

# Installatio DIN Rail Mount

## **CKR Series**

## High Power Ready-to-Use DIN Rail Mounted SSRs

Crydom CKR Series Solid State Relays were developed to offer the advantages of semiconductor switching technology in a standard 22.5 mm industrial package. Quick and easy installation is coupled with low drive power requirements and efficient, reliable power SCR output. This compact new design offers up to 30 Arms in ambient temperatures of 25°C.

#### **FEATURES**

- Mounting clip incorporates tabs for screw mounting to panel
- Box Clamp terminals
- Bracket fits all standard 35 mm DIN rail profiles
- LED input status indicator

Required for valid part number

#### PART NUMBER NOMENCLATURE

Control Voltage D: 4-32 VDC B: 90-140 VAC A: 110-280 VAC AxxxxF: 18-36 VAC

Series

For options only and not required for valid part number

Operating

Voltage

60: 48-660 VAC

24: 24-280 VAC 20: 20 Amps

48: 48-530 VAC 30: 30 Amps

**Rated Load Current** 

10: 10 Amps

Blank: Not Included

Overvoltage Protection

P: Included

Switching Type Blank: Zero Voltage Turn-On -10: Instantaneous Turn-On

#### **MOUNTING INSTRUCTIONS**

Please read all installation instructions before using CKR Series SSRs.

Choose one of the two mounting options and follow the instructions below.

#### Mounting on DIN Rail

- Locate rail and align with non moveable end of CKR DIN clip.
- Using reasonable force, push CKR in the direction of the arrow shown in fig.1.
- For removal pull release tag in direction of arrow using blade of screwdriver and pull it away from DIN rail.

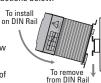


fig.1 Mounting on DIN Rail

#### **Mounting on Panel**

- Locate the panel section on which the CKR SSR will be mounted on.
- DIN clip includes tabs for this type of mounting. Tab holes have a diameter of 4.5 mm. You will need two screws (not included) no larger than that to mount the SSR onto panel.
- Align SSR tabs with panel surface and screw both top and bottom sides. Recommended torque is 12 in-lbs (1.36 Nm).



#### IMPORTANT CONSIDERATIONS

#### Mounting Air Gap (A)

To achieve maximum ratings, there must be a minimum spacing of 0.8 in (20 mm) between the devices (horizontally) and of 3.15 in (80 mm) measured between DIN clip tabs (vertically).

#### Earth Bonding (Grounding)

The CKR heat sink is equiped with an earth bonding screw as is required for Class 1 Protection, in accordance with EN 60950 (VDE 0804), Recommended torque is 20 in-lbs (2.2 Nm).

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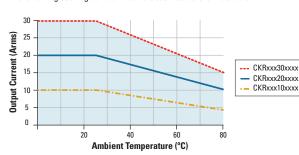




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### **DERATING CURVES** (B)

The following deating curves must be observed before installation.





#### WIRING DIAGRAM

#### Wire Size

Maximum wire size of AWG #10 (5.3 mm<sup>2</sup>) for input and output terminals.

#### Connections

Ensure that wires ends are stripped to a minimum length of 0.4 in (10 mm).

#### ■ Recommended Screw Torque Range

5-6 in-lbs (0.6-0.7 Nm) on input and output terminations.

- (A) The air gap is the clearance distance adjacent to either side of the relay or assembly measured to the next closer relay or assembly.
- (B) 100% Duty Cycle.

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

. Turn off power supply before working on this equipment.

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

#### RIESGO DE ELECTROCUCIÓN. EXPLOSIÓN O ARCO ELÉCTRICO

· Desconecte toda alimentación antes de realizar el servicio.

Si no se siguen estas instrucciones provocará lesiones graves o incluso la muerte.

#### ▲ DANGER / DANGER / GEFARH / PELIGRO / PERICOLO / 危险

RISQUE D'ELECTROCUTION. D'EXPLOSION OU D'ARC ELECTRIQUE

Coupez l'alimentation avant de travailler sur cet appareil.

Le non-respect de ces instructions provoquera la mort ou des blessures

#### RISCHIO DI SCOSSA ELETTRICA, DI ESPLOSIONE O DI OFTALMIA DA FLASH

- Scollegare l'apparecchio dalla presa di corrente prima di qualsiasi intervento.
- Il mancato rispetto di queste istruzioni provocherà morte o gravi infortuni.

#### STROMSCHLAG-, EXPLOSIONS- ODER LICHTBOGENGEFAHR

· Vor dem Arbeiten an dem Gerät dessen Stromversorgung abschalten.

Die Nichtbeachtung dieser Anweisungen führt zu Tod oder schwerer Körperverletzung.

存在电击、爆炸或电弧闪烁危险

•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 . 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.

#### RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- · 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.

#### RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER 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.

#### RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CAL DO

- 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.

#### GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG

- 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. 材料损坏和高温外壳的危险性

- 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。