

## DRA1 CX Series



- 10mm Single Channel DIN Rail Mount SSR Assembly
- AC Ratings up to 380 VAC and 5 Amps
- 3-15 and 15-32VDC control
- Cage style screw terminals for easy connection
- Fits standard 35mm DIN rail
- Includes LED Status indicator

## PRODUCT SELECTION

| Description       | 5 A           | 5 A                | 5 A            | 5 A           | 5 A           |
|-------------------|---------------|--------------------|----------------|---------------|---------------|
| 3-15 VDC Control  | DRA1-CX240D5  | DRA1-CX240D5-B (2) | DRA1-CX240D5R  |               |               |
| 4-15 VDC Control  |               |                    |                | DRA1-CX380D5  | DRA1-CX380D5R |
| 15-32 VDC Control | DRA1-CXE240D5 |                    | DRA1-CXE240D5R | DRA1-CXE380D5 |               |

## OUTPUT SPECIFICATIONS (1)

| Description                                                                    | CX(E)240x5 | CX(E)380x5 |
|--------------------------------------------------------------------------------|------------|------------|
| Operating Voltage [VAC]                                                        | 12-280     | 48-380**   |
| Transient Overvoltage [Vpk]                                                    | 600        | 1200       |
| Maximum Load Current [Arms] (3)                                                | 5          | 5          |
| Minimum Load Current [Arms]                                                    | 0.06       | 0.06       |
| Maximum Off-State Leakage Current @ Rated Voltage [mArms]                      | 0.1        | 0.1        |
| Minimum off-state dv/dt @ maximum rated voltage [V/μsec] (4)                   | 500        | 500        |
| Maximum 1 Cycle Surge Current (50/60 Hz) [Apk]                                 | 239/250    | 239/250    |
| Maximum I <sup>2</sup> t for fusing (50/60 Hz, 1/2 cycle) [A <sup>2</sup> sec] | 285/260    | 285/260    |
| Maximum On-State Voltage Drop @ Rated Current [Vpk]                            | 1.4        | 1.4        |

## INPUT SPECIFICATIONS (1)

| Description                     | DRA1-CX   | DRA1-CX240D5-B (2) | DRA1-CX380D5 | DRA1-CXE  |
|---------------------------------|-----------|--------------------|--------------|-----------|
| Control Voltage Range           | 3-15 VDC  | 4-28 VDC           | 4-15 VDC     | 15-32 VDC |
| Must Turn On Voltage            | 3.0 VDC   | 1.0 VDC            | 4.0 VDC      | 15.0 VDC  |
| Must Turn Off Voltage           | 1.0 VDC   | 4.0 VDC            | 1.0 VDC      | 1.0 VDC   |
| Typical Input Current           | 15 mAdc   | 10 mAdc            | 15 mAdc      | 15 mAdc   |
| Nominal Input Impedance         | 300 Ohm   | 1360 Ohm           | 240 Ohm      | 1500 Ohm  |
| Maximum Turn-On Time [msec] (5) | 1/2 Cycle | 1/2 Cycle          | 1/2 Cycle    | 1/2 Cycle |
| Maximum Turn-Off Time [μsec]    | 1/2 Cycle | 1/2 Cycle          | 1/2 Cycle    | 1/2 Cycle |

## GENERAL SPECIFICATIONS

| Description                                      | Parameters                |
|--------------------------------------------------|---------------------------|
| Dielectric Strength, Input/Output/Base (50/60Hz) | 4000 VRMS                 |
| Minimum Insulation Resistance (@ 500 VDC)        | 10 <sup>9</sup> Ohms      |
| Maximum Capacitance, Input/Output                | 10 pF                     |
| Ambient Operating Temperature Range              | -30 to 80 °C              |
| Ambient Storage Temperature Range                | -30 to 125 °C             |
| Weight (typical)                                 | 0.063 lb (28.6g)          |
| Encapsulation                                    | Themally Conductive Epoxy |

