



CKR SERIES | 240 VAC

DIN RAIL MOUNT SOLID STATE RELAYS



Features

- Rating from 10 A to 30 A @ 280 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	CKRD2410	CKRD2420	CKRD2430
110-280 VAC Control		CKRA2420	CKRA2430P
18-36 VAC Control			CKRA2430E

SPECIFICATIONS

Output ⁽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 _{rs}]	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽²⁾	500	500	500
Maximum Load Current [A _{rs}]	10	20	30
Minimum Load Current [A _{rs}]	0.15	0.15	0.15
Maximum Surge Current (16.6ms) [A _{pk}]	120	250	1200
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6
Maximum I ² t for Fusing (8.3 msec) [A ² sec]	60	260	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

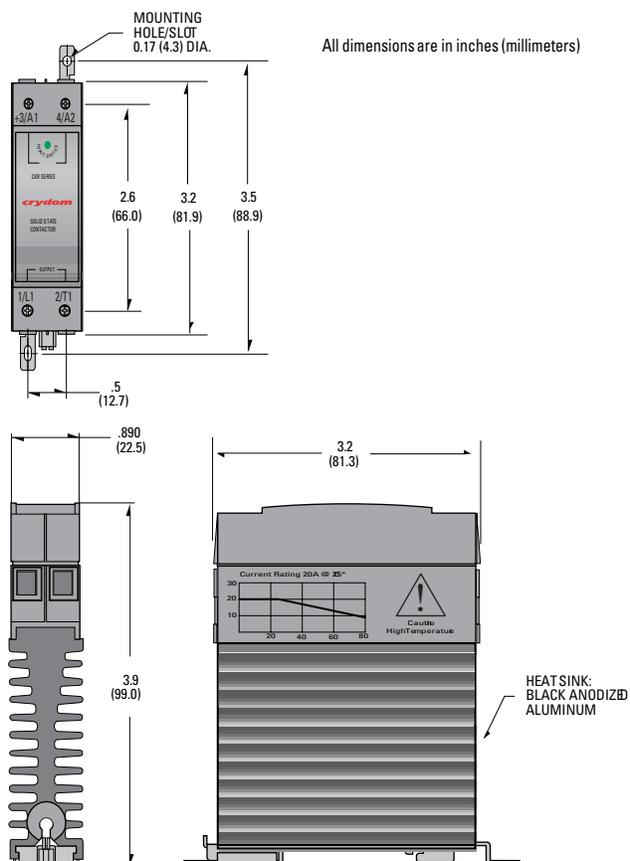
Input ⁽¹⁾

Description	CKRD24xx	CKRA24xx	CKRA24xxE
Control Voltage Range	4.0-32 VDC	110-280 Vrms	18-36 Vrms
Minimum Turn-On Voltage	4.0 VDC	110 Vrms	18 Vrms
Must Turn-Off Voltage	1.0 VDC	10 Vrms	4.0 Vrms
Typical Input Current ⁽⁴⁾	8-12 mA	5 mA @ 240 Vrms	10 mA @ 24 Vrms
Maximum Turn-On Time [msec] ⁽³⁾	1/2 Cycle	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	40	40

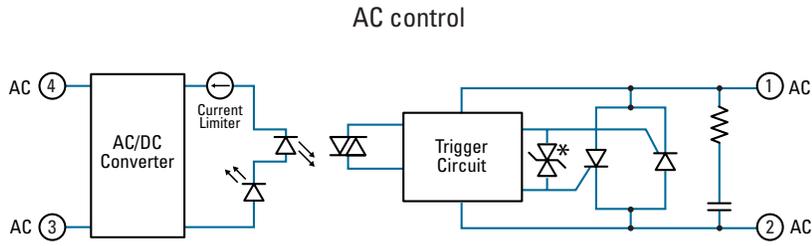
General

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ 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 lb-in (0.6-0.7 Nm)
Min. Side by Side Spacing	0.8 inch (20mm)

