

DRA4D SERIES

DIN RAIL MOUNT SOLID STAT RELAYS



Features

- DC Motor Reversing Contactor
- Ratings of 6 & 12 Amps
- Load voltage ratings of 1-100VDC and 1-250VDC
- Fits standard 35mm DIN-RAIL
- LED input status indicator. Green (Forward), Yellow (Reverse)
- DC control
- cUL Recognized, IEC Rated, CE & RoHS Compliant
- Horsepower Rated

SPECIFICATIONS

Product Selection

Control Voltage	12 A	6 A
5-15 VDC Control	DRA4D100D12	DRA4D250D6
15-32 VDC Control	DRA4D100E12	DRA4D250E6

Output Specifications ⁽¹⁾

Description	DRA4D100x12	DRA4D250x6
Operating Voltage [VDC]	1-100 ⁽³⁾	1-250 ⁽²⁾
Maximum Load Current [Adc] ⁽⁴⁾	12	6 ⁽⁵⁾
Minimum Load Current [mAdc]	1.0	1.0
Maximum Off-State Leakage Current @ Rated Voltage [uA]	1.0	20
Maximum On-State Voltage Drop @ Rated Current [Vpk]	0.1	0.1
Maximum Surge Current (10ms) [Apk]	110	91
On-State resistance at rated current (RDSOn) [Ohms]	0.011	0.45
Thermal Resistance Junction to Case (Rjc) [°C/W]	0.48	0.45
Min/Max stranded/solid wire [AWG]	24/10	24/10
Min/Max stranded/solid wire [IEC mm²]	0.5-4.0	0.5-4.0
HP Rating per UL508 @ 40°C	1/4, 4 FLA @ 90 VDC	1/4, 2 FLA @ 180 VDC
IEC 60947-4-1 Ratings DC-1	12 FLA @ 90 VDC, 1KW	6.0 FLA @ 180 VDC, 1KW
IEC 60947-4-1 Ratings DC-3	4.0 FLA @ 90 VDC, 360W	2.0 FLA @ 180 VDC, 360W

Input Specifications ⁽¹⁾

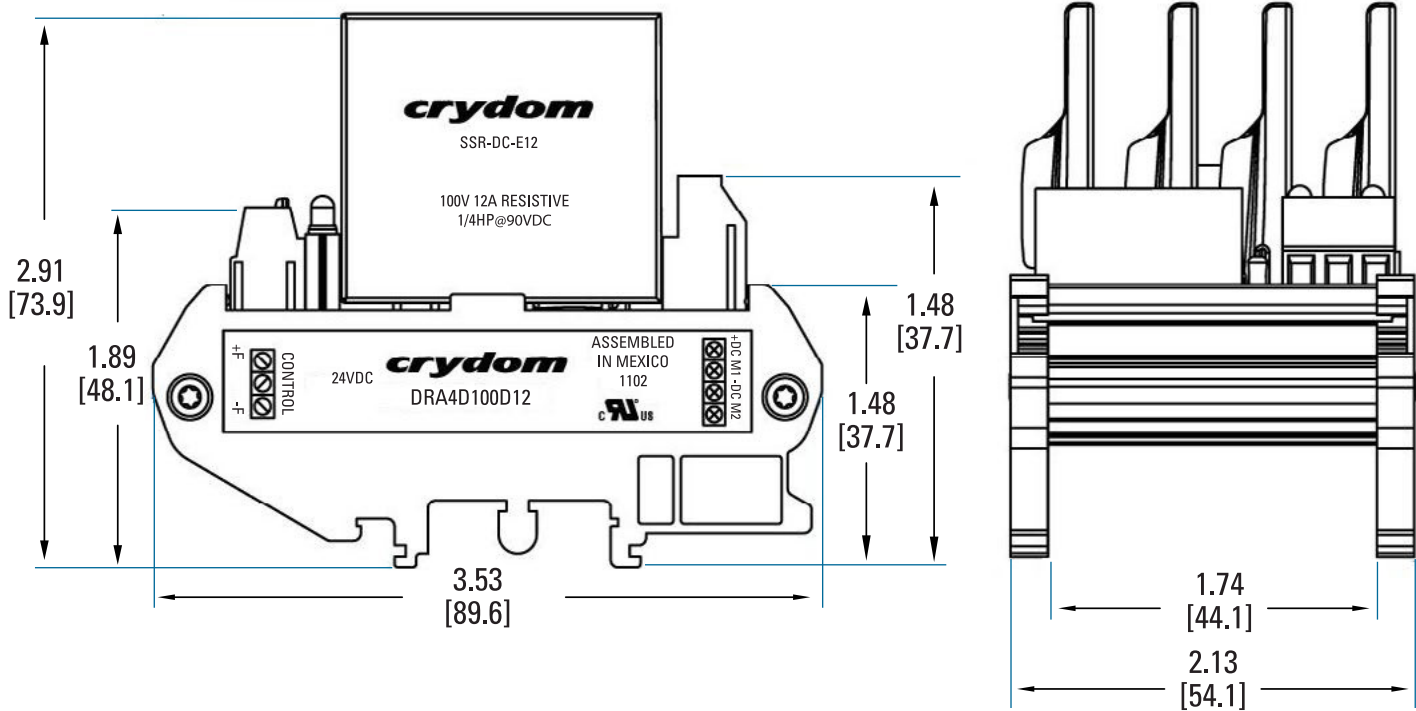
Description	DRA4DxxxD	DRA4DxxxE
Control Voltage Range	5.0-15 VDC	15-32 VDC
Must Turn-On Voltage	5.0 VDC	15 VDC
Must Turn-Off Voltage	2.5 VDC	2.9 VDC
Minimum Input Current [mA]	16	20.5
Maximum Input Current [mA]	24.5	22
Nominal Input Impedance	See Note 6	See Note 6
Maximum Turn-On Time [msec]	30	30
Maximum Turn-Off Time [msec]	0.33	0.33
Min/Max stranded/solid wire	24/12	24/12
Min/Max stranded/solid wire [IEC mm ²]	0.5-2.5	0.5-2.5

