



# Series CKR240

10-30Amp • 240 Vac • AC Output

- 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	CKRD2410 CKRA2410	CKRD2420 CKRA2420	CKRD2430 CKRA2430
<b>OUTPUT SPECIFICATIONS</b> ①			
Operating Voltage (47-63 Hz) [Vrms]	24-280	24-280	24-280
Max. Load Current @ 25°C Ambient Temperature [Arms]	10	20	30
Min. Load Current, [Arms]	0.15	0.15	0.15
Transient Overvoltage [Vpk]	600	600	600
Max. Surge Current, (16.6ms) [Apk]	120	250	625
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Maximum $I^2 t$ for Fusing, (8.3 msec.) [ $A^2 sec$ ]	60	260	1620
Max. Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/ $\mu sec$ ] 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.

For recommended applications and more information contact:

USA: Sales Support (877) 502-5500 Tech Support (877) 702-7700 FAX (619) 710-8540  
Crydom Corp, 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154

Email: sales@crydom.com WEB SITE: <http://www.crydom.com>

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GERMANY: +49 (0)180 3000 506





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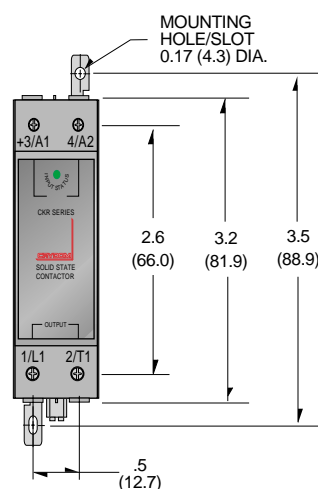
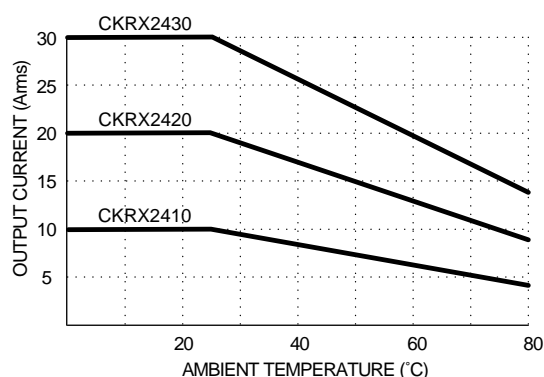
## GENERAL SPECIFICATIONS

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)
Max. Terminal Screw Torque	5.3 in lb (0.6Nm)
Min. Side by Side Spacing	0.8 inch (20mm)

## CURRENT DERATING CURVES

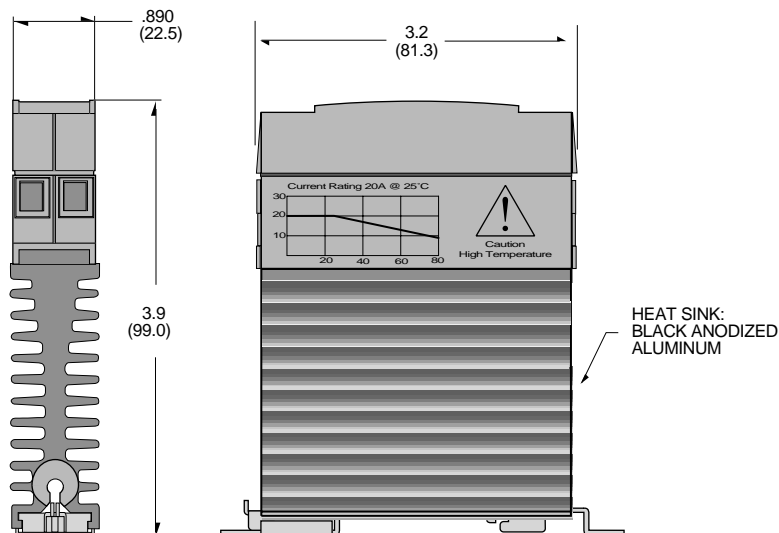


## MECHANICAL SPECIFICATIONS

All dimensions are in inches (millimeters)

## AVAILABLE OPTIONS

- E** 24 Vac Input (18-36 Vac)  
Example: **CKRA2410E**
- P** Internal Overvoltage Protection.  
Relay Will Self Trigger Between 450-600 Vpk.  
Not Suitable For Capacitive Loads.  
Example: **CKRD2410P** (AC & DC Control)
- R** Random Turn-On (AC & DC Control)  
Phase Controllable (DC Control)  
Example: **CKRD2410R**



## APPROVALS

UL E116950  
CSA LR81689  
VDE 129156ÜG

CKR240  
Rev. 012102  
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