

Evolution Dual Series

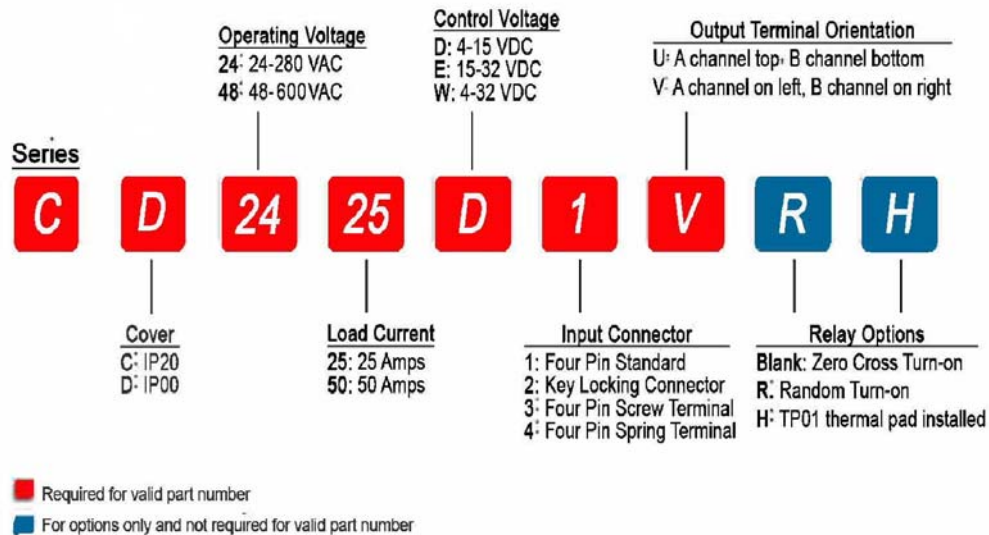


- 25A & 50A Output rating per channel @ 40°C
- 24 to 280 & 48 to 600VAC Operating voltage
- 4-15, 15-32 & 4-32VDC Control input options
- Four input termination options
- Zero-crossing (resistive loads) or random-fire (inductive loads) output
- Input status LED indicator for each channel
- Available with IP20 "Touch-Safe" Covers
- 100K cycle UL508 Endurance Rating

PRODUCT SELECTION

Control Voltage	240V, 25A	240V, 50A	480V, 25A	480V, 50A
4-15 VDC	CD2425D1U	CD2450D1U	CD4825D1U	CD4850D1U
15-32VDC	CD2425E1U	CD2450E1U	CD4825E1U	CD4850E1U
4-32 VDC	CD2425W1U	CD2450W1U	CD4825W1U	CD4850W1U

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (1)

Description	Cx2425xxxx	Cx2450xxxx	Cx4825xxxx	Cx4850xxxx
Operating Voltage (47-63Hz) [Vrms]	24-280	24-280	48-600	48-600
Load Current Range (3) [Arms]	0.15-25	0.15-50	0.15-25	0.15-50
Transient Overvoltage [Vpk]	600	600	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	1.0	1.0	1.0	1.0
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec] (2)	500	500	500	500
Maximum Surge Current 60Hz (16.6ms) [Apk]	300	750	300	750
Maximum Surge Current 50Hz (20ms) [Apk]	275	710	275	710
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.3	1.3	1.3	1.3
Thermal Resistance Junction to Case (Rjc) [°C/W]	0.65	0.33	0.65	0.33
Maximum I²t for Fusing (8.3 msec) [A² sec]	370	2320	370	2320
Maximum I²t for Fusing (10 msec) [A² sec]	380	2520	380	2520
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS (1)

Description	CxxxDxxx	CxxxExxx	CxxxWxxx
Control Voltage Range	4-15 VDC	15-32 VDC	4-32 VDC
Minimum Turn-On Voltage	4 VDC	15 VDC	4 VDC
Minimum Turn-Off Voltage	1.0 VDC	1.0 VDC	1.0 VDC
Typical Input Current	16 mA @ 5 VDC	18 mA @ 24 VDC	10 mA @ 12 VDC
Nominal Input Impedance	300 Ohm	1500 Ohm	See Note 5
Maximum Turn-On Time [msec] (4)	1/2 Cycle	1/2 Cycle	1/2 Cycle
Maximum Turn-Off Time [msec]	1/2 Cycle	1/2 Cycle	1/2 Cycle