General Specifications

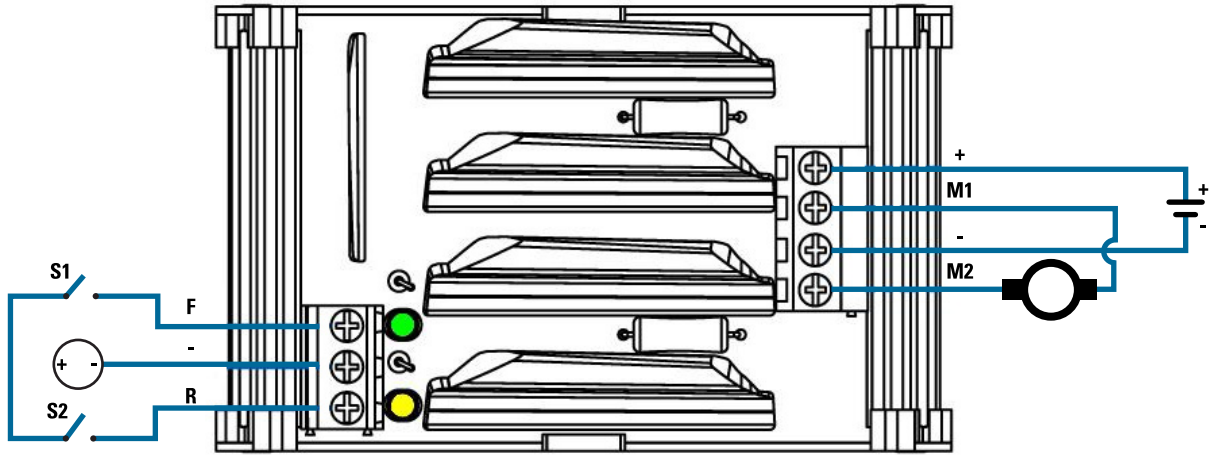
Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	2500Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	35 pF @ 1KHz
Ambient Operating Temperature Range	-30°C to 60°C
Ambient Storage Temperature Range	-30°C to 85°C
Recommended Terminal Screw Torque:	4.0 in lb (0.45 Nm)

MECHANICAL SPECIFICATIONS

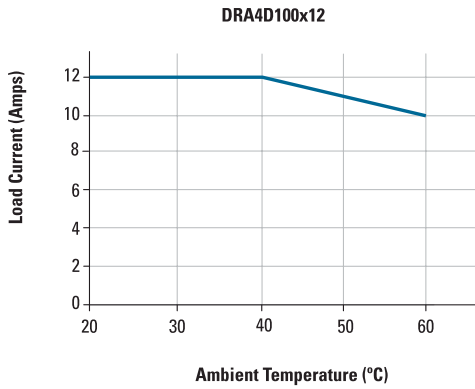
Tolerance: ±0.02 in / 0.5 mm
All dimensions are in: inches [millimeters]



