



## CKR60 | SERIES

DIN RAIL MOUNT



### Features

- Rating from 10 A to 30 A @ 660 VAC
- Slim 22.5mm (width) package
- SCR output for heavy industrial loads
- LED input status indicator
- AC or DC control
- Zero Voltage (resistive loads) or Instantaneous (inductive loads) turn-on output



### PRODUCT SELECTION

Control Voltage	10 A	20 A	30 A
4-32 VDC Control	CKRD6010	CKRD6020	CKRD6030
110-280 VAC Control	CKRA6010	CKRA6020	CKRA6030
90-140 VAC Control	CKRB6010	CKRB6020	CKRB6030
18-36 VAC Control	CKRA6010E	CKRA6020E	CKRA6030E



### OUTPUT SPECIFICATIONS <sup>1</sup>

Description	10 A	20 A	30 A
Operating Voltage (47-63Hz) [Vrms]	48-660	48-660	48-660
Transient Overvoltage [Vpk]	1200	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA <sub>rms</sub> ]	1.0	1.0	1.0
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] <sup>2</sup>	500	500	500
Maximum Load Current [A <sub>rms</sub> ]	10	20	30
Minimum Load Current [A <sub>rms</sub> ]	0.15	0.15	0.15
Maximum Surge Current (16.6ms) [A <sub>pk</sub> ]	120	250	1200
Maximum On-State Voltage Drop @ Rated Current [V <sub>pk</sub> ]	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



# INPUT SPECIFICATIONS <sup>1</sup>

Description	CKRD60xx	CKRA60xx	CKRB60xx	CKRA60xxE
Control Voltage Range	4.0-32 VDC	110-280 Vrms	90-140 Vrms	18-36 Vrms
Minimum Turn-On Voltage	4.0 VDC	110 Vrms	90 Vrms	18 Vrms
Must Turn-Off Voltage	1.0 VDC	10 Vrms	10 Vrms	4.0 Vrms
Typical Input Current <sup>4</sup>	8-12 mA	5 mA @ 240 Vrms	5 mA @ 120 Vrms	10 mA @ 24 Vrms
Maximum Turn-On Time [msec] <sup>3</sup>	1/2 Cycle	10	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	40	40	40



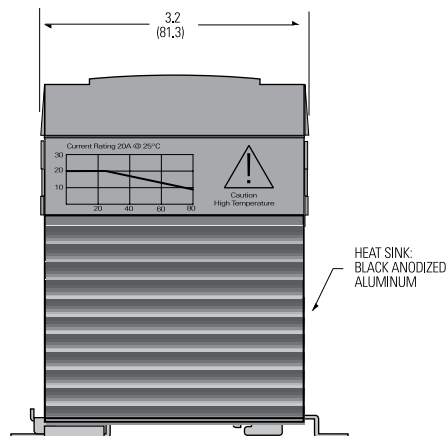
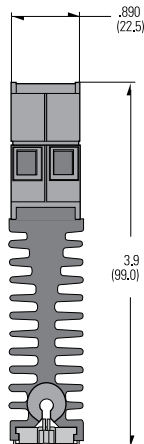
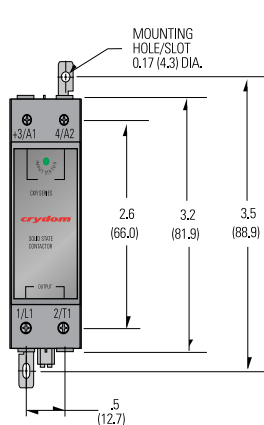
# GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 <sup>9</sup> Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 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)



# MECHANICAL SPECIFICATIONS

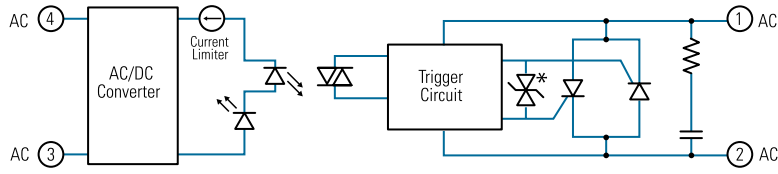
\*All dimensions are in: inches [millimeters]





