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 [1]

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 [mArms]	1.0	1.0	1.0
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) [Apk]	120	250	1200
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Maximum I^2t for Fusing (8.3 msec) [A^2 sec]	60	260	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

INPUT SPECIFICATIONS [1]

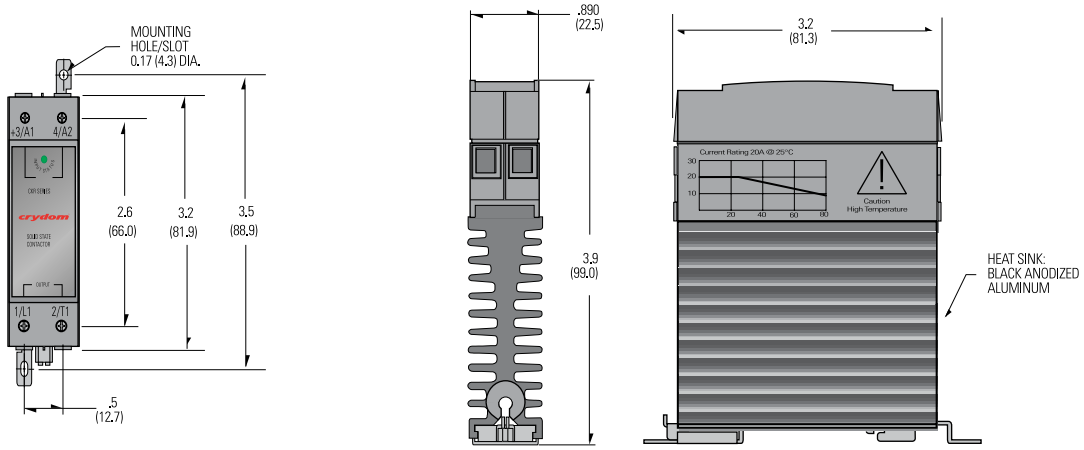
Description	CKRD60xx	CKRA60xx	CKRB60xx	CKRA60xxE
Control Voltage Range	4.0-32 VDC	110-280 Vrms	90-140 Vrms	18-36 Vrms
Minimum Turn-On Voltage	4.0 VDC	110 Vrms	90 Vrms	18 Vrms
Must Turn-Off Voltage	1.0 VDC	10 Vrms	10 Vrms	4.0 Vrms
Typical Input Current [4]	8-12 mA	5 mA @ 240 Vrms	5 mA @ 120 Vrms	10 mA @ 24 Vrms
Maximum Turn-On Time [msec] [3]	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)	10^9 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)

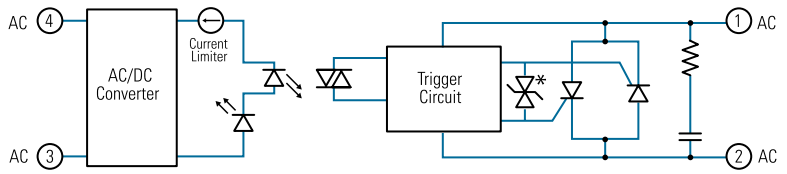
MECHANICAL SPECIFICATIONS

*All dimensions are in: inches [millimeters]