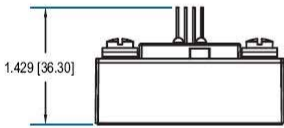
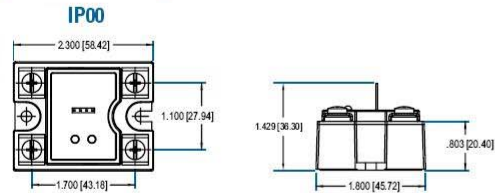
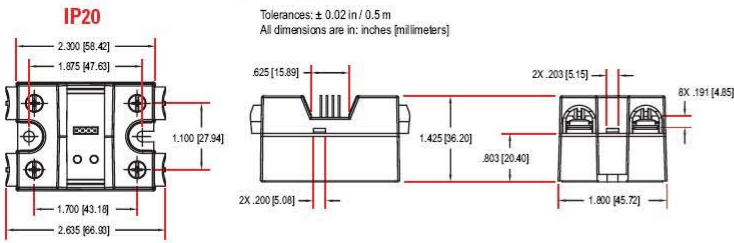
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output (50/60Hz)	4000 Vrms
Dielectric Strength, Input/Output/Base (50/60Hz)	2500 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5 g)
Terminals	Screw Type Output: 8-32
Max. Torque	Output: 20 in lb (2.2Nm)
Max. Wire Size	Output: 2 x AWG 8 (3.8mm)

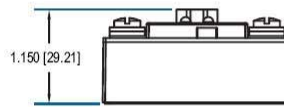
GENERAL NOTES

- 1) All parameters at 25°C and per section unless otherwise specified.
- 2) Off-state dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required, see derating curves.
- 4) Turn-on time for random turn-on (R) versions is 0.1 msec.
- 5) Input circuit incorporates active current limitation

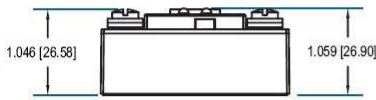
MECHANICAL SPECIFICATIONS



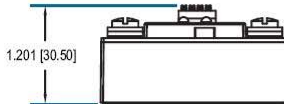
**INPUT CONNECTOR
OPTION 1**



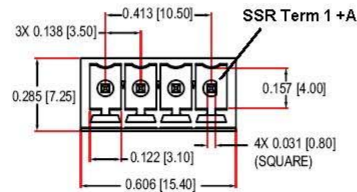
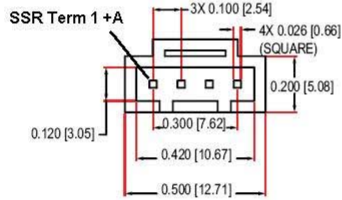
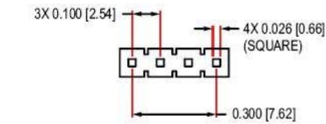
**INPUT CONNECTOR
OPTION 2**



**INPUT CONNECTOR
OPTION 3**



**INPUT CONNECTOR
OPTION 4**

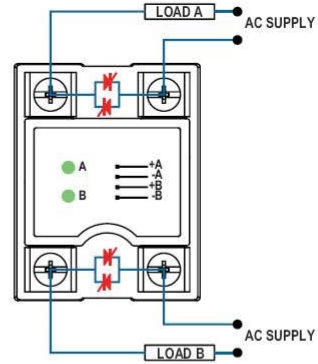


**SUGGESTED MATING
CONNECTORS/PLUGS**

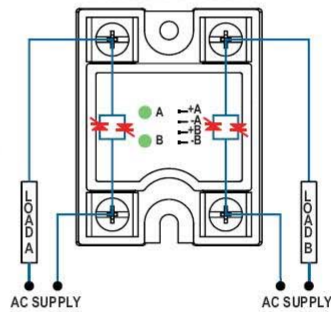
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|---|---|
| <p>OPTION 1
Pin Connector
TYCO 3-640440-4
Accepts wires: AWG #22</p> | <p>OPTION 2
Crimp Housing, Positive Latch
Molex 050579404
Accepts wires: AWG #24, 0.2 mm²</p> |
|---|---|

