SeriesOne DR Series

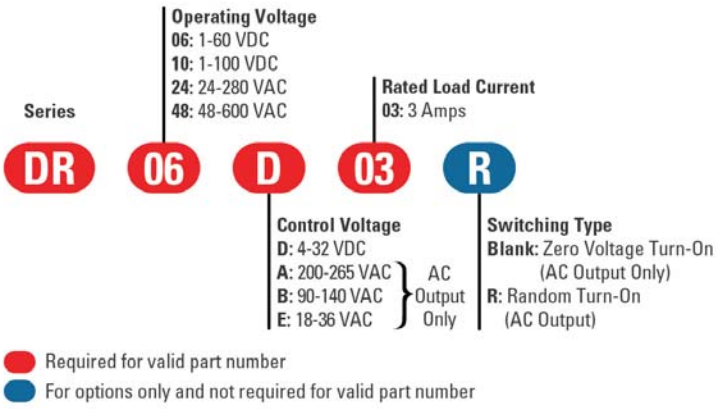


- Rating 3 Amps
- Load voltage ratings of 24-280VAC, 48-600VAC, 1-60VDC and 1-100VDC
- Fits standard 35mm DIN Rail
- LED input status indicator
- AC or DC control
- Zero-crossing (resistive loads) or random turn-on (inductive loads) output
- UL and cUL Listed, HP Rated, CE & RoHS Compliant
- UL 508 Endurance Rating for Enhanced Reliability

PRODUCT SELECTION

Description	280V, 3A	600V, 3A	60V, 3A	100V, 3A
4-32 VDC Control	DR24D03	DR48D03	DR06D03	DR10D03
90-140 VAC Control	DR24B03			
200-265 VAC Control	DR24A03			
18-36 VAC Control	DR24E03			

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (1)

Description	DR24x03	DR48x03	DR06D03	DR10D03
Operating Voltage (2)	24-280 Vrms	48-600 Vrms	1-60 VDC	1-100 VDC
Transient Overvoltage [Vpk]	600	1200	NA	NA
Maximum Load Current, resistive (2A)	3 Arms	3 Arms	3	3
Minimum Load Current	0.15	0.15 Arms	2.5 mA	2.5 mA
Maximum Off-State Leakage Current @ Rated Voltage [mA]	0.1	0.1	0.1	0.1
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec] (3)	500	500	NA	NA
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.3	1.3	0.6	0.6
Maximum Surge Current (50/60 Hz, 1 cycle) [Apk]	285/300	285/300	60	60
Maximum I^2t for Fusing (50/60 HZ, 1/2 cycle) [A^2 sec]	410/375	410/375	NA	NA
HP Rating UL 508/IEC60947[HP (KW)] @ 240V	1/4 (0.18)	1/4 (0.18)	NA	NA
HP Rating UL 508/IEC60947[HP (KW)] @ 380V	1/2 (.37)	1/3 (.25)	NA	NA
HP Rating UL 508/IEC60947[HP (KW)] @ 480V	1/2 (.37)	1/2 (.37)	NA	NA
Minimum Power Factor (with Maximum Load)	0.5	0.5	NA	NA
Min/Max stranded wire	22/14 AWG	22/14 AWG	22/14 AWG	22/14 AWG
Min/Max solid wire	22/14 AWG	22/14 AWG	22/14 AWG	22/14 AWG
Weight (typical)	1.76 oz. (50g)	1.76 oz. (50g)	1.76 oz. (50g)	1.76 oz. (50g)

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A brand of CST CUSTOM SENSORS & TECHNOLOGIES

INPUT SPECIFICATIONS (1)

Description	DRxxDxx	DRxxBxx	DRxxAxx	DRxxExx
Control Voltage Range (4)	4.0-32 VDC	90-140 Vrms	200-265 Vrms	18-36 Vrms
Minimum Turn-On Voltage	4.0 VDC	90 Vrms	200 Vrms	18 Vrms
Minimum Turn-Off Voltage	1.0 VDC	10 Vrms	90 Vrms	4 Vrms
Minimum Input Current [mA] (5)	9	3	2.5	3.5
Maximum Input Current [mA] (5)	11	5	3.3	8
Maximum Turn-On Time (6) (7)	1/2 Cycle	20 msec	20 msec	20 msec
Maximum Turn-Off Time (8)	1/2 Cycle	30 msec	30 msec	30 msec
Min/Max stranded/solid wire	22/16 AWG	22/16 AWG	22/16 AWG	22/16 AWG

GENERAL SPECIFICATIONS (1)

