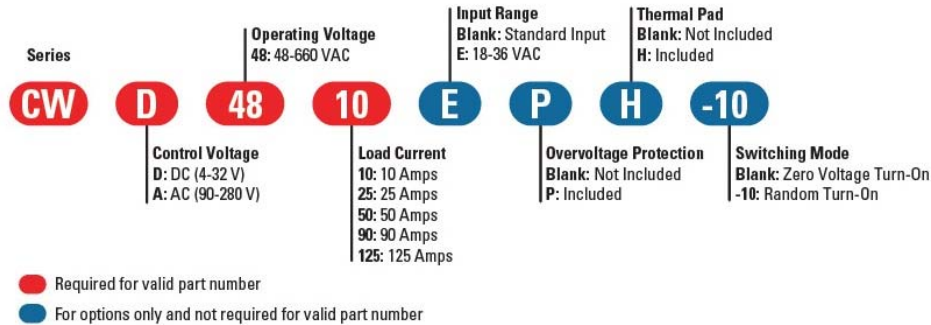


- Ratings from 10A to 125A @ 24-280 VAC and 48-660 VAC
- SCR output for heavy industrial loads
- EMC Compliant for reliable operation in harsh environments
- Removable IP 20 touch-safe cover
- DBC substrate for superior thermal performance
- LED input status indicator
- AC or DC input
- UL/CSA/TUV Approved, CE Compliant to EN60950-1

### PRODUCT SELECTION

Description	10A	25A	50A	90A	125A
4-32 VDC	CWD4810	CWD4825	CWD4850	CWD4890	CWD48125
90-280 Vrms	CWA4810	CWA4825	CWA4850	CWA4890	CWA48125
18-36 Vrms	CWA4810E	CWA4825E	CWA4850E	CWA4890E	CWA48125E

### AVAILABLE OPTIONS



### OUTPUT SPECIFICATIONS (1)

Description	10A	25A	50A	90A	125A
Operating Voltage (47-440Hz) [Vrms]	48-660	48-660	48-660	48-660	48-660
Transient Overvoltage [Vpk]	1200	1200	1200	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	1.0	1.0	1.0	1.0	1.0
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500	500	500	500
Maximum Load Current (3) [Arms]	10	25	50	90	125
Minimum Load Current [Arms]	0.15	0.15	0.15	0.25	0.25
Maximum 1 Cycle Surge Current (50/60) [Apk]	382/400	573/600	810/850	1290/1350	1900/2000
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.3	1.3	1.3	1.3	1.25
Thermal Resistance Junction to Case [Rjc] [°C/W]	0.35	0.35	0.2	0.14	0.13
Maximum I <sup>2</sup> t for Fusing 50/60Hz (1/2 cycle) [A <sup>2</sup> sec]	729/664	1640/1494	2562/2334	6560/5976	13165/19994
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5
HP Ratings: 120 VAC @ FLA	0.5 @ 9.8A	1 @ 16A	2 @ 24A	3 @ 34A	5 @ 56A
HP Ratings: 240 VAC @ FLA	1.5 @ 10A	3 @ 17A	5 @ 28A	7.5 @ 40A	10 @ 50A
HP Ratings: 480 VAC @ FLA	3 @ 8.5A	5 @ 14A	10 @ 21A	10 @ 26A	15 @ 34A

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## INPUT SPECIFICATIONS (1)

Description	CWD	CWA	CWAxxxxE
Control Voltage Range	4-32 VDC	90-280 Vrms	18-36 Vrms
Minimum Turn-On Voltage	4 VDC	90 Vrms	18 Vrms
Minimum Turn-Off Voltage	1.0 VDC	10 Vrms	2 Vrms
Typical Input Current	10 mA @ 12 VDC	6 mA @ 120 Vrms	24 mA @ 24 Vrms
Nominal Input Impedance	See note 5	14.2 K Ohms (6)	1.0 K Ohms
Maximum Turn-On Time [msec] (4)	1/2 Cycle	50	50
Maximum Turn-Off Time [msec]	1/2 Cycle	50	50

## GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 <sup>9</sup> 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 Type, Finger Proof Output: 8-32, Combo rive Input: 6-32, Combo Drive
Max. Torque	Output: 20 in lb (2.2Nm) Input: 10 in lb (1.1Nm)
Max. Wire Size	Output: 2 x AWG 8 (3.8mm) Input: 2 x AWG 12 (2.5mm)

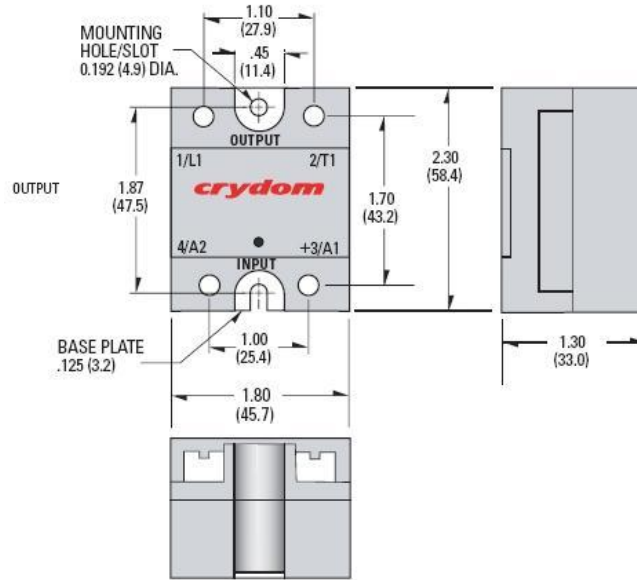
## GENERAL NOTES

- 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 random turn-on version is 0.02 msec.
- 5) Input circuit incorporates active current limiter
- 6) 21.5K ohms for random turn-on version (-10 suffix)