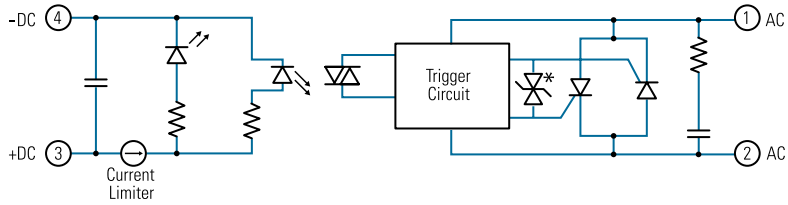
EQUIVALENT CIRCUIT BLOCK DIAGRAMS

AC control

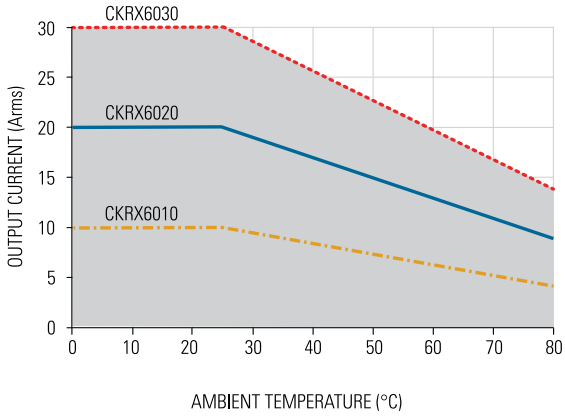


* With Option "P" suffix

DC control

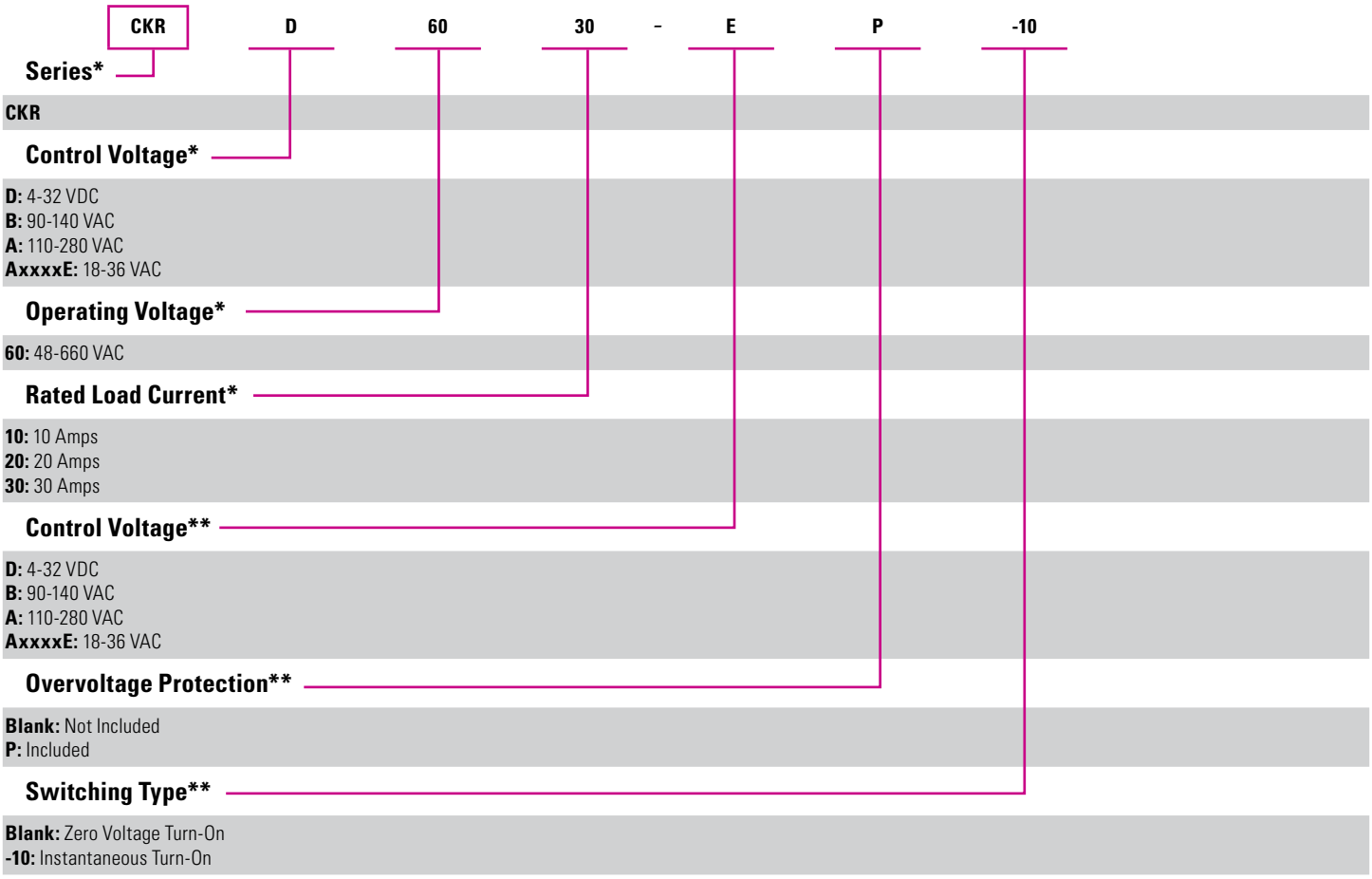


THERMAL DERATE INFORMATION



AVAILABLE OPTIONS

Example : CKRD6030-EP-10



* 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

E116950 LR81689 VDE 129156 CE RoHS 50

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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