Description	Parameters
Dielectric Strength, Input to Output (50/60Hz)	4000Vrms (9)
Minimum Insulation Resistance (@ 500 V DC)	10^9 Ohms
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-30ºC to 80ºC
Ambient Storage Temperature Range	-30ºC to 100ºC
Recommended Terminal Screw Torque Range:	4.4-7.0 in lb (0.5-0.8 Nm)

GENERAL NOTES

1) All parameters at 25°C unless otherwise specified.
2) See Derating Curves
2A) For AC output frequency is 47-63Hz
3) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
4) DC control includes reverse polarity protection.
5) Input circuitry incorporates active current limiter.
6) Turn-on time for DC control random turn-on versions is 0.1 msec
7) Turn-on time for DC output 600µsec
8) Turn-off time for DC output 300µsec
9) 2500 Vrms for DC output

Standards of Compliance

IEC 62314
LC A, Resistive or Slightly Inductive Load Ratings: 3A @ 40°C ambient for DR24x03, 3A @ 40°C ambient for DR48x03

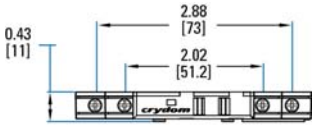
LC B, Motor Loads Ratings: 0.18KW @ 240VAC for DR24x03 and 0.375KW @ 480VAC DR48x03

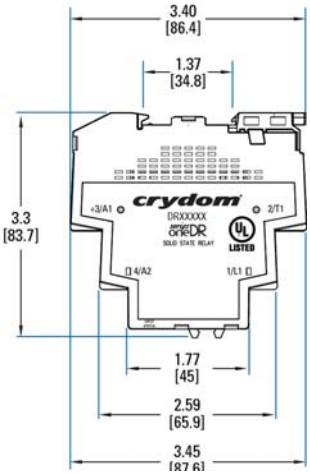
Shock and Vibration (Applies to all part numbers)
Vibration Resistance according to IEC 60068-2-6: **0.35mm and 0.75mm Amplitude over 10-55 Hz**
Shock Resistance according to IEC 60068-2-27: **15g/11ms**

EMC (Applies to all part numbers)
IEC 61000-4-2 : Electrostatic Discharge – Level 3
IEC 61000-4-4 : Electrically Fast Transients – Level 3
IEC 61000-4-5 : Electrical Surges – Level 3

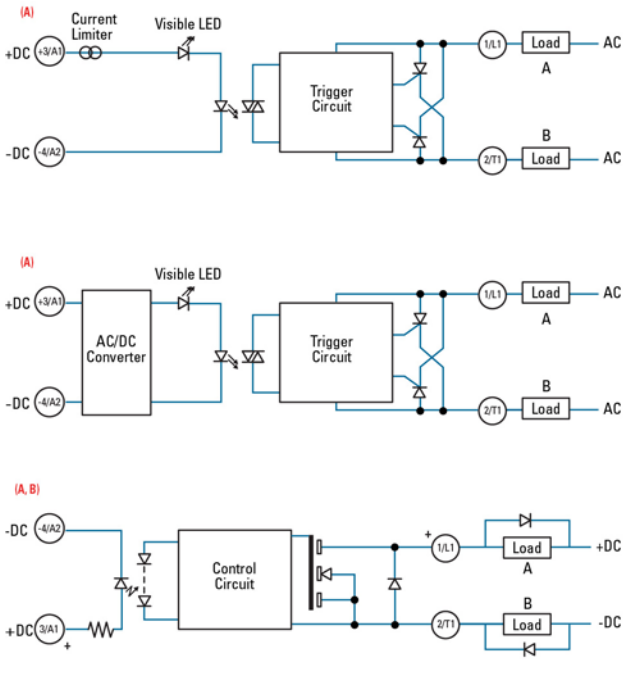
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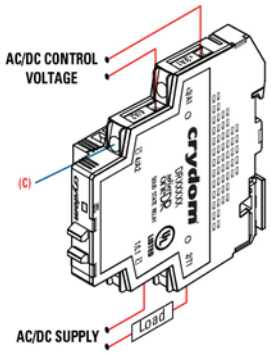
MECHANICAL SPECIFICATIONS