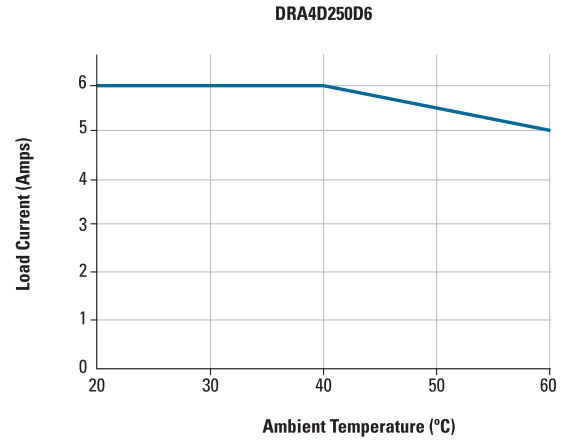
WIRING DIAGRAM



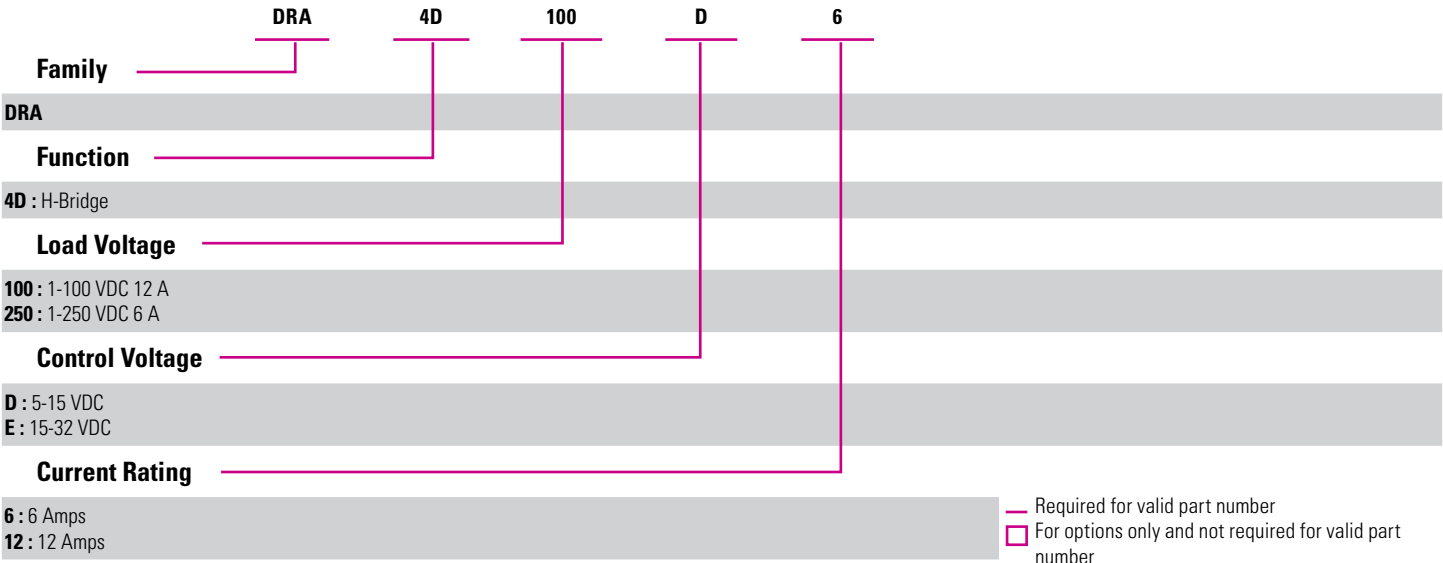
THERMAL DERATE INFORMATION



Rating based on single or multiple relays and no space between units.



Rating based on single or multiple relays with 45mm gap between units.
For no spacing between relays, maximum current @ 40° C is 5.5 A



GENERAL NOTES

- (1) All parameters at 25°C unless otherwise specified.
- (2) UL maximum rated voltage is 180 VDC
- (3) UL maximum rated voltage is 90 VDC.
- (4) At 40°C and mounted in vertical position
- (5) At 40°C single unit, multiple units need spacing of 45mm.
No spacing maximum current is 5.5 A
- (6) Input circuitry incorporates active current limiter.

AGENCY APPROVALS & CERTIFICATIONS



Designed in accordance with the requirements of IEC 62314
 IEC 61000-4-2 : Electrostatic Discharge – Level 3
 IEC 61000-4-4 : Electrically Fast Transients – Level 2 (Criteria A)
 IEC 61000-4-5 : Electrical Surges - Level 2 (Criteria A)

WARNINGS



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.



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.

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