chanhvinh.com

Sensata Technologies

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 [mArms]	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) [Apk]	120	250	1200
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Maximum I2 t for Fusing (8.3 msec) [A2 sec]	60	260	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

Copyright © 2024 Sensata Technologies, Inc.

chanhvinh.com

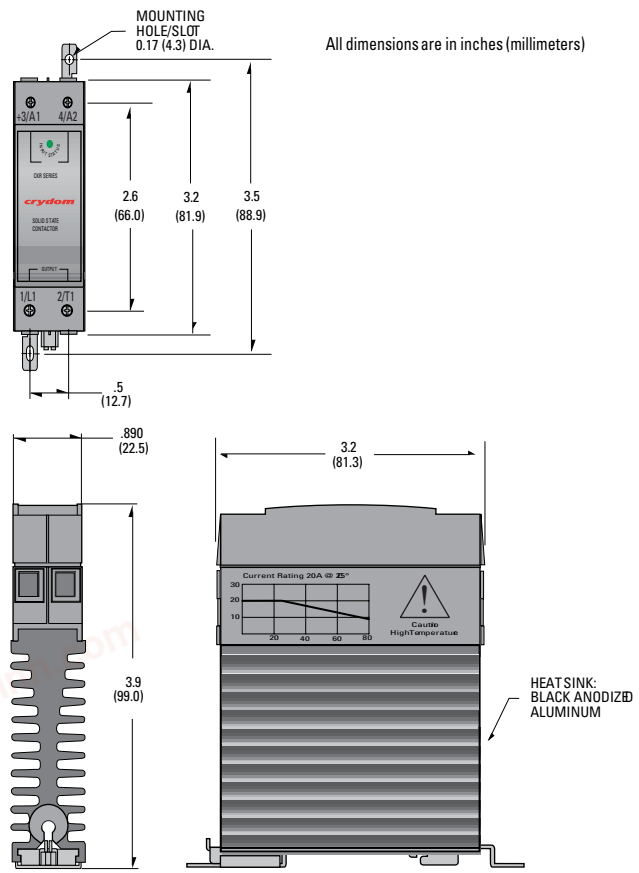
Input [1]

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

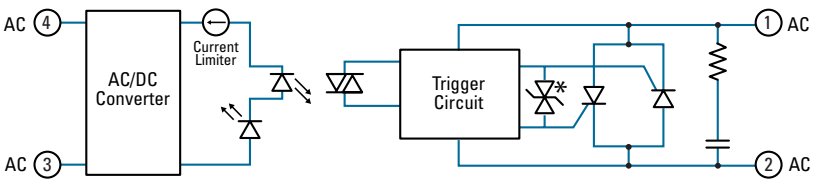


Copyright © 2024 Sensata Technologies, Inc.

