



# DIN Rail Mount Datasheet

## CKR24 Series

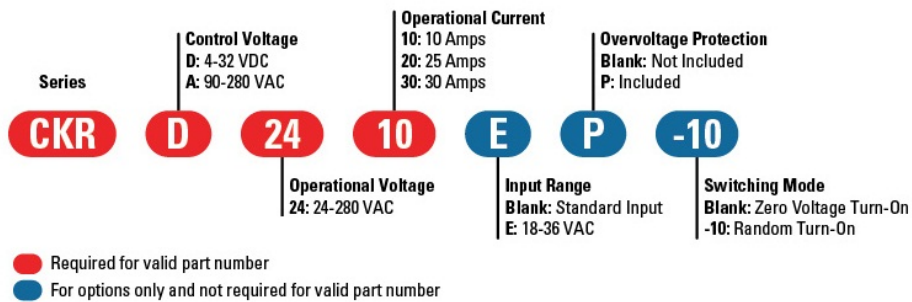


- Ratings from 10A to 30A @ 280 VAC
- Slim 22.5mm (width) package
- SCR output for heavy industrial loads
- LED input status indicator
- AC or DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

### PRODUCT SELECTION

Description	10 A	20 A	30 A
4-32 VDC Control	CKRD2410	CKRD2420	CKRD2430
90-280 VAC Control	CKRA2410	CKRA2420	CKRA2430
18-36 VAC Control	CKRA2410E	CKRA2420E	CKRA2430E

### AVAILABLE OPTIONS



### OUTPUT SPECIFICATIONS (1)

Description	10 A	20 A	30 A
Operating Voltage (47-63Hz) [Vrms]	24-280	24-280	24-280
Transient Overvoltage [Vpk]	600	600	600
Maximum Off-State Leakage Current @ Rated Voltage [mA rms]	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500	500
Maximum Load Current [Arms]	10	20	30
Minimum Load Current [Arms]	0.15	0.15	0.15
Maximum Surge Current (16.6ms) [A pk]	120	250	1200
Maximum 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	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5





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## INPUT SPECIFICATIONS (1)

Description	CKRD24xx	CKRA24xx	CKRA24xxE
Control Voltage Range	4.0-32 VDC	90-280 Vrms	18-36 Vrms
Minimum Turn-On Voltage	4.0 VDC	90 Vrms	18 Vrms
Minimum Turn-Off Voltage	1.0 VDC	10 Vrms	4.0 Vrms
Typical Input Current (4)	8-12 mA	2 mA @ 120 Vrms, 4 mA @ 240 Vrms	10 mA @ 240 Vrms
Maximum Turn-On Time [msec] (3)	1/2 Cycle	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	40	40

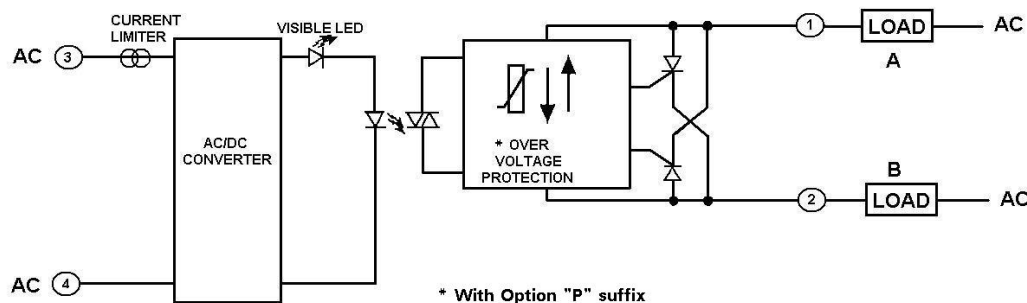
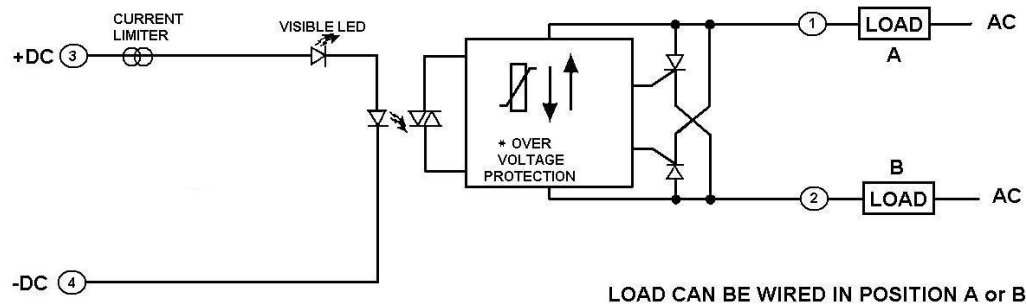
## GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 <sup>9</sup> Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40°C to 80°C
Ambient Storage Temperature Range	-40°C to 125°C
Status Indicator Display	Green LED
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 (0.6-0.7 Nm)
Min. Side by Side Spacing	0.8 inch (20mm)