Wiring Diagrams

**SSR Output Configuration
"U" Option Top-Bottom
Line/Load Connections**



**Contactor Output Configuration
"V" Option Left-Right
Line/Load Connections**



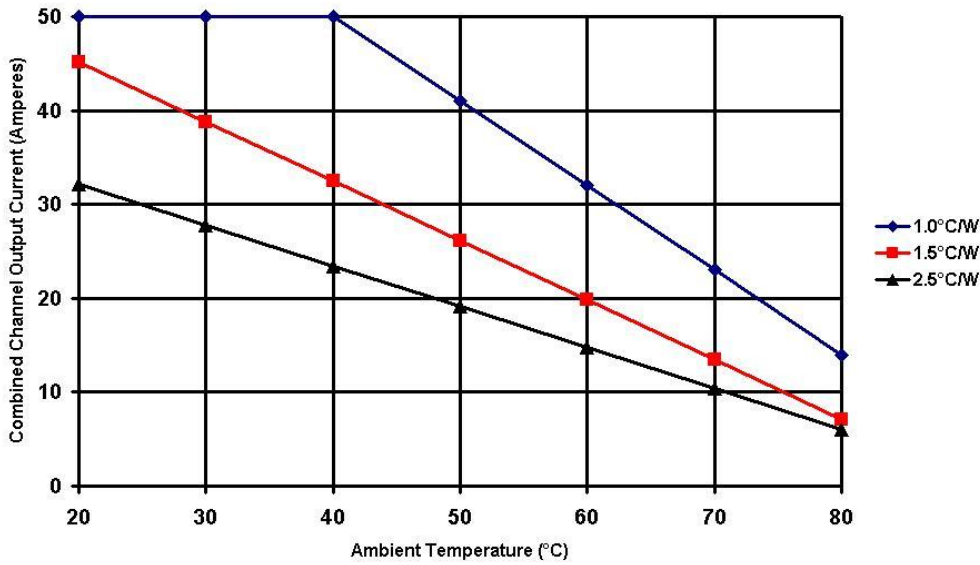
**SUGGESTED MATING
CONNECTORS/PLUGS**

OPTION 3

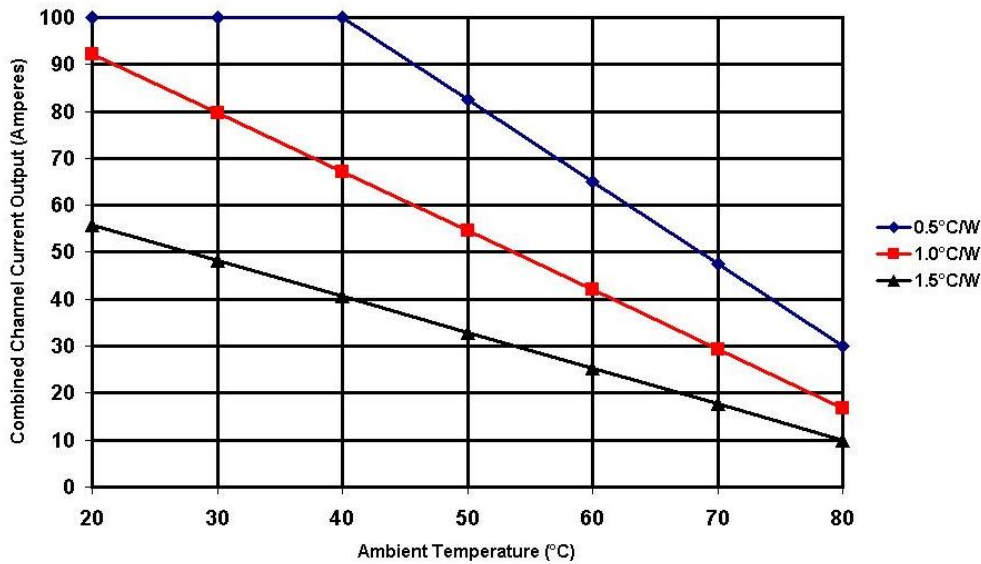
- | | |
|--|--|
| <p>Vertical Plug, Top Wire entry
Molex 039500-0004
Phoenix 1840382
Dinkle EC350V-04P</p> | <p>Vertical Plug, Front Wire entry
Molex 39503-3004
Phoenix 1863178
Dinkle EC350R-04P</p> |
| <p>Vertical Plug, Rear Wire entry
Molex 39503-2004
Phoenix 1862878
Dinkle EC350RL-04P</p> | <p>Vertical Spring Cage Plug, top Wire E
Phoenix 1939934
Dinkle 0221-2004
All 4 options accept wires: AWG #16 to 24</p> |

THERMAL DERATE INFORMATION

**DERATING CURVE:
25A Evolution Dual SSR**




**DERATE CURVE:
50A Evolution Dual SSR**



AGENCY APPROVALS



Rev. 092310

 DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO					
<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 der Inbetriebnahme alle Anschlüsse überprüfen und alle Gehäuseteile montieren. <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 e che fornisce questa apparecchiatura prima del lavorare a questa apparecchiatura • Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazione <p>L'omissione di seguire queste istruzioni provocherà la morte o di lesioni serie</p>	<p>RISCO DE DESCARGA ELÉTRICA OU EXPLOÇÃO</p> <ul style="list-style-type: none"> • Desconectar o equipamento de toda a energia antes de instalar ou trabalhar com este equipamento • Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento <p>O não cumprimento destas instruções pode levar à morte ou lesões sérias.</p>

 WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO		
<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. Laissez 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 SOBRECIENTAMIENTO 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>RISCO DE DANO MATERIAL E DE AQUECIMENTO</p> <ul style="list-style-type: none"> • Os painéis laterais do produto podem estar quentes; dê tempo ao produto para arrefecer antes de lhe tocar. • Siga devidamente as instruções de montagem. • Não permita a entrada de líquidos e de objectos estranhos no produto. <p>A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.</p>