

### CTR Series

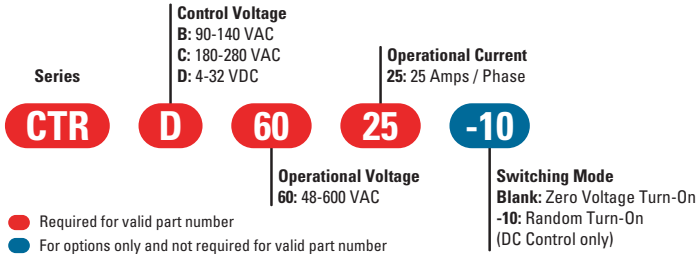
### DIN Rail Mountable SSRs Three-Phase

Crydom CTR Series Solid State Relays were developed to offer the advantages of semiconductor switching technology in a compact, self contained package. Quick and easy installation is coupled with low drive power requirements and efficient, reliable power SCR output.

#### FEATURES

- DIN rail or panel mount 90 mm (width) package
- Box Clamp terminals
- Bracket fits all standard 35 mm DIN rail profiles
- LED input status indicator

#### PART NUMBER NOMENCLATURE



- (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) CTRCxxxx is rated at 60°C max. ambient.
- (C) 100% Duty Cycle.

#### MOUNTING INSTRUCTIONS

Please read all installation instructions before using CTR 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 CTR DIN clip.
- ◆ Using reasonable force, push CTR 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.

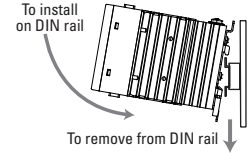
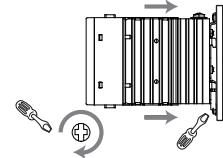


fig.1 Mounting on DIN Rail

##### Mounting on Panel

- ◆ Locate the panel section on which the CTR 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 if multiple units are installed, there must be a minimum air gap 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 CTR heat sink is equipped 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).

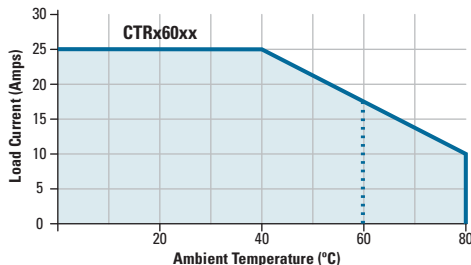
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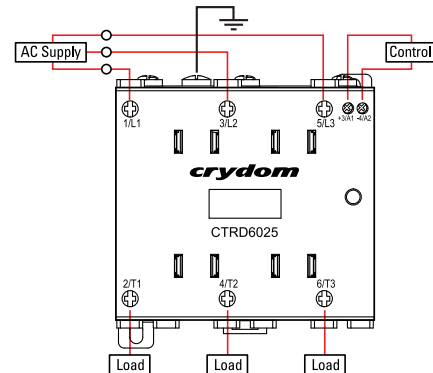
## DERATING CURVES (B, C)

The following derating curves must be observed before installation.



## WIRING DIAGRAM

- Wire Size**  
 Maximum wire size of AWG #16 (1.3 mm<sup>2</sup>) on input and AWG #8 (8.4 mm<sup>2</sup>) output terminals.
- Connections**  
 Ensure that wires ends are stripped to a minimum length of 0.4 in (10 mm).
- Recommended Screw Torque Range**  
 4.4 in-lbs (0.5 Nm) on input and 12 in-lbs (1.3 Nm) on output.



### ⚠ DANGER / DANGER / GEFARH / PELIGRO / PERICOLO / 危险

#### 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.

#### 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 graves.

#### STROMSCHLAG-, EXPLOSIONS- ODER LICHTBOGENGEFAHR

• Vor dem Arbeiten an dem Gerät dessen Stromversorgung abschalten.  
 Die Nichtbeachtung dieser Anweisungen führt zu Tod oder schwerer Körperverletzung.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO

• 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.

#### 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。

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

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。