

SOLICON DRC Series 3 Phase & Reversing Solid State Contactors

DIN Rail Mount

This installation sheet includes detailed mounting and wiring instructions which apply for Crydom SOLICON DRC 3 Phase and Reversing Solid State Contactors. Be sure to visit the product series' datasheet available at the Crydom website to complement this information. If you have questions or need additional information please contact Crydom Tech Support.

Please read all mounting instructions before using your SOLICON DRC Series Solid State Contactor.

MOUNTING INSTRUCTIONS (A,B)

- Install the contactor on the DIN rail (as shown in **fig.1**).
- Wire the contactor to the input side. AWG #18 (1 mm²) minimum, AWG #12 (4 mm²) x 2 maximum.
- Wire the contactor to the output side. AWG #18 (1 mm²) minimum, AWG #10 (6 mm²) x 2 (stranded/solid) maximum.
- Maximum recommended terminal screw torque input 12 lb-in (1.36 Nm) & output 15 lb-in (1.7 Nm).
- If multiple units are installed be sure to follow derating curves

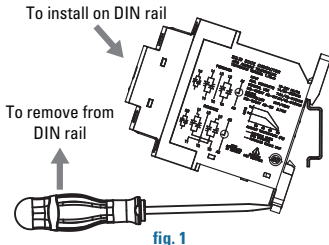


fig. 1

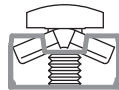


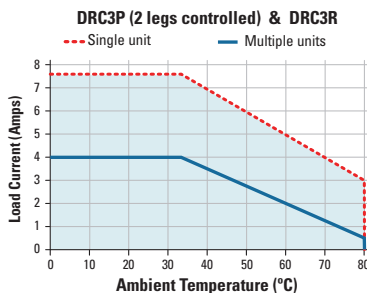
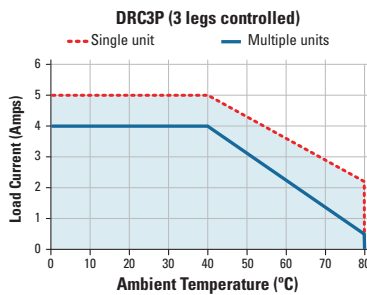
fig. 2 Terminal screw type. Top/Bottom view.

WARNING! Removing product from 35 mm rail incorrectly by not using the appropriate tool could damage the latching system

TABLE 1. HP Ratings at Nominal Voltage (C)

Ambient Temperature	DRC3P48x4x@480 VAC DRC3P60x4x@600 VAC	DRC3P48x4x2@480 VAC DRC3P60x4x2@600 VAC	DRC3R40x4x @ 400 VAC	DRC3R48x4x @ 480 VAC
40°C	3 HP / 2.2 kW	5 HP / 3.7 kW	3 HP / 2.2 kW	5 HP / 3.7 kW
60°C	2 HP / 1.5 kW	3 HP / 2.2 kW	2 HP / 1.5 kW	3 HP / 2.2 kW
80°C	1 HP / 0.75 kW	1.5 HP / 1.1 kW	3/4 HP / 0.55 kW	1 HP / 0.75 kW

DERATING CURVES (C)

