Solid State Relays - Panel Mount: CW48

Features

SCR output • 10-125Amp • 48-660 Vrms • AC Switching • AC/DC control • Finger-proof cover • Status indicating LED • Snubber and snubberless versions • Improved thermal ratings and lower power dissipation.

	INPUT SPECIFICATIONS	OUTPUT SPECIFICATIONS			
Product	**Control Voltage Range**	**Load Current**	**Switching Voltage Type**	**Turn On**	**Load Voltage Range**
CWD4810	4-32 Volts DC	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4810-10	4-32 Volts DC	0.15-10 Amps RMS	AC	Random	48-660 Volts RMS
CWD4810P	4-32 Volts DC	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4810S	4-32 Volts DC	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD48125	4-32 Volts DC	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD48125-10	4-32 Volts DC	0.25-125 Amps RMS	AC	Random	48-660 Volts RMS
CWD48125P	4-32 Volts DC	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS

CWA48125	90-280 Volts RMS	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA48125-10	90-280 Volts RMS	0.25-125 Amps RMS	AC	Random	48-660 Volts RMS
CWA48125E	18-36 Volts RMS	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA48125P	90-280 Volts RMS	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA48125S	90-280 Volts RMS	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4825	90-280 Volts RMS	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4825-10	90-280 Volts RMS	0.15-25 Amps RMS	AC	Random	48-660 Volts RMS
CWA4825E	18-36 Volts RMS	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4825P	90-280 Volts RMS	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4825S	90-280 Volts RMS	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4850	90-280 Volts RMS	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4850-10	90-280 Volts RMS	0.15-50 Amps RMS	AC	Random	48-660 Volts RMS
CWA4850E	18-36 Volts RMS	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4850P	90-280 Volts RMS	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4850S	90-280 Volts RMS	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4890	90-280 Volts RMS	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4890-10	90-280 Volts RMS	0.25-90 Amps RMS	AC	Random	48-660 Volts RMS
CWA4890E	18-36 Volts RMS	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS

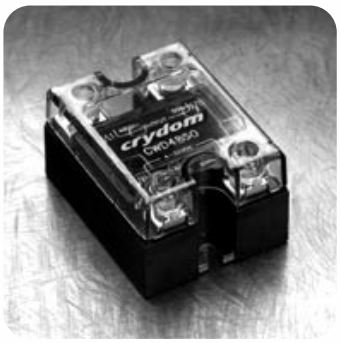
CWD48125S	4-32 Volts DC	0.25-125 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4825	4-32 Volts DC	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4825-10	4-32 Volts DC	0.15-25 Amps RMS	AC	Random	48-660 Volts RMS
CWD4825P	4-32 Volts DC	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4825S	4-32 Volts DC	0.15-25 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4850	4-32 Volts DC	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4850-10	4-32 Volts DC	0.15-50 Amps RMS	AC	Random	48-660 Volts RMS
CWD4850P	4-32 Volts DC	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4850S	4-32 Volts DC	0.15-50 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4890	4-32 Volts DC	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4890-10	4-32 Volts DC	0.25-90 Amps RMS	AC	Random	48-660 Volts RMS
CWD4890P	4-32 Volts DC	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWD4890S	4-32 Volts DC	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4810	90-280 Volts RMS	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4810-10	90-280 Volts RMS	0.15-10 Amps RMS	AC	Random	48-660 Volts RMS
CWA4810E	18-36 Volts RMS	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4810P	90-280 Volts RMS	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4810S	90-280 Volts RMS	0.15-10 Amps RMS	AC	Zero cross	48-660 Volts RMS

CWA4890P	90-280 Volts RMS	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS
CWA4890S	90-280 Volts RMS	0.25-90 Amps RMS	AC	Zero cross	48-660 Volts RMS

crydom™

CW48

10-125Amp - 600Vac - AC OUTPUT



- **1200V Blocking**
- **Low Leakage**
- **SCR Output**
- **Zero and Random Voltage Switching**
- **LED Status Indicator**
- **Panel Mount**
- **Intergrated Removable Fingerproof Cover**
- **User Friendly, Universal Connectors**
- **EMC Compliant Design**