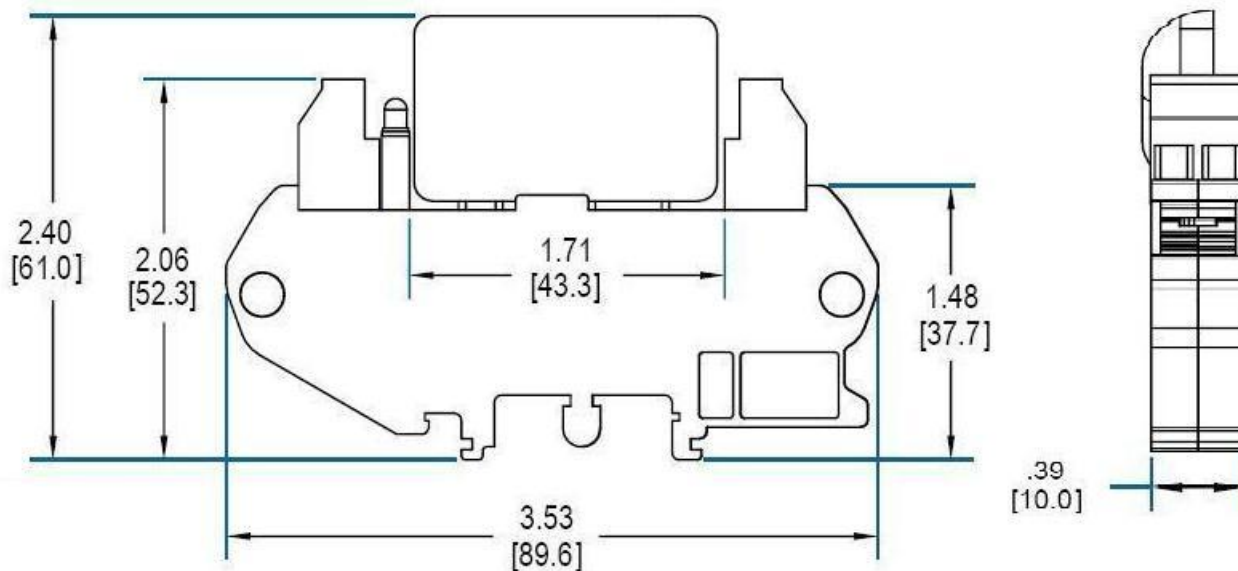
## GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) The output is normally closed and does not have a LED status indicator
- 3) See Derating chart on page 3.
- 4) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 5) Turn-on time for DC control random turn-on versions is 0.1 msec

**\*\*NOTE:** Voltages in excess of 380V will damage output terminals.

**MECHANICAL SPECIFICATIONS**

**CX/CMX Series SSR**

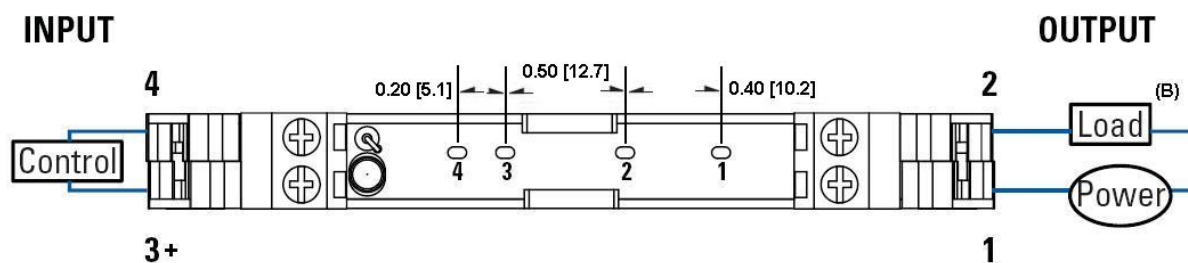


Tolerances:  $\pm 0.02$  in / 0.5 mm

All dimensions are in: inches [millimeters]

**WIRING DIAGRAM**

**Wiring Diagram<sup>(A)</sup>**

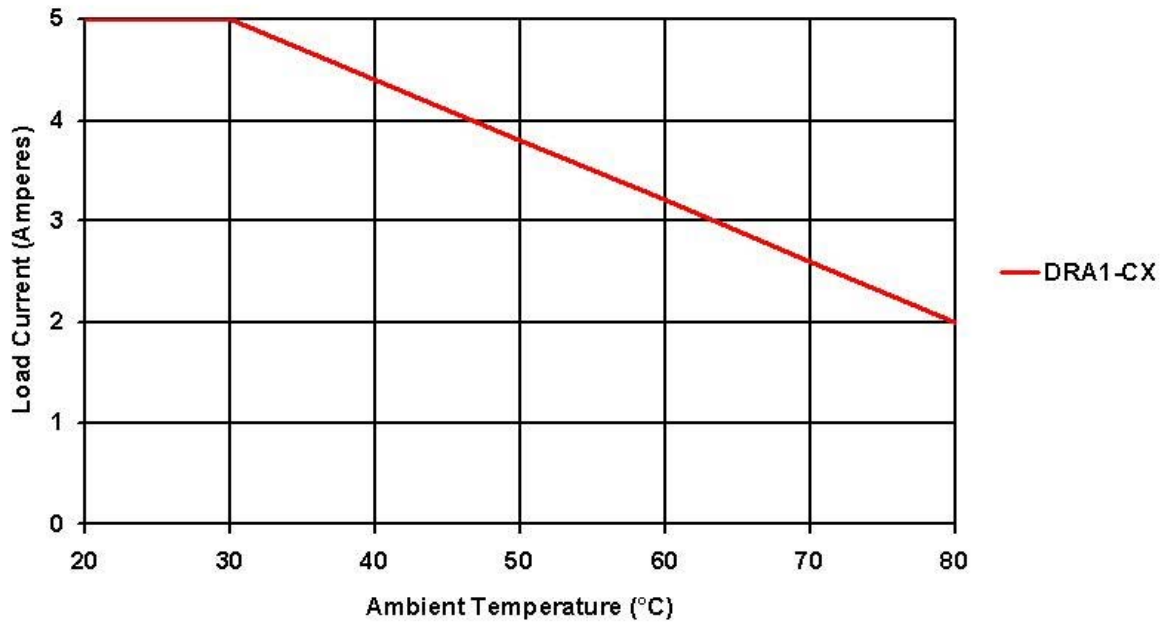


(A) Wiring diagram is identical for each individual section whether it is a single or four channel assembly.