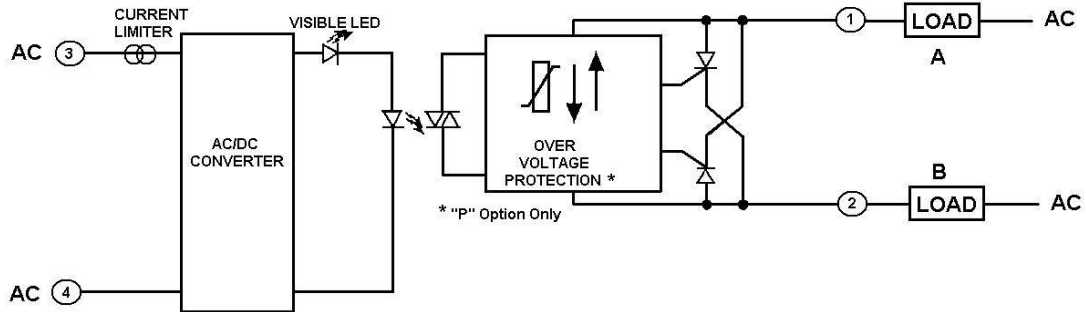
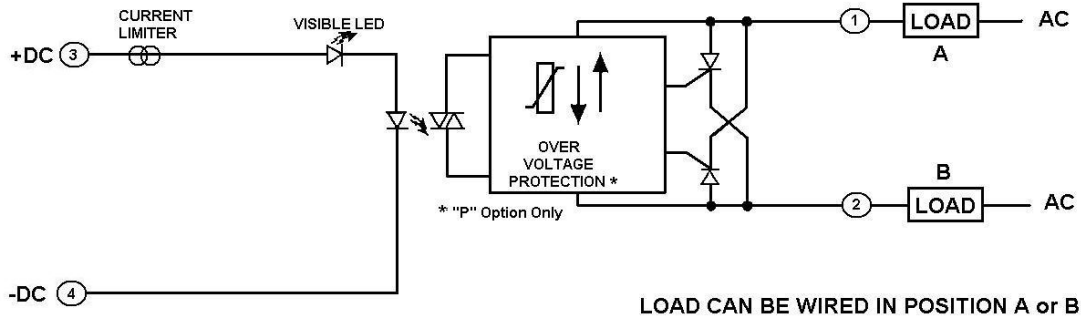
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## MECHANICAL SPECIFICATIONS



All dimensions are in inches (millimeters)

## WIRING DIAGRAM

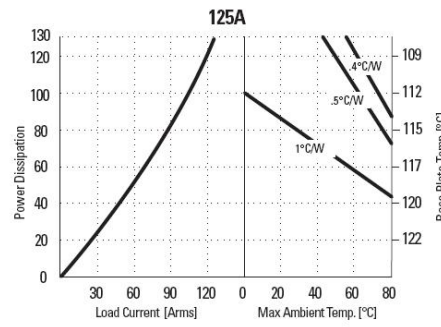
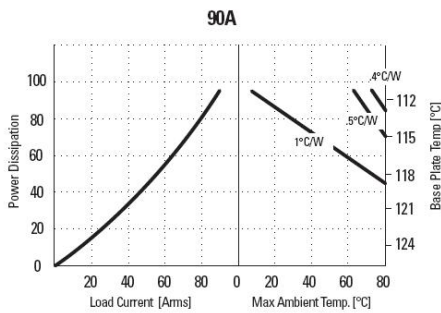
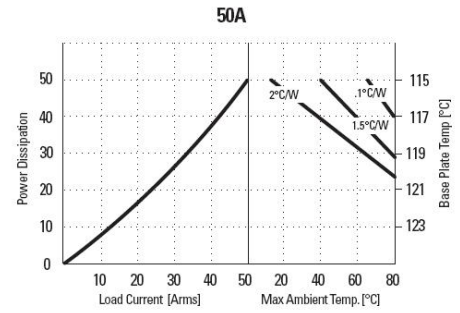
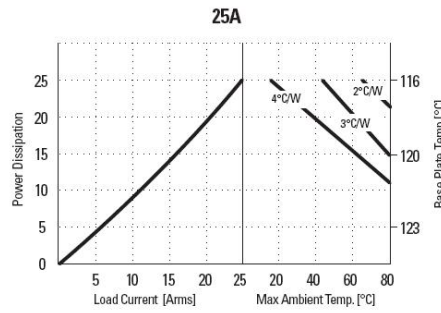
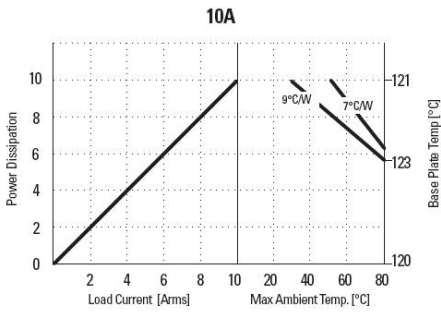




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## THERMAL DERATE INFORMATION

### CURRENT DERATING CURVES



## AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314  
 EN60950 : Meets the requirements of sections 1.5: 1.7: 2.9: 2.10.5.3: 4.2: 4.5: 4.7:  
 IEC 61000-4-2 : Electrostatic Discharge – Level 3 (Level 4 with “P” option)  
 IEC 61000-4-3 : Radiated Electromagnetic Noise – Level 3  
 IEC 61000-4-4 : Electrically Fast Transients – Level 3 (Level 4 with “P” option)  
 IEC 61000-4-5 : Electrical Surges – Level 3  
 IEC 61000-4-6 : Conducted Electromagnetic Noise – Level 3