The Series CW48 has an SCR AC switch output featuring low off-state leakage (1mA, snubberless), zero and random voltage switching and a broadened operating range (48-660Vac).
This wide range permits optimum perfomance at voltages from 240 Vac to 600 Vac line voltages.
Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	DC Control AC Control	CWD4810 CWA4810	CWD4825 CWA4825	CWD4850 CWA4850	CWD4890 CWA4890	CWD48125 CWA48125
OUTPUT SPECIFICATIONS ①						
Operating Voltage (47-63 Hz) [Vrms] ⑧		48-660	48-660	48-660	48-660	48-660
Load Current Range ③ [Arms]		0.15-10	0.15-25	0.15-50	0.25-90	0.25-125
Transient Overvoltage [Vpk]		1200	1200	1200	1200	1200
Max. Surge Current (16.6ms) [Apk]		400	600	850	1350	2000
Max. Surge Current (20ms) [Apk]		380	570	810	1290	1900
Max. On-State Voltage Drop @ Rated Current [Vpk]		1.3	1.3	1.3	1.3	1.25
Thermal Resistance Junction to Case ($R_{\theta JC}$) [°C/W]		0.35	0.35	0.2	0.14	0.13
Maximum I^2t for Fusing, (8.3 ms) [A^2s]		660	1500	3000	7560	16600
Maximum I^2t for Fusing, (10 ms) [A^2s]		720	1620	3280	8320	18000
Max. Off-State Leakage Current @ Rated Voltage [mA] ⑥		1.0	1.0	1.0	1.0	1.0
Min. Off-State dv/dt @ Max. Rated Voltage [V/µs] ②		500	500	500	500	500
Max. Turn-On Time ④⑤		1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Max. Turn-Off Time ⑤		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	DC Control	AC Control 24 Vac nominal E - suffix	AC Control 120/240Vac nominal Std. (no suffix)
Control Voltage Range	4-32 Vdc	18-36 Vrms	90-280 Vrms
Max. Turn-On Voltage	4 Vdc	18 Vrms	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	2 Vrms	10 Vrms
Nominal Input Impedence	See note 7	1 k ohm	21.5 k ohms
Typical Input Current	10 mA @ 12 Vdc	24mA@24Vrms	6 mA @ 120 Vrms

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 Turn-on and turn-off time for AC input models is 50ms.
⑥ 10mA for models with snubber.
⑦ Input circuit incorporates active current limiter.
⑧ 48-530 Vrms for models with snubber.

crydom™ ISO9001 certified

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	Screw Type, Finger Proof Output: 8-32, Combo Drive 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)

Available Options

-10 Random Turn-On.
Example: **CWD4825-10**

E 24 Vac Input (18-36 Vac)
Example: **CWA4825E**

P Internal Overvoltage Protection.
Relay Will Self Trigger Between
900-1200 Vpk. Not Suitable For Capacitive Loads.
Example: **CWD4825P**

S Internal Snubber Example: **CWD4825S**

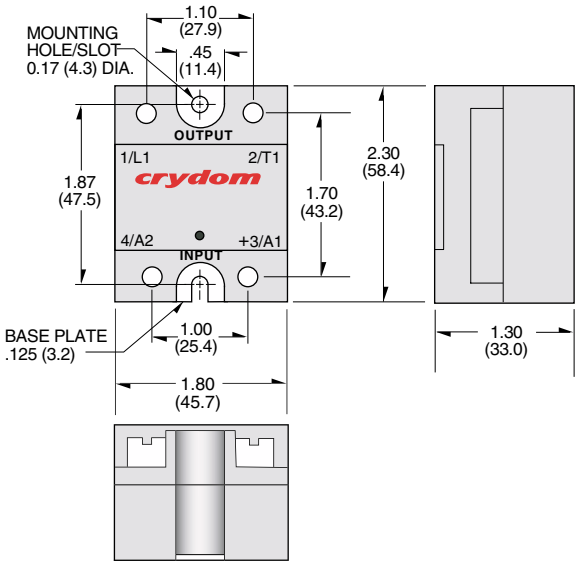
H Heat Trasfer Pad (Attached)
Example: **CWD4825H**

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.

EMC Compatibility

Input:	EN61000-4-2,	Level 3 ESD
	EN61000-4-4,	Level 3 Burst
Output:	EN61000-4-2,	Level 3 ESD
		Level 4 ESD (with P option)
	EN61000-4-4,	Level 3 Burst
		Level 4 Burst (with P option)
	EN61000-4-5,	Level 4 Surge

MECHANICAL OUTLINE



All dimensions are in inches (millimeters)

APPROVALS

UL E116949
CSA 1405925
VDE 40007242

CE