(B) Load can be placed on either side of "Power".

**THERMAL DERATE INFORMATION**

**DRA1-CX Derating Curve**



**AGENCY APPROVALS**

Designed in accordance with the requirements of IEC 62314



E116950 (relay only)



LR81689 (relay only)



70938 UG (relay only)



Rev. 110811

|  <b>DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO</b>                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.</b> <ul style="list-style-type: none"> <li>Disconnect all power before installing or working with this equipment.</li> <li>Verify all connections and replace all covers before turning on power.</li> </ul> <p><b>Failure to follow these instructions will result in death or serious injury.</b></p> | <b>RIESGO DE DESCARGA ELECTRICA O EXPLOSION.</b> <ul style="list-style-type: none"> <li>Desconectar todos los suministros de energia a este equipo antes de trabajar con este equipo.</li> <li>Verificar todas las conexiones y colocar todas las tapas antes de energizar el equipo.</li> </ul> <p><b>El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.</b></p> | <b>RISQUE DE DESCARGE ELECTRIQUE OU EXPLOSION</b> <ul style="list-style-type: none"> <li>Eteindre toutes les sources d'énergie de cet appareil avant de travailler dessus de cet appareil</li> <li>Vérifier tous connections, et remettre tous couverts en place avant de mettre sous</li> </ul> <p><b>De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.</b></p> | <b>GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.</b> <ul style="list-style-type: none"> <li>Stellen Sie jeglichen Strom ab, der dieses Gerät versorgt, bevor Sie an dem Gerät Arbeiten durchführen</li> <li>Vor der Inbetriebnahme alle Anschlüsse überprüfen und alle Gehäuseteile montieren.</li> </ul> <p><b>Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.</b></p> | <b>RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE.</b> <ul style="list-style-type: none"> <li>Spenda tutta l'alimentazione e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura</li> <li>Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione</li> </ul> <p><b>L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie</b></p> | <b>RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO</b> <ul style="list-style-type: none"> <li>Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento</li> <li>Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento</li> </ul> <p><b>O não cumprimento destas instruções pode levar a morte ou lesões sérias.</b></p> |

|  <b>WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO</b>                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</b> <ul style="list-style-type: none"> <li>The product's side panels may be hot, allow the product to cool before touching.</li> <li>Follow proper mounting instructions including torque values.</li> <li>Do not allow liquids or foreign objects to enter this product.</li> </ul> <p><b>Failure to follow these instructions can result in serious injury, or equipment damage.</b></p>                                                                          | <b>RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER</b> <ul style="list-style-type: none"> <li>Les panneaux latéraux du produit peuvent être chauds. Laisser le produit refroidir avant de le toucher.</li> <li>Respecter les consignes de montage, et notamment les couples de serrage.</li> <li>Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit.</li> </ul> <p><b>Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.</b></p> | <b>GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG</b> <ul style="list-style-type: none"> <li>Die Seitenwände können heiß sein. Lassen Sie das Produkt abkühlen, bevor Sie es berühren.</li> <li>Beachten Sie die Montageanweisungen,</li> <li>Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein.</li> </ul> <p><b>Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.</b></p>                    |
| <b>RIESGO DE DAÑOS MATERIALES Y DE SOBRECIENTAMIENTO DE LA UNIDAD</b> <ul style="list-style-type: none"> <li>Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfríe antes de tocarlo.</li> <li>Respetar las instrucciones de montaje, y en particular los pares de apretado.</li> <li>No dejar que penetren líquidos o cuerpos extraños en el producto.</li> </ul> <p><b>Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.</b></p> | <b>RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO</b> <ul style="list-style-type: none"> <li>I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo.</li> <li>Seguire le istruzioni di montaggio corrette.</li> <li>Non far entrare liquidi o oggetti estranei in questo apparecchio.</li> </ul> <p><b>La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.</b></p>                           | <b>RISCO DE DANO MATERIAL E DE AQUECIMENTO</b> <ul style="list-style-type: none"> <li>Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar.</li> <li>Siga devidamente as instruções de montagem.</li> <li>Não permita a entrada de líquidos e de objectos estranhos no produto.</li> </ul> <p><b>A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.</b></p> |



## 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                                     |

此附件所标示的包括电子信息产品污染图标的环境信息  
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            |