

## CTR Series DIN rail mountable SSRs

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

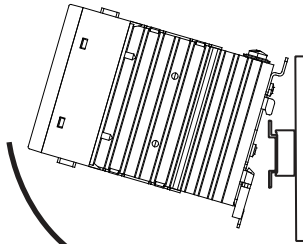
### MOUNTING INSTRUCTIONS

Please read all installation instructions before using CTR series SSRs.

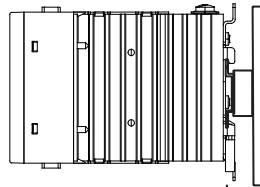
- Choose one of the two mounting options and follow the instructions below.

#### MOUNTING ON DIN RAIL

- ◆ Locate rail and align with non moveable end of CTR DIN clip.
- ◆ Using reasonable force, push the CTR SSR in the direction of the arrow shown.

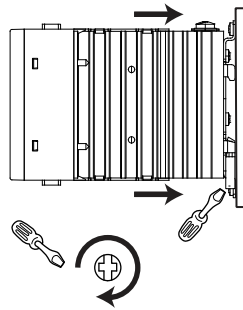


- ◆ For removal pull release tag in direction of arrow using blade of screwdriver and pull it away from DIN rail.



#### MOUNTING ON PANEL

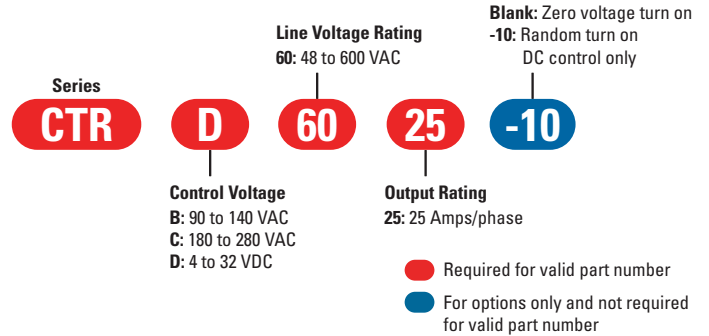
- ◆ Locate the panel section on which the CTR SSR will be mounted on.
- ◆ DIN clip includes tabs for this type of mounting. Tab holes have a diameter of 4.5 mm. You will need *two screws* (not included) no larger than that to mount the SSR onto panel.
- ◆ Align SSR tabs with panel surface and screw both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



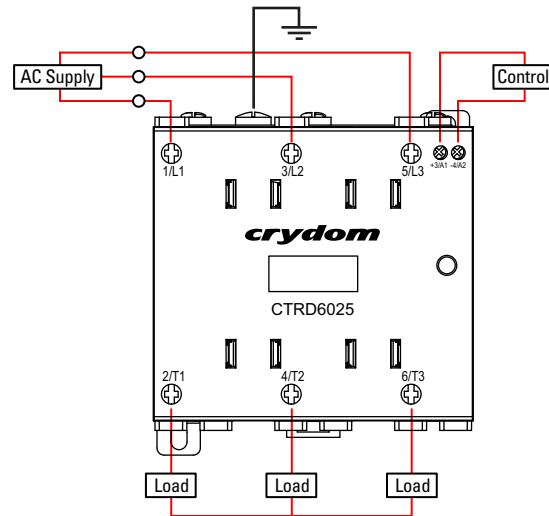
### IMPORTANT CONSIDERATIONS

- **Mounting air gap <sup>A</sup>**  
To achieve maximum ratings if multiple units are installed there must be a minimum air gap of 0.78 in (20 mm) between the devices (horizontally) and of 3.15 in (80 mm) measured between DIN clip tabs (vertically).
- **Over Current and Short Circuit**  
A solid state relay should be protected by a semiconductor fuse. This type of fuse provides extremely fast opening of the circuit. A fuse should be selected that has an I<sup>2</sup> t let-through rating that is less than the I<sup>2</sup> t capability of the SSR, for the same duration.
- **Earth Bonding (Grounding)**  
The CTR heatsink is equipped with an earth bonding screw as is required for Class 1 Protection, in accordance with EN 60950 (VDE 0804). Recommended torque is 12 in lb (1.36 Nm).

### PART NUMBER NOMENCLATURE



### WIRING DIAGRAM



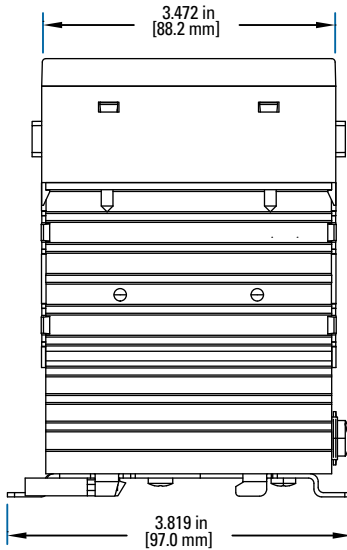
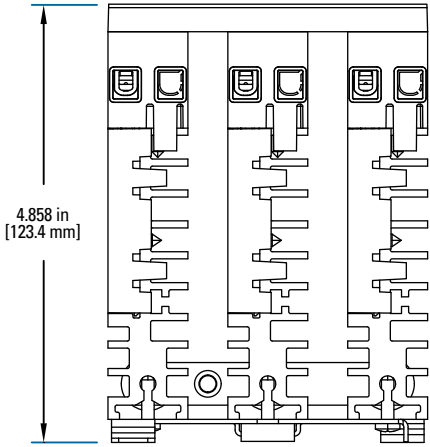
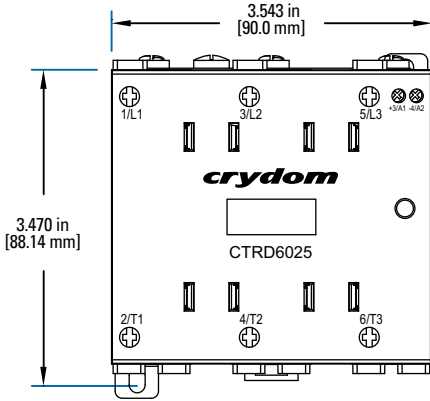
- **Wire Size**  
Maximum wire size of AWG#16 (1.29mm) on input and AWG#8 (3.26mm) on output terminals.
- **Connections**  
Ensure that wire ends for termination connections are stripped to a minimum length of 0.4 in (10 mm).
- **Recommended Screw Torque Range**  
5 in lb (0.6 Nm) on input and 15 in lb (1.7 Nm) on output.

<sup>A</sup> The air gap is the clearance distance adjacent to either side of the relay or assembly measured to the next closer relay or assembly.

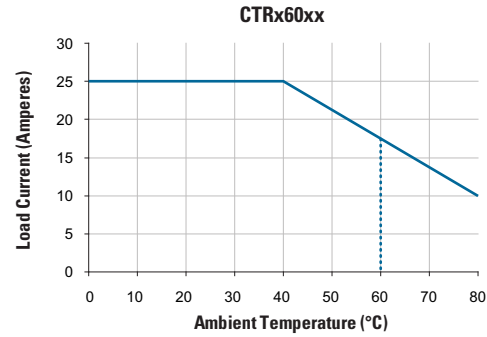
## MECHANICAL DIMENSIONS

Tolerances: ± 0.02 in / 0.5 mm

All dimensions are in: inches [millimeters]



## DERATING CURVE B, C



**B** CTRCXXXX is rated at 60°C max. ambient.  
**C** 100% Duty Cycle.

Rev: 032610

### ⚠ 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.

#### 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.

#### 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.

#### 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 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.

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身伤害或者设备的损坏。