

crydom

DataSheet Panel Mount

Series 1 120 VAC

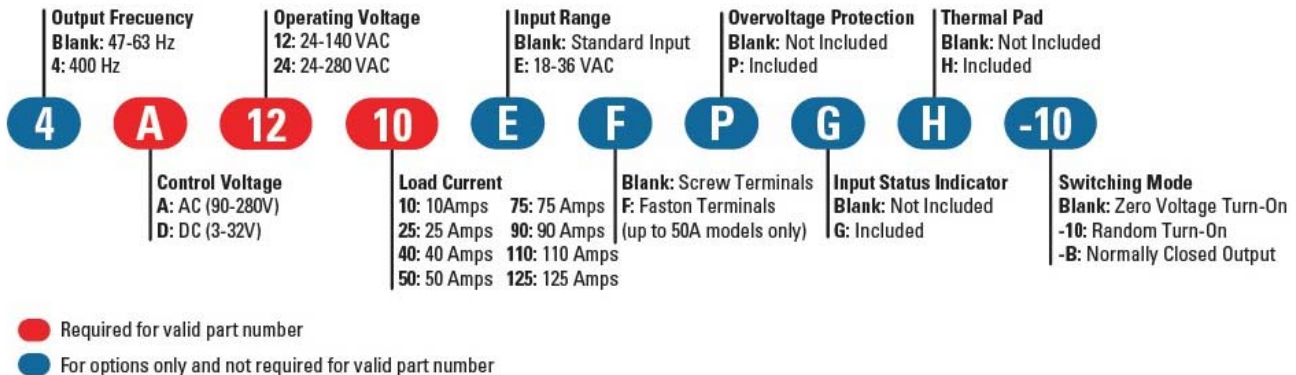


- Crydom's signature family of solid-state relays. Ratings from 10A to 40A @ 24-140 VAC
- SCR output for heavy industrial loads
- AC or DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

PRODUCT SELECTION

Control Voltage	10A	25A	40A
3-32 VDC	D1210	D1225	D1240
90-280 VAC	A1210	A1225	A1240
18-36 VAC	A1210E	A1225E	A1240E

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS (1)

Description	10A	25A	40A
Operating Voltage (47-63Hz) [Vrms]	24-140	24-140	24-140
Transient Overvoltage [Vpk]	400	400	400
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	8	8	8
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (2)	500	500	500
Maximum Load Current (3) [A _{rms}]	10	25	40
Minimum Load Current [mA _{rms}]	40	40	40
Maximum 1 Cycle Surge Current (50/60Hz) [A _{pk}]	115/120	239/250	597/625
Maximum On-State Voltage Drop @ Rated Current [V _{pk}]	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{jc}) [°C/W]	1.48	1.02	0.63
Maximum 1/2 Cycle I ² t for Fusing (50/60Hz) [A ² sec]	66/60	285/259	1779/1621
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

INPUT SPECIFICATIONS (1)

Description	(D PREFIX)	(A PREFIX)	(E SUFFIX)
Control Voltage Range	3-32 VDC (5)	90-280 Vrms	18-36 Vrms
Maximum Reverse Voltage	-32	-	-
Maximum Turn-On Voltage	3.0 VDC	90 Vrms	18 Vrms
Minimum Turn-Off Voltage	1.0 VDC	10 Vrms	4.0 Vrms
Typical Input Current	3.4-20 mA	2.0-4.0 mA	3 mA
Nominal Input Impedance [Ohms]	1500 Ohm	60 K Ohm	9.0 K Ohm
Maximum Turn-On Time [msec] (4)	1/2 Cycle	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	40	40

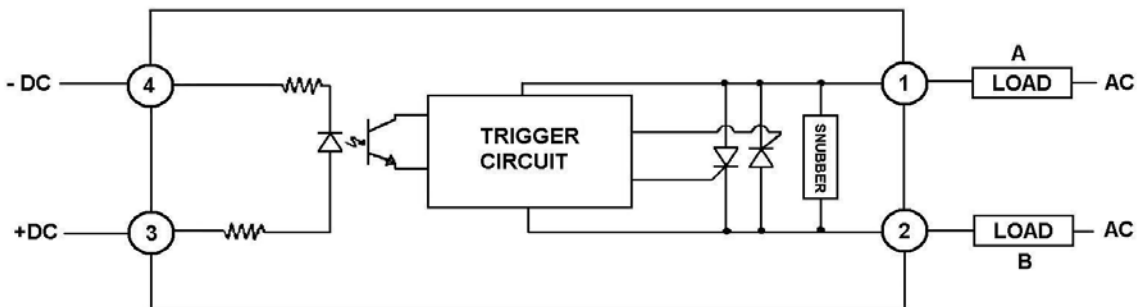
GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Terminals	Screw and saddle Clamps Furnished, Unmounted
Recommended Terminal Screw Torque Range:	6-32 Screws - 10 in/lbs. 8-32 & 10-32 Screws - 20 in. lbs.
Fastons:	Single pair (up to 25A) Double pair* (50A model only) *Caution: User must connect to both pairs

