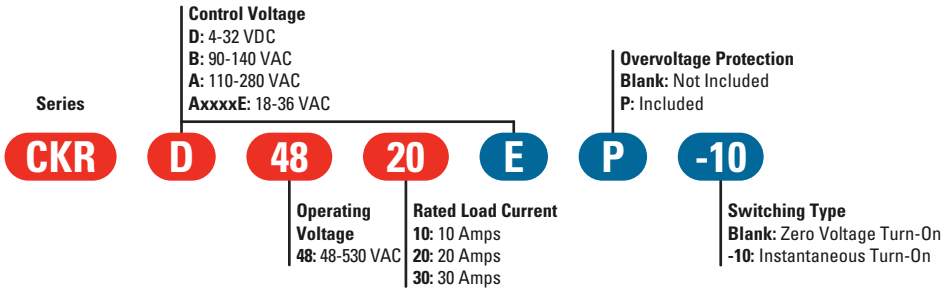
CKR48 Series

- Rating from 10A to 30A @ 530VAC
- Slim 22.5mm (width) package
- SCR output for heavy industrial loads
- LED input status indicator
- AC or DC control
- Zero-crossing (resistive loads) or Instantaneous-fire (inductive loads) output

PRODUCT SELECTION

Control Voltage	10A	20A	30A
4-32 VDC Control	CKRD4810	CKRD4820	CKRD4830
110-280 VAC Control	CKRA4810	CKRA4820	CKRA4830
90-140 VAC Control	CKRB4810	CKRB4820	CKRB4830
18-36 VAC Control	CKRA4810E	CKRA4820E	CKRA4830E

AVAILABLE OPTIONS



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

OUTPUT SPECIFICATIONS (1)

Description	10A	20A	30A
Operating Voltage (47-63Hz) [Vrms]	48-530	48-530	48-530
Transient Overvoltage [Vpk]	1200	1200	1200
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 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

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INPUT SPECIFICATIONS (1)

Description	CKRD48xx	CKRA48xx	CKRB48xx	CKRA48xxE
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
Minimum 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

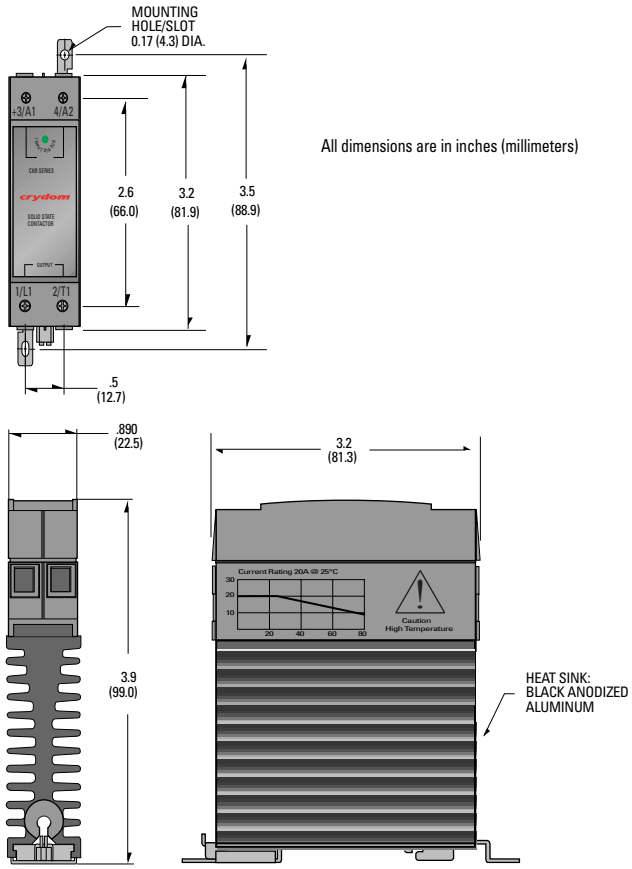
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000Vrms
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 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 instantaneous turn-on versions is 0.02 msec
4) Input circuitry for DC control version incorporates active current limiter.