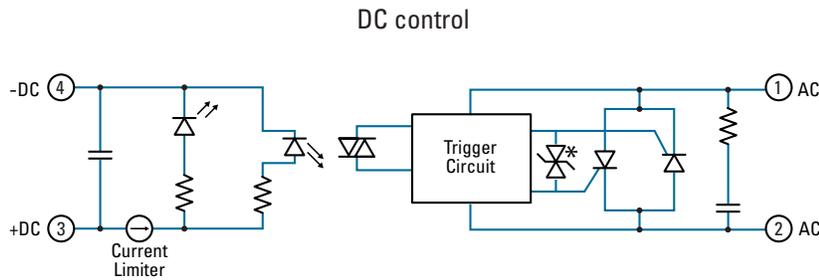
MECHANICAL SPECIFICATIONS



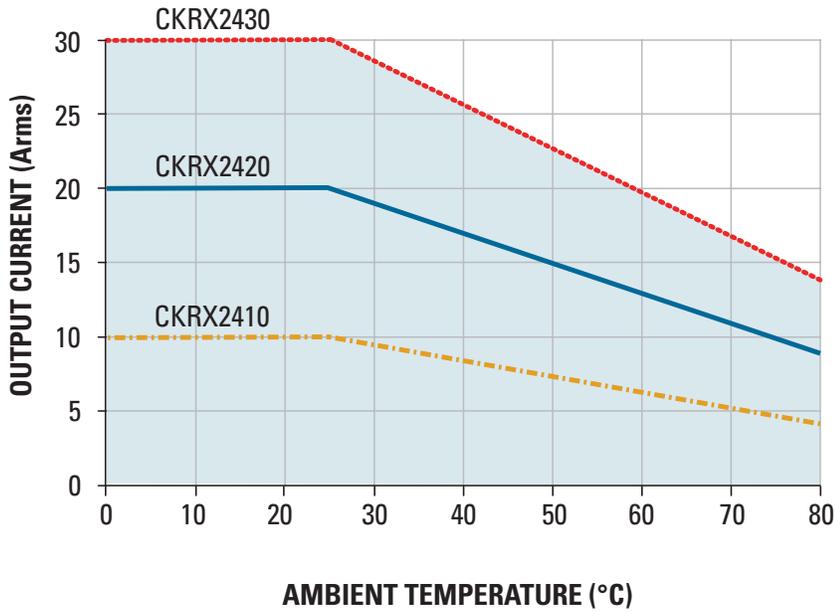
EQUIVALENT CIRCUIT BLOCK DIAGRAM



* With Option "P" suffix

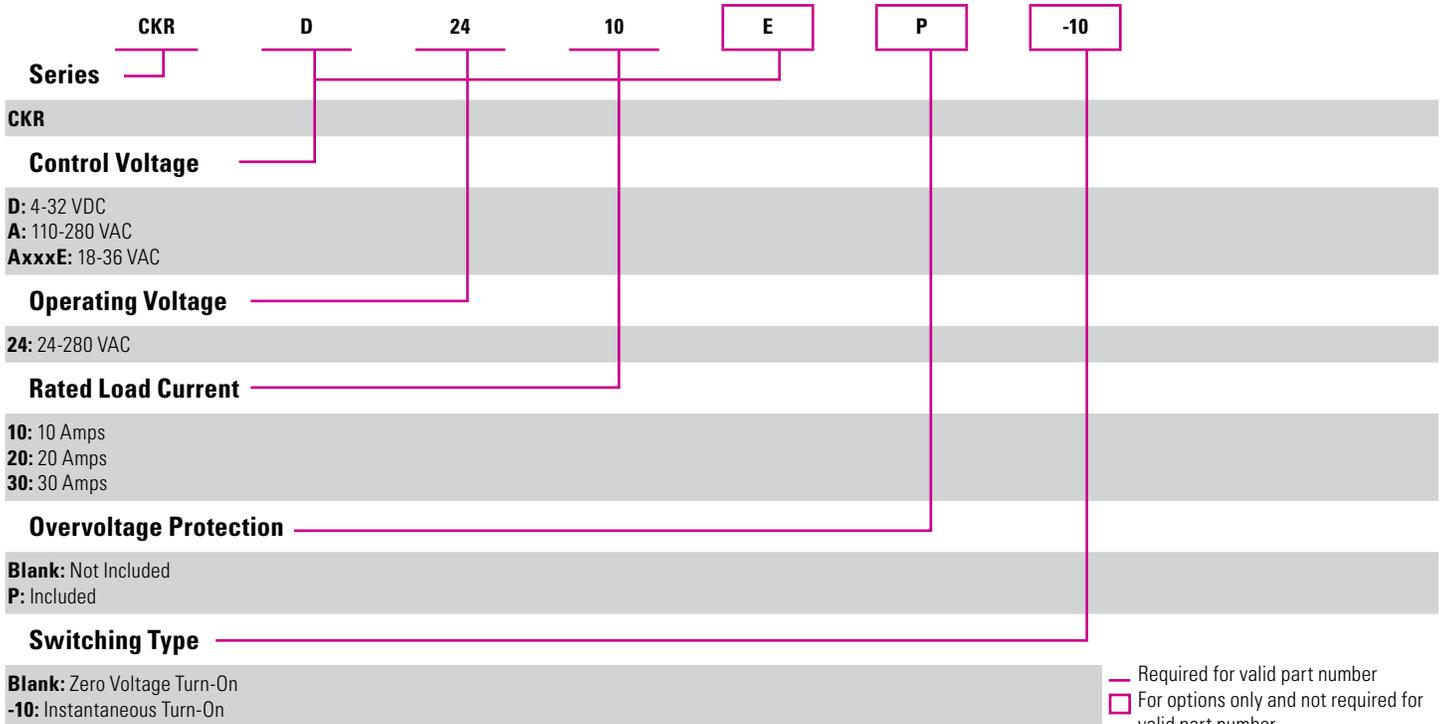


THERMAL DERATE INFORMATION



ORDERING OPTIONS

Example : CKRD2410-10



NOTE: Not all combinations are available.
Contact us for information on the availability of a specific 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



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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