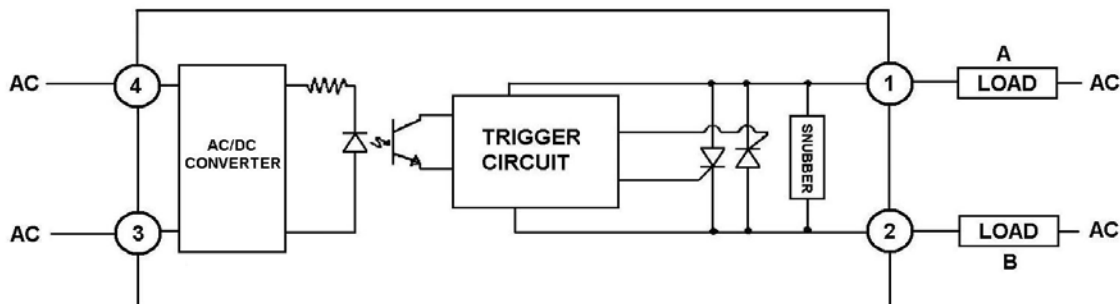
GENERAL NOTES

- 1) All parameters at 25°C unless otherwise specified.
- 2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 3) Heat sinking required, for derating curves see page 3.
- 4) Turn-on time for Random turn-on versions is 0.02 msec (DC Control Models)
- 5) For relays with option "G" minimum control voltage is 4.5VDC

WIRING DIAGRAM



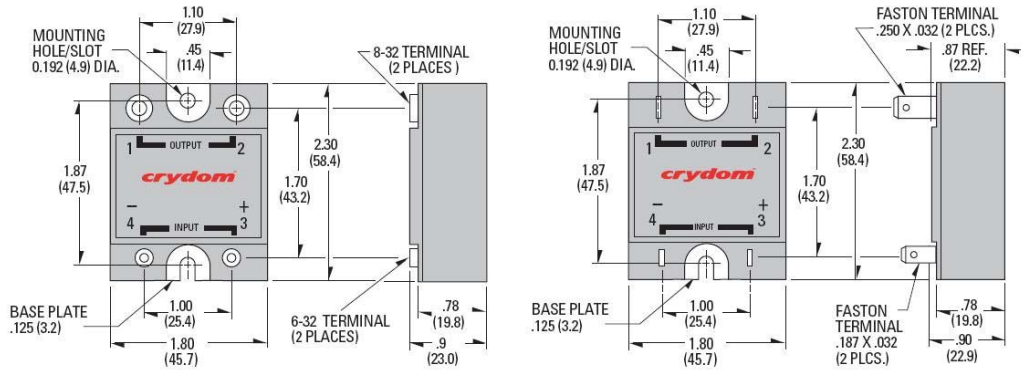
Load can be wired in location A or B



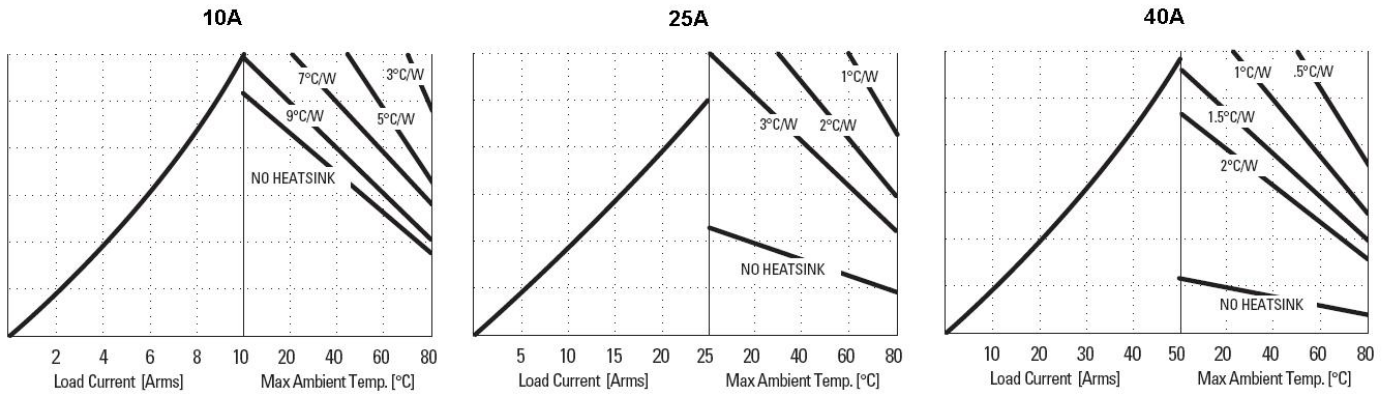


Panel Mount DataSheet

MECHANICAL SPECIFICATIONS



THERMAL DERATE INFORMATION



AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314
 EN60950 : Meets the requirements of sections 1.5: 1,7: 2.9: 2.10.5.3: 4.2: 4.5: 4.7:



E116949



LR81689



10143 UG (Not Applicable: -B and 4D)



Rev. 120811