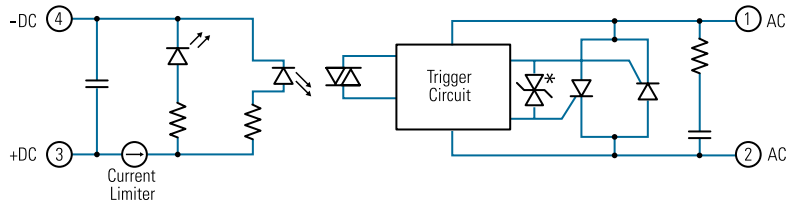
## EQUIVALENT CIRCUIT BLOCK DIAGRAMS

AC control

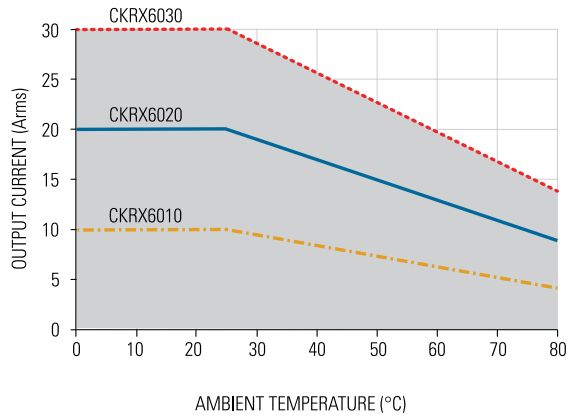


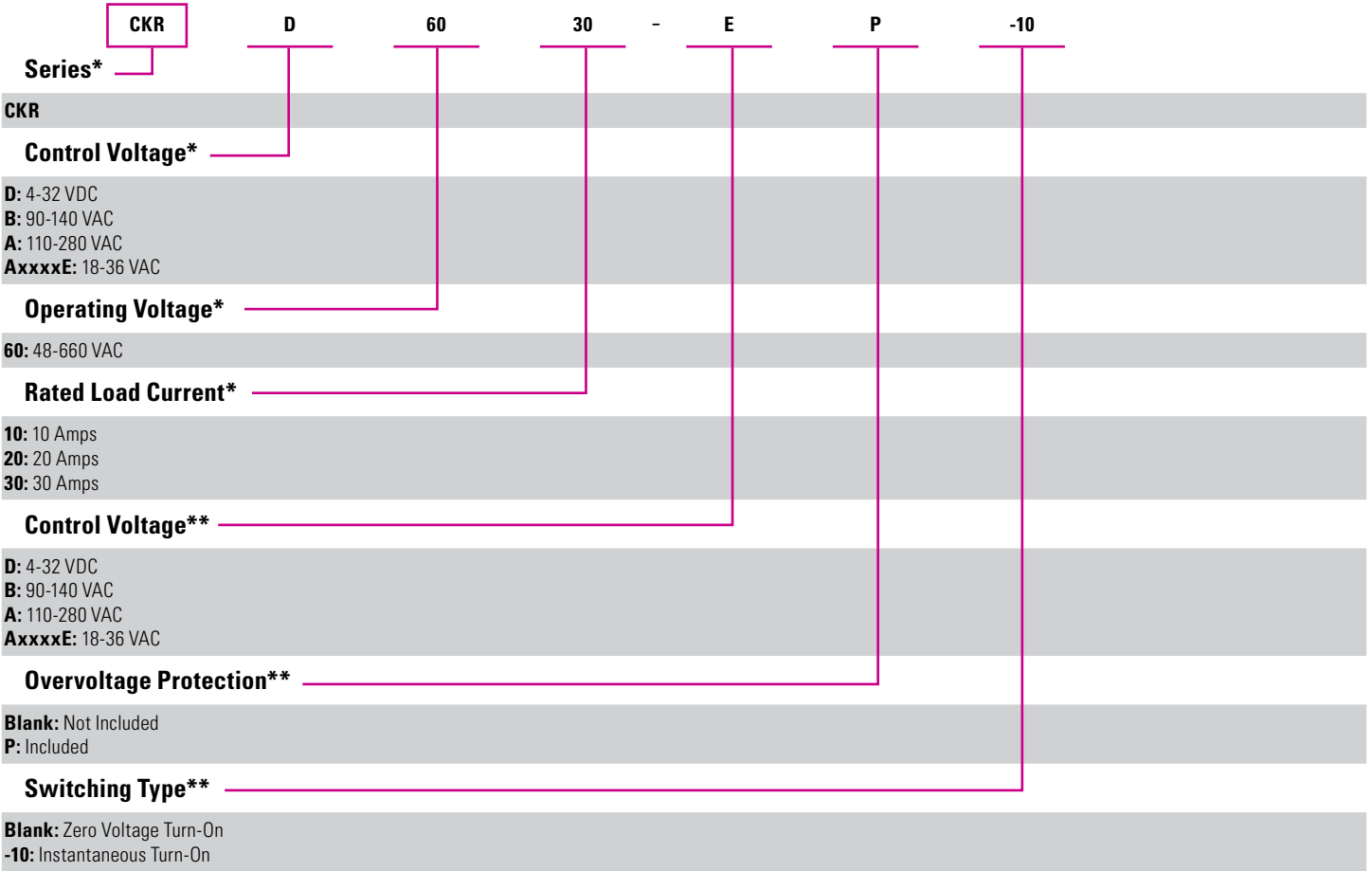
\* With Option "P" suffix

DC control



## THERMAL DERATE INFORMATION





\* Required for valid part number  
 \*\*For options only and not required for valid part number

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

## AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314



## WARNINGS



### RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

**Failure to follow these instructions can result in serious injury, or equipment damage.**



### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

**Failure to follow these instructions will result in death or serious injury.**

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