

# SeriesOne DR Dual Series

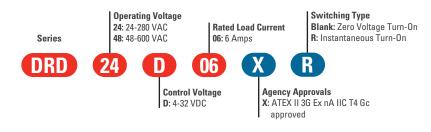


- Dual Output with Ratings of 6 Amps each channel
- Load voltage ratings of 24-280VAC and 48-600VAC
- Fits standard 35mm DIN Rail
- LED input status indicator
- DC control (4-32V)
- Zero Voltage (resistive loads) or Instantaneous (inductive loads) turn-on output
- UL and cUL Listed, HP Rated (General Purpose and Motor Control)
- CE & RoHs Compliant
- UL 508 Endurance Rating for Enhanced Reliability
- UL Class I and II, Division 2, for Hazardous Locations

#### **PRODUCT SELECTION**

Control Voltage	280V, 6A	600V, 6A
4-32 VDC	DRD24D06	DRD48D06

#### **AVAILABLE OPTIONS**



Required for valid part number

For options only and not required for valid part number

## OUTPUT SPECIFICATIONS AC Output (1)

Description	DRD24D06	DRD48D06
Operating Voltage (47-63Hz) [Vrms]	24-280	48-600
Transient Overvoltage [Vpk]	600	1200
Maximum Load Current per channel, resistive [mArms] (2)	6	6
Minimum Load Current [mArms]	150	150
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.1	0.25
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec] (3)	500	500
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.3	1.3
Maximum Surge Current (50/60Hz, 1 cycle) [Apk]	715/750	715/750
Maximum I²t for Fusing (50/60 Hz, 1/2 cycle) [A² sec]	2560/2330	2560/2330
HP Rating UL 508/IEC60947 [HP (KW)] @ 240V	1/2 (.37)	1/2 (.37)
HP Rating UL 508/IEC60947 [HP (KW)] @ 380V	N/A	1 (.75)
HP Rating UL 508/IEC60947 [HP (KW)] @ 480V	N/A	2 (1.5)
Minimum Power Factor (at Maximum Load)	0.5	0.5
Min/Max stranded wire	22/14 AWG	22/14 AWG
Min/Max solid wire	22/14 AWG	22/14 AWG

FDE-07-01 REV. A





#### **INPUT SPECIFICATIONS (1)**

Description	DRDxxD06	
Control Voltage Range [Vdc] (4)	4.0-32	
Minimum Turn-On Voltage [Vdc]	1.0	
Must Turn-Off Voltage [Vdc]	4.0	
Minimum Input Current for [mA] (5)	9	
Maximum Input Current for [mA] (5)	11	
Maximum Turn-on Time [msec] (6)	1/2 Cycle	
Maximum Turn-off Time [msec]	1/2 Cycle	
Min/Max stranded/solid wire	22/16 AWG	

## GENERAL SPECIFICATIONS<sup>(1)</sup>

Description	Parameters	
Dielectric Strength, Input/Output/Base (50/60Hz)	2500 Vrms	
Minimum Insulation Resistance (@ 500 VDC)	10 <sup>9</sup> Ohm	
Maximum Capacitance, Input/Output	10 pF	
Ambient Operating Temperature Range	-30 to 80 °C	
Ambient Storage Temperature Range	-30 to 100 °C	
Recommended Terminal Screw Torque Range	4.4-7.0 in-lb (0.5-0.8Nm)	
Weight (Typical)	3.17 oz (90g)	

#### **GENERAL NOTES**

(1) All parameters at 25°C unless otherwise specified.
 (2) See Derating curves

(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.

#### Standards of Compliance

#### IEC 62314

LC A, Resistive or Slightly Inductive Load Ratings: 6A per channel @ 40°C ambient for DRD24D06X, 6A per channel @ 40°C ambient for DRD48D06X

LC B, Motor Loads Ratings: 0.375KW @ 240VAC for DRD24x06X and 1.5KW @ 480VAC DRD48x06X

Shock and Vibration (Applies to all part numbers) Vibration Resistence 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

#### ANSI / ISA 12.12.01-2013

Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazadous (classified) locations This equipment is open-type device and is meant to be installed in an enclosure suitable for the enviroment such that the equipment is only accesible with the use of a tool suitable for use in Class 1, Division 2, Group A,B,C and Hazardous locations, or Nonhazardous locations only

WARNING-Explosion Hazard- Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations WARNING-Explosion Hazard- Substitution of any component may impair suitability for Class I, Division 2