chanhvinh.com

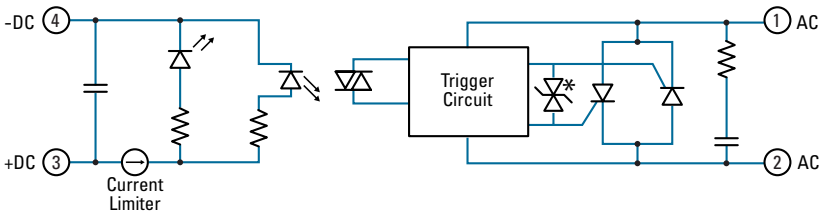
EQUIVALENT CIRCUIT BLOCK DIAGRAM

AC control

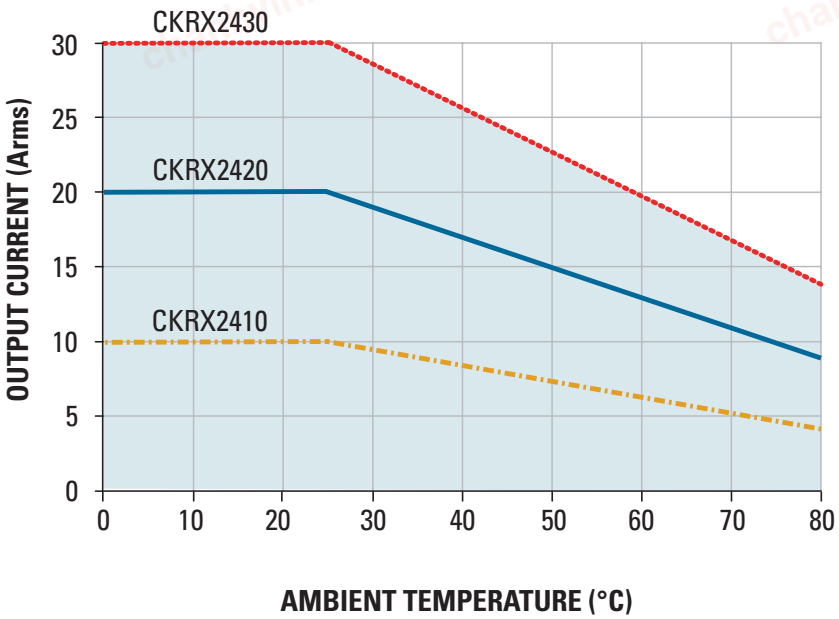


* With Option "P" suffix

DC control



THERMAL DERATE INFORMATION

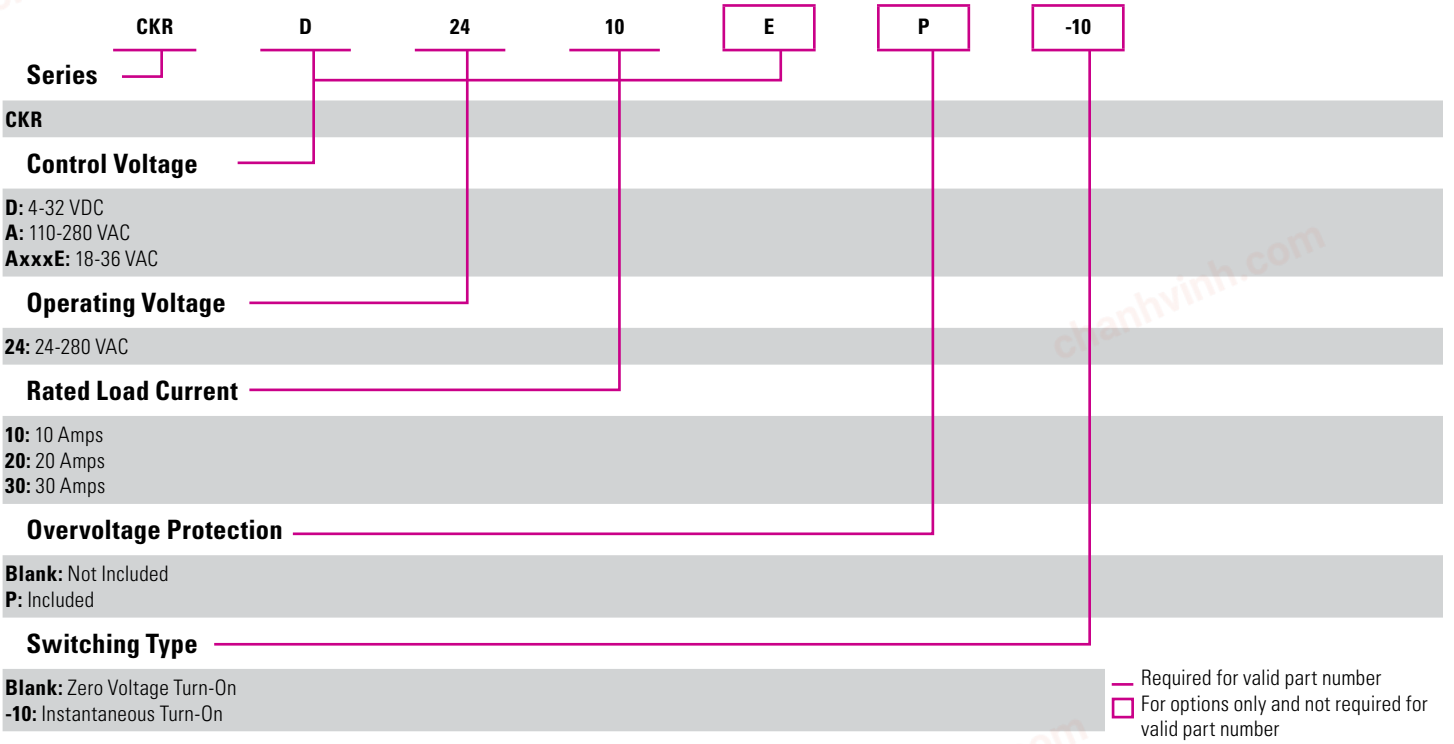


Copyright © 2024 Sensata Technologies, Inc.

chanhvinh.com

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

E116950 LR81689

Copyright © 2024 Sensata Technologies, Inc.

chanhvinh.com

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.

Datasheets provided by Sensata Technologies, Inc., its subsidiaries and/or affiliates ("Sensata") are solely intended to assist third parties ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata datasheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its datasheets or components without notice.
Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.
All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com. SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.
Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

Copyright © 2024 Sensata Technologies, Inc.

Rev:03/25/24

CONTACT US

Americas
+1 (877) 502 5500 – Option 2
sales.crydom@sensata.com
Europe, Middle East & Africa
+44 (1202) 416170
ssr-info.eu@sensata.com
Asia Pacific
sales.isasia@list.sensata.com-
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +886 (2) 27602006 ext 2808