



QUAD SERIES

PANEL MOUNT SOLID