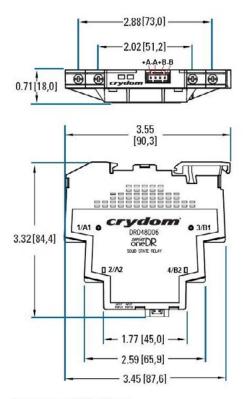








#### **MECHANICAL SPECIFICATIONS**<sup>(1)</sup>

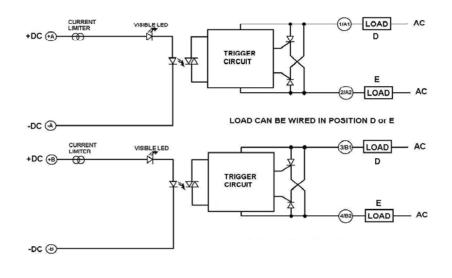


Tolerances: + 0.02in / 0.5mm

Dimensions are in inches [millimeters]

Mating connector is Molex 050579404 or equivalent

#### EQUIVALENT CIRCUIT BLOCK DIAGRAMS/WIRING DIAGRAMS

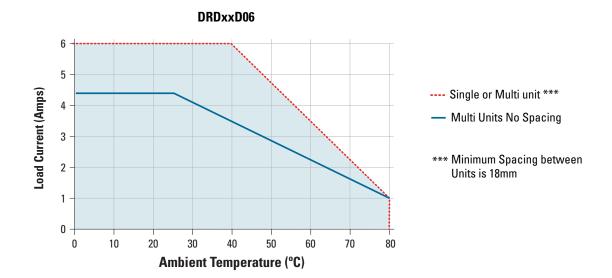








## **THERMAL DERATE INFORMATION**



## **AGENCY APPROVALS**



Rev. 101317 ECN 20337





<ul> <li>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.</li> <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> <li>Failure to follow these instructions will result in death or serious injury.</li> <li>RIESGO DE DESCARGA ELECTRICA O EXPLOSION.</li> <li>Desconectar todos los suministros d energia a est equipo antes de trabajar con este equi . Verificar toda las conexione y colocar tod las tapas an de energizer el equipo.</li> <li>El incumplimiento de estas instrucciones puede provocar la muerte o lesiones serias.</li> </ul>	e d'énergie de cet appareil avant de po. travailler dessus de cet s appareil as - Vérifier tous	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 dem Drehen auf Energie alle Anschlüsse überprüfen und alle Abdeckungen ersetzen. Unterlassung dieser Anweisungen können zum Tode oder zu schweren Verletzungen führen.	RISCHIO DI SCOSSA ELETTRICA O DELL'ESPLOSIONE. • 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 L'omissione di queste istruzioni provocherà la morte o lesioni serie	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。
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RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE	RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER	GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG	
<ul> <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>	<ul> <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>	<ul> <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>	
Failure to follow these instructions can result in serious injury, or equipment damage.	Le non-respect de cette directive peut entraîner, des lésions corporelles graves ou des dommages matériels.	Die Nichtbeachtung dieser Anweisung kann Körperverletzung oder Materialschäden zur Folge haben.	
RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD	RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO	材料损坏和高温外壳的危险性	
<ul> <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>	<ul> <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>	<ul> <li>产品的一侧面板可能很热,在其冷却前请 不要触碰。</li> <li>遵照正确的安装说明,包括扭矩值。</li> <li>请勿让液体及其他异物进入本产品。</li> </ul>	
Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales.	La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.	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。	





## **ANNEX - ENVIRONMENTAL 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	Toxic or hazardous Substance and Elements					
Name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	Х	0	0	0	0	0
Solder	X	0	0	0	0	0

### 附件 - 环保信息

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	有毒有害物质或元素					
名称	铅	铅 汞 镉 六价铬 多溴联苯 多溴二苯				多溴二苯醚
	(Pb)	(Hg)	(Cd)	(Cr (VI))	(PBB)	(PBDE)
半导体芯片	X	0	0	0	0	0
焊接点	X	0	0	0	0	0





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#### **CONTACT US**

**Regional head offices:** 

**United States of America** Sensata Technologies

Attleboro, MA

Phone: 508-236-3800 E-mail: support@sensata.com

Netherlands

Sensata Technologies Holland B.V. Hengelo

Phone: +31 74 357 8000 E-mail: support@sensata.com

#### China

Sensata Technologies China Co., Ltd. Shanghai **Phone:** +8621 2306 1500 **E-mail:** support@sensata.com

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