

- SCR Output
- 10A, 20A & 30A Models
- Ground Terminal Included
- Zero Voltage and Random Turn-On Switching
- Low Leakage
- Integral Heatsink (22.5 mm)
- DIN Rail & Panel Mount
- Status Indicating LED
- DC or AC Control
- Integrated Overvoltage Protection by Automatic Self Turn-On (Suffix P Option)

The Series CKR Solid State Relays utilize Crydom's proprietary thermal management technology providing a compact and efficient design. Built-in DIN Rail attachment, easy-to-use Box Clamp type terminals and integral heat sinking complete the package. This compact new design offers up to 30Arms in ambient temperatures of 25° C.

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	CKRD4810 CKRA4810	CKRD4820 CKRA4820	CKRD4830 CKRA4830
<b>OUTPUT SPECIFICATIONS</b> ①			
Operating Voltage (47-63 Hz) [Vrms]	48-530	48-530	48-530
Max. Load Current @ 25°C Ambient Temperature [Arms]	10	20	30
Min. Load Current, [Arms]	0.15	0.15	0.15
Transient Overvoltage [Vpk]	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]	120	250	625
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec]	60	260	1620
Max. Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②	200	500	500
Max. Turn-On Time ③	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

INPUT SPECIFICATIONS	DC CONTROL	AC CONTROL Standard	AC CONTROL (E Suffix)
Control Voltage Range	4.5-32 Vdc	90-280 Vrms	18-36 Vrms
Max. Turn-On Voltage	4.5 Vdc	90 Vrms	18 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10 Vrms	4.0 Vrms
Typical Input Current ④	15mA @ 12 Vdc, 20mA @ 24Vdc	2mA @ 120 Vrms, 4 mA @ 240Vrms	10mA @ 24 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 Turn-on time for DC control random turn-on versions is 0.02msec.  
 ④ Input circuitry for DC control version incorporates active current limiter.

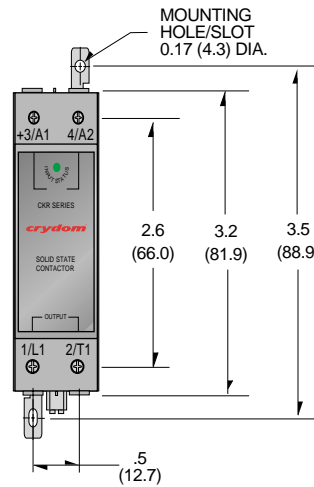
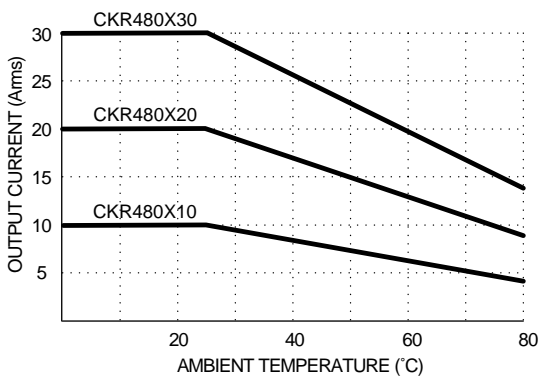
### GENERAL SPECIFICATIONS

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
Status Indicating Display		Green LED

### MECHANICAL SPECIFICATIONS

Weight: (typical)		10 oz. (280g)
Encapsulation:		Thermally Conductive Epoxy
Terminals:		Box Clamp Type
Maximum Wire Size:		AWG #10 (3mm)
Recommended Terminal Screw Torque Range		5.0-6.0 in lb (0.6-0.7Nm)
Min. Side by Side Spacing		0.8 inch (20mm)

### CURRENT DERATING CURVES

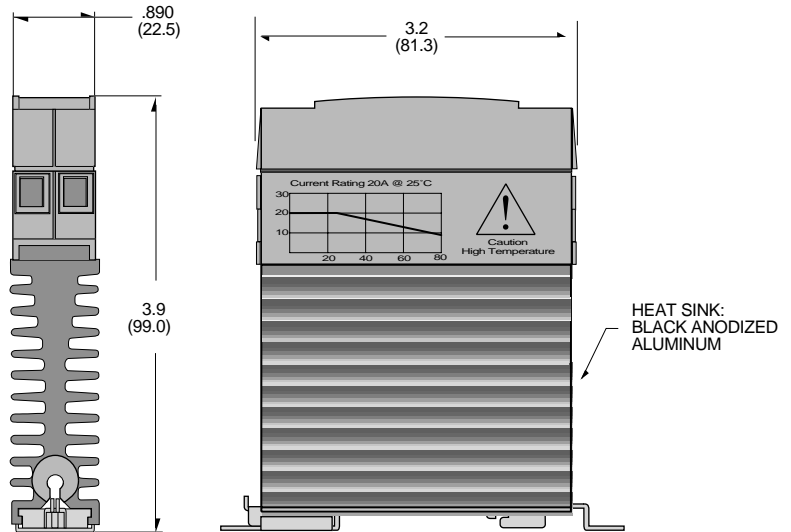


### MECHANICAL SPECIFICATIONS

All dimensions are in inches (millimeters)

### AVAILABLE OPTIONS

- E** 24 Vac Input (18-36 Vac)  
Example: **CKRA4810E**
- P** Internal Overvoltage Protection.  
Relay Will Self Trigger Between 900-1200 Vpk.  
Not Suitable For Capacitive Loads.  
Example: **CKRD4810P** (AC & DC Control)
- 10** Random Turn-On (AC & DC Control)  
Phase Controllable (DC Control)  
Example: **CKRD4810-10**



### APPROVALS

UL E116950  
CSA LR81689  
VDE 129156ÜG **CE**

CKR480  
Rev. 111803  
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