



- 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	4.0-32 Vdc	90-280 Vrms	18-36 Vrms
Max. Turn-On Voltage	4.0 Vdc	90 Vrms	18 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10 Vrms	4.0 Vrms
Typical Input Current ④	8-12 mA	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.

For recommended applications and more information contact:  
**USA:** Sales Support (877) 502-5500 **Tech Support** (877) 702-7700 FAX (619) 710-8540  
 Crydom Inc., 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154  
**Email:** sales@crydom.com **WEB SITE:** http://www.crydom.com  
**UK:** +44 (0)1202 606030 • **FAX** +44 (0)1202 606035 Crydom SSR Ltd., Arena Business Centre,  
 Holyrood Close, Poole, Dorset BH17 7FJ, Email: intsales@crydom.com.  
**GERMANY:** +49 (0)180 3000 506

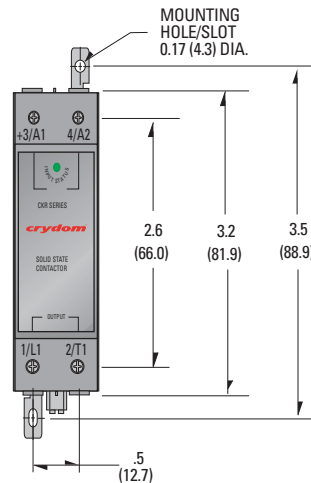
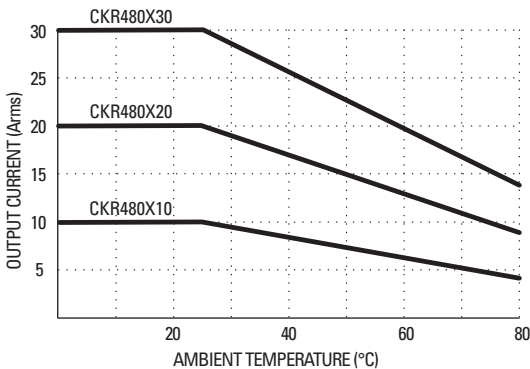
### GENERAL SPECIFICATIONS

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

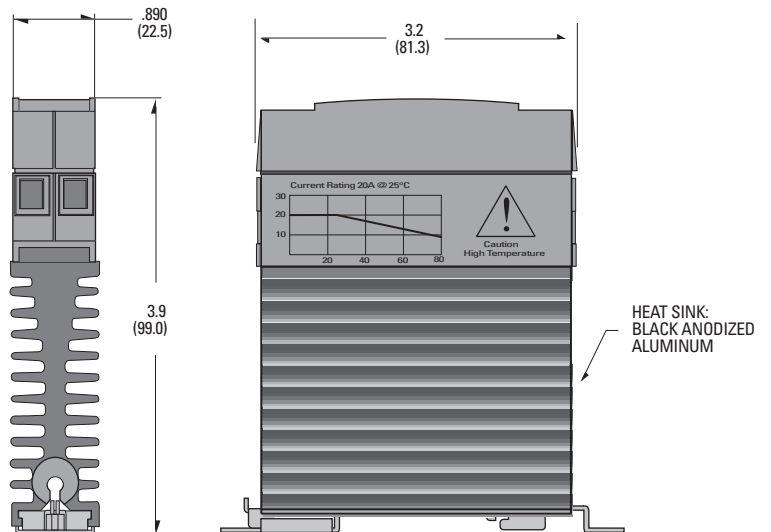


### MECHANICAL SPECIFICATIONS

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



CKR480  
Rev. 052307  
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## ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

### 附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