## 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) Turn-on time for DC control random turn-on versions is 0.02 msec
- 4) Input circuitry for DC control version incorporates active current limiter.

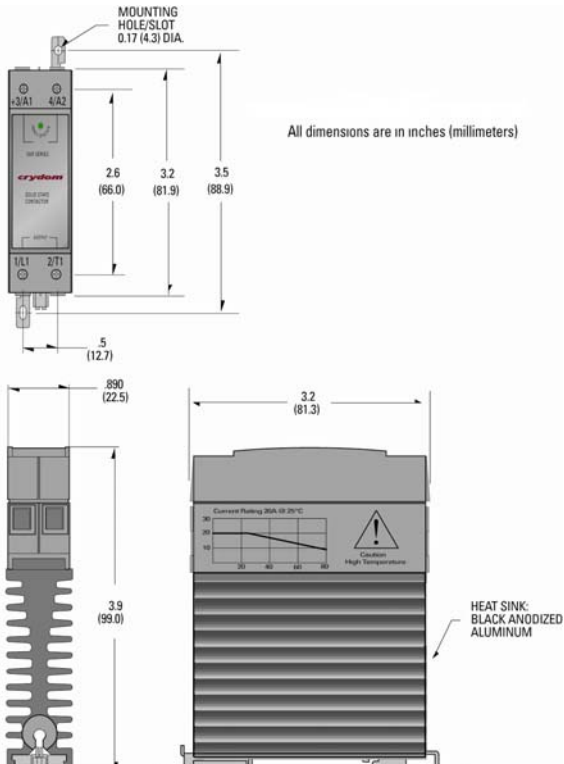
## WIRING DIAGRAM





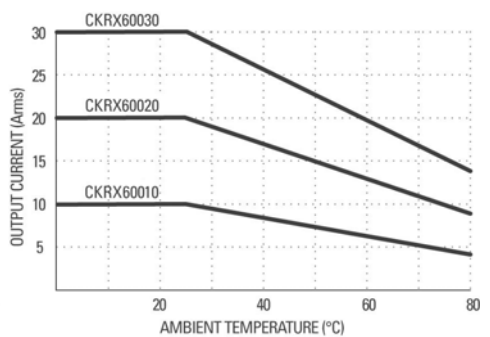
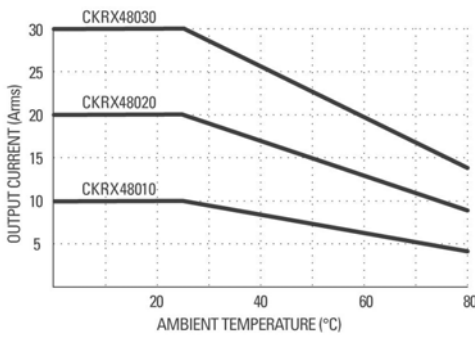
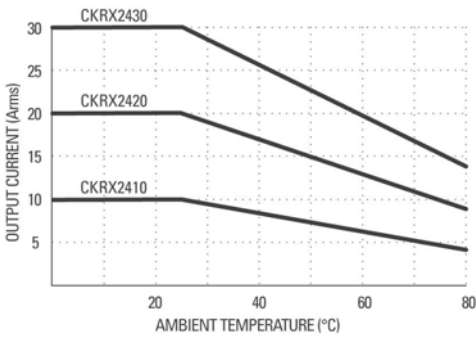
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## MECHANICAL SPECIFICATIONS



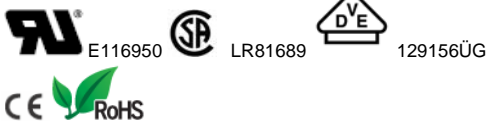
## THERMAL DERATE INFORMATION

### CURRENT DERATING CURVES



## AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314



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