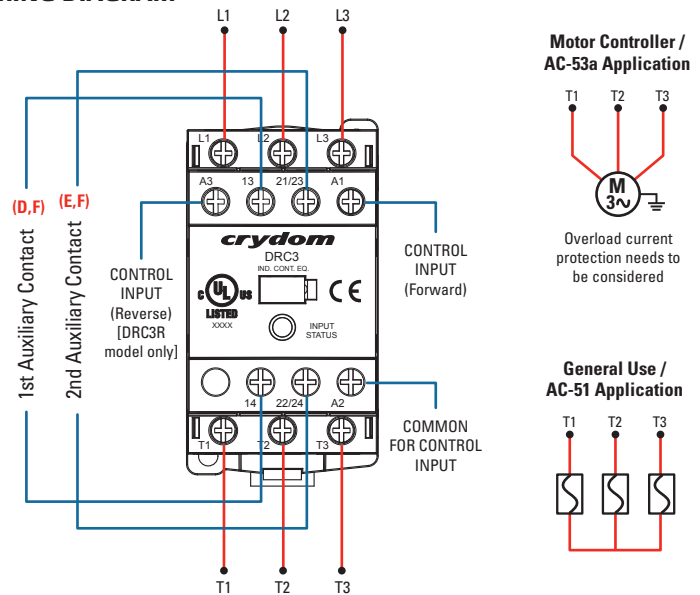


PART NUMBER NOMENCLATURE

Series	DRC	3P	48	D	4	00	R	2
	Function 3P: Contactor 3R: Reversing Contactor	Operating Voltage 40: 400 VAC (3R function only) 48: 480 VAC 60: 600 VAC (3P function only)	Load Current per Phase 4: 7.6 Amp FLA (x2 Controlled Legs & 3R function); 4.8 Amp FLA (x3 Controlled Legs only)	Control Voltage A: 208-265 VAC B: 90-140 VAC C: 36-55 VAC/DC (3P function only) D: 18-30 VAC/DC (3P function only) E: 18-30 VDC (3R function only)	Auxiliary Contacts 00: Not included 11: Solid State, 1 N.O. + 1 N.C. (3P function only) 20: Solid State, 2 N.O. 33: EMR, 1 N.O. + 1 N.C. (3P function, D option only) 40: EMR, 2 N.O. (3P function, D option and 3R function, E option only)	Switching Mode (3P function only) Blank: Zero Voltage Turn-On R: Instantaneous Turn-On	Controlled Legs (3P function only) Blank: 3 Controlled Legs 2: 2 Controlled Legs	

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

WIRING DIAGRAM



Important Considerations

Be sure to use input and output voltages within operating ranges.

LED indicates only input status. It does not represent output status.

To achieve maximum ratings, there must be a minimum spacing of 0.8 in (22 mm) between the devices in free air and a minimum free spacing of 3.15 in (80 mm) at the top and at the bottom. (See **fig. 3**)

General Notes

- (A) See compatible accessories in corresponding datasheet.
- (B) For optimal thermal performance, contactor vents should be aligned vertically to maximize natural convection airflow.
- (C) To achieve maximum ratings, there must be a minimum spacing of 0.8 in (22 mm) between the devices in free air and a minimum free spacing of 3.15 in (80 mm) at the top and at the bottom. (see **fig. 3**)
- (D) Normally Open (13 - 14) for DRC3xxxx411, DRC3xxxx420, DRC3xxxx433 and DRC3xxxx440 models.
- (E) Normally Open (23-24) for DRC3xxxx420 and DRC3xxxx440 models, Normally Closed (21-22) for DRC3xxxx411 and DRC3xxxx433 models.
- (F) Not available for DRC3xxxx400 models.

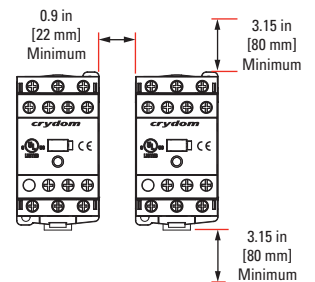


fig. 3 Multiple units mounting for maximum ratings

⚠ DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / 危險

<p>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.</p> <ul style="list-style-type: none"> Disconnect all power before installing or working with this equipment. Verify all connections and replace all covers before turning on power. <p>Failure to follow these instructions will result in death or serious injury.</p>	<p>RIESGO DE DESCARGA ELECTRICA O EXPLOSION.</p> <ul style="list-style-type: none"> 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 energizar el equipo. <p>El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.</p>	<p>RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION</p> <ul style="list-style-type: none"> 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 <p>De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.</p>	<p>GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.</p> <ul style="list-style-type: none"> 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. <p>Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.</p>	<p>RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.</p> <ul style="list-style-type: none"> Spenga tutta l'alimentazione che fornisce questa apparecchiatura prima di lavorare a questa apparecchiatura. Verificare tutti i collegamenti e sostituire tutte le coperture prima dell'accensione. <p>L'omissione di queste istruzioni provocherà la morte o lesioni serie.</p>	<p>存在电击、爆炸或电弧闪烁危险</p> <ul style="list-style-type: none"> 在操作此设备之前请先关闭电源。 <p>若不遵守这些说明，可能会导致严重的人身伤害甚至死亡。</p>
--	--	---	--	---	---

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

<p>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</p> <ul style="list-style-type: none"> 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. <p>Failure to follow these instructions can result in serious injury, or equipment damage.</p>	<p>RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER</p> <ul style="list-style-type: none"> 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. <p>Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.</p>	<p>GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG</p> <ul style="list-style-type: none"> 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. <p>Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.</p>
<p>RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD</p> <ul style="list-style-type: none"> 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. <p>Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.</p>	<p>RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO</p> <ul style="list-style-type: none"> 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. <p>La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.</p>	<p>材料损坏和高温外壳的危险性</p> <ul style="list-style-type: none"> 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。 <p>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。</p>