MECHANICAL SPECIFICATIONS



All dimensions are in inches (millimeters)

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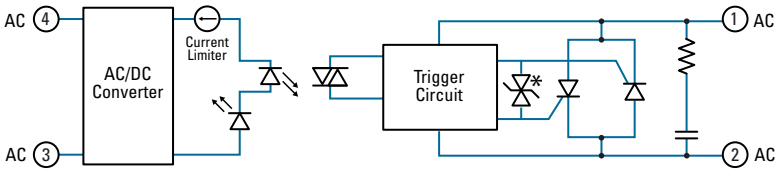
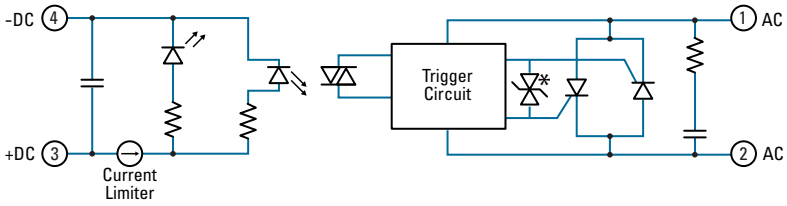
WIRING DIAGRAM

AC control

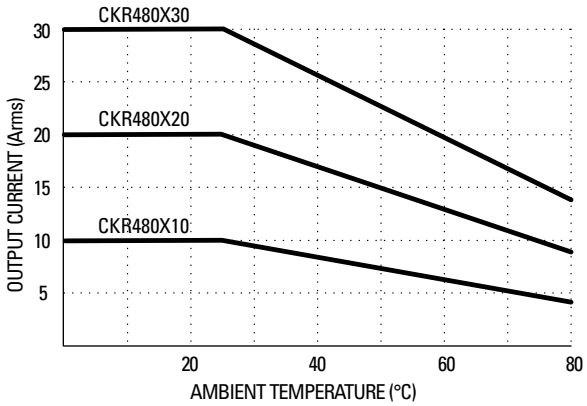


* With Option "P" suffix

DC control



THERMAL DERATE INFORMATION



AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314

c UL us E116949 CE RoHS

Rev. 121113

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⚠ DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / 危险

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.	RIESGO DE DESCARGA ELECTRICA O EXPLOSION.	RISQUE DE DESCHARGE ELECTRIQUE OU EXPLOSION	GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.	RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSI ONE.	存在电击、爆炸或电弧闪烁危险
• 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.**	• Desconectar todos los suministros de energia a este equipo antes de trabajar con este equipo. • Verificar todas las conexiones y colocar todas las tapas antes de energizer el equipo. **El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.**	• Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil • Vérifier tous connections, et remettre tous couverts en olace avant de mettre sous **De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.**	• Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen • Vor dem Drehen auf Energie alle Anschlüsse überprüfen und alle Abdeckungen ersetzen. **Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.**	• Spenga tutta l'alimentazion e che fornisce questa apparecchiatu ra prima del lavorare a questa apparecchiatu ra • Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazi one **L'omissione di seguire queste istruz ioni provocherà la morte o di lesioni serie**	• 在操作此设备之前请先关闭电源。 **若不遵守这些说明，可能会导致严重的人身伤害甚至死亡。**

⚠ WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / 警告

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE	RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER	GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG
• 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.**	• Les panneaux latéraux du produit peuvent être chauds. Laisser le produit refroidir avant de le toucher. • Respecter les consignes de montage, et notamment les couples de serrage. • Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit. **Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.**	• Die Seitenwände können heiß sein. Lassen Sie das Produkt abkühlen, bevor Sie es berühren. • Beachten Sie die Montageanweisungen, • Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein. **Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.**
RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD	**RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO**	**材料损坏和高温外壳的危险性**
• Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfríe antes de tocarlo. • Respetar las instrucciones de montaje, y en particular los pares de apretado. • No dejar que penetren líquidos o cuerpos extraños en el producto. **Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.**	• I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo. • Seguire le istruzioni di montaggio corrette. • Non far entrare liquidi o oggetti estranei in questo apparecchio. **La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.**	• 产品的一侧面板可能很热，在其冷却前请不要触碰。 • 遵照正确的安装说明，包括扭矩值。 • 请勿让液体及其他异物进入本产品。 **如不能正确执行这些操作说明，极有可能造成严重人体伤害或者设备的损坏。**

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ANNEX - ENVIROMENTAL INFORMATION

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

附件 - 环保信息

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 SJ/T11364 - 2006, 电子信息产品污染控制标识要求。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

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