WIRING DIAGRAM



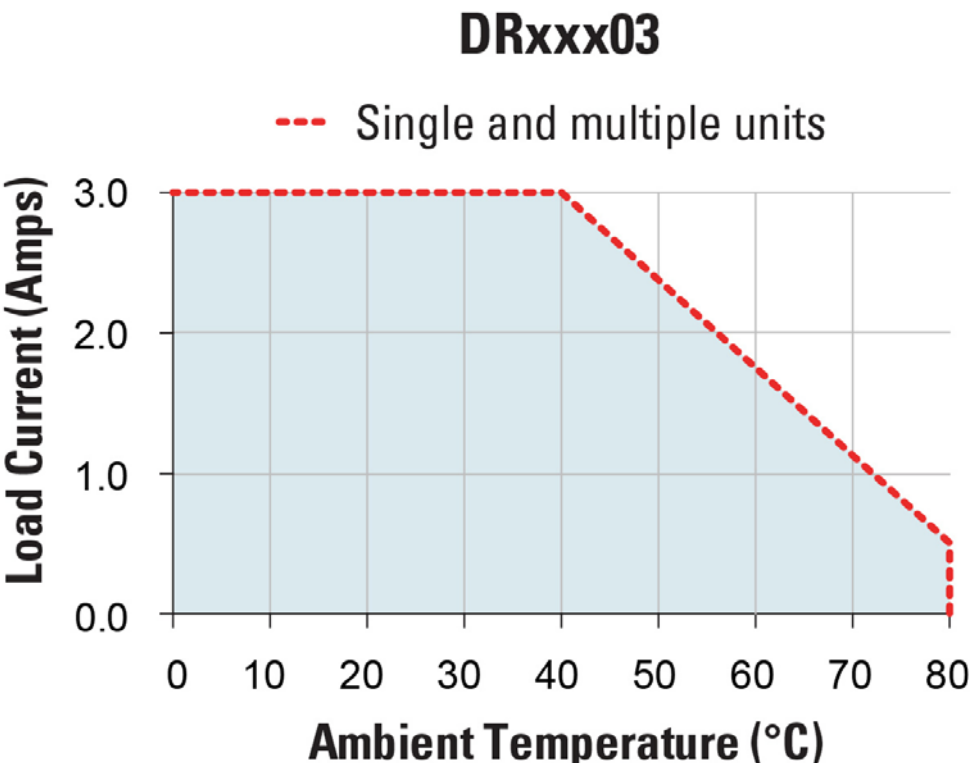


(C) 4 Terminal screws Pozidrive #1, 3/16 in (4.8 mm). Minimum wire insulation strip length 0.20 in (5.1 mm), maximum 0.28 in (7.1 mm).

(A) Load can be wired in position A or B
(B) Inductive loads must be diode supressed to prevent damage to SSR

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THERMAL DERATE INFORMATION



AGENCY APPROVALS

c UL us LISTED E116949

CE RoHS

Rev 030813

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ACCESSORIES

ID Marker Strips

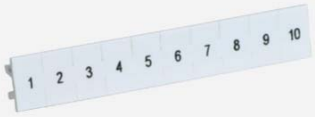
CNLB, CNLN, CNL2



Blank Strips

Part no.: CNLB

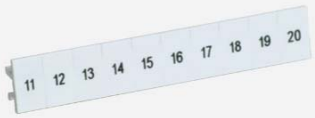
A package of 10 plastic strips comprising 10 individual unprinted markers which can be placed on sockets' terminal block for easy identification during the use of multiple units.



Numbered 1 to 10 Strips

Part no.: CNLN

A package of 10 plastic strips comprising 10 markers printed individually from 1 to 10 which can be placed on sockets' terminal block for easy identification during the use of multiple units.



Numbered 11 to 20 Strips

Part no.: CNL2

A package of 10 plastic strips comprising 10 markers printed individually from 11 to 20 which can be placed on sockets' terminal block for easy identification during the use of multiple units.

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⚠ DANGER / PELIGRO / DANGER /GEFAHR / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

- Disconnect all power before installing or working with this equipment.
- Verify all connections and replace all covers before turning on power.

Failure to follow these instructions will result in death or serious injury.

RIESGO DE DESCARGA ELECTRICA O EXPLOSION.

- 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 energizer el equipo.

El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.

RISQUE DE DESCHARGE ELECTRIQUE OU EXPLOSION

- 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

De non-suivi de ces instructions provoquera la mort ou des lésions sérieuses sérieuses.

GEFAHR EINES ELEKTRISCHE N SCHLAGES ODER EINER EXPLOSION.

- 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.

Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.

RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSI ONE.

- Spenga tutta l'alimentazion e che fornisce questa apparecchiatu ra prima del lavorare a questa apparecchiatu ra
- Verificare tutti i collegamenti e sostituire tutte le coperture prima della rotazione sull'alimentazi one

L'omissione di seguire queste istruz ioni provocherà la morte o di lesioni serie

RISCO DE DESCARGA ELÉTTRICA OU EXPLOSÃO

- Desconectar o equipamento de toda á energia antes de instalar ou trabalhar com este equipamen to
- Verificar todas as conexões e recolocar todas as tampas antes de religar o equipamento

O não cumprimento destas instruções pode levar á morte ou lesões sérias.

⚠ WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO

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.

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

RISCO DE DANO MATERIAL E DE AQUECIMENTO

- 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.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.

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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保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

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