



# **Series 1-DC**



- MOSFET output
- Ratings from 60A to 100A @ 100 VDC
- DC control
- Relays are easily paralleled for higher-current applications

## PRODUCT SELECTION

Control Voltage	60A	80A	100A
3.5-32 VDC	D1D60	D1D80	D1D100

# **OUTPUT SPECIFICATIONS (1)**

Description	D1D60	D1D80	D1D100	
Operating Voltage [Vdc]	0-100 VDC	0-100 VDC	0-100 VDC	
Maximum Off-State Leakage Current @ Rated Voltage [mA]	0.1	0.2	0.3	
Maximum On-State Resistance @ Rated Current [RDS-ON][Ohms]	0.010	0.008	0.005	
Maximum Load Current (3) [Adc]	60	80	100	
Minimum Load Current [mA]	5	5	5	
Maximum Surge Current [Adc] (10ms)	180	220	330	
Maximum On-State Voltage Drop @ Rated Current [Vdc]	0.6	0.7	0.5	·
Thermal Resistance Junction to Case (Rjc) [°C/W]	0.6	0.47	0.32	

# **INPUT SPECIFICATIONS (1)**

Description	DC Control	
Control Voltage Range	3.5-32 VDC	
Minimum Turn-On Voltage	3.5 VDC	
Minimum Turn-Off Voltage	1.0 VDC	
Maximum Input Current	1.6 mA (5 VDC), 28 mA (32 VDC)	
Nominal Input Impedance	See Note 4	
Maximum Turn-On Time [µsec]	300	
Maximum Turn-Off Time [msec]	1.0	

## **GENERAL SPECIFICATIONS**

Description	Parameters			
Dielectric Strength, Input/Output/Base (50/60Hz)	2500 Vrms			
Minimum Insulation Resistance (@ 500 V DC)	10 <sup>9</sup> Ohm			
Maximum Capacitance, Input/Output	50 pF			
Ambient Operating Temperature Range -30 to 80°C				
Ambient Storage Temperature Range	-40 to 125 °C			
Weight (typical) 3.0 oz (86.5g)				
Encapsulation Thermally conductive Epoxy				
Terminals	Screws and Saddle Clamps Furnished, Unmounted			
Recommended Terminal Screw Torque Range:	6-32 Screws - 10 in lbs. 8-32 and 10-32 Screws -20 in. lbs. (Screws dry without grase)			

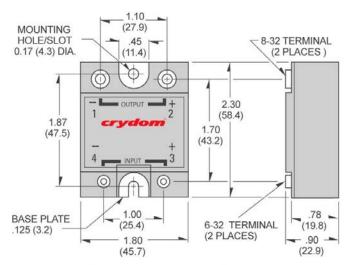
## **GENERAL NOTES**

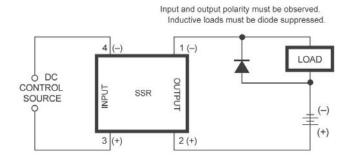
- 1) All parameters at  $25^{\circ}\text{C}$  and per section unless otherwise specified.
- 2) Dielectric strength and insulation resistance are measured between input and output
- 3) Heat sinking required, see derating curves.
- 4) Input circuitry version incorporates active current limiter.





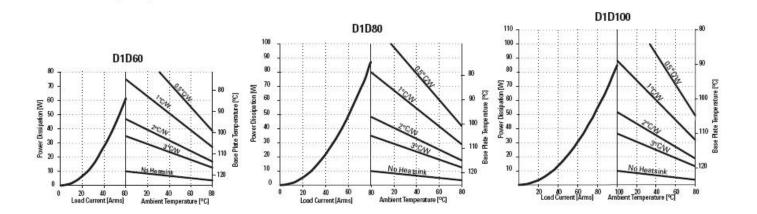
## **MECHANICAL SPECIFICATIONS**





All dimensions are in inches (millimeters)

## THERMAL DERATE INFORMATION



## **AGENCY APPROVALS**



Rev. 032509





## A 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.



# MARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO

# RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow time for 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 this instruction can result in serious injury, or equipment damage.

# RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD

- Los paneles laterales del producto pueden estar calientes. Esperar que el producto se enfrie 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.

### 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.

# RISCHIO DI DANNI MATERIALI E D'INVOLUCRO

- I pannelli laterali dell'apparecchio possono scottare; lasciar quindi raffreddare il prodotto prima di toccarlo.
- · Seguire le istruzioni di montaggio corrette.

CALDO

 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.

#### 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.

#### 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.





## **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.

	Toxic or hazardous Substance and Elements					
Part 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	Х	0	0	0	0	0

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

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Auto fal	有毒有害物质或元素					
部件 名称	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	0	0	0	О	0
焊接点	Х	0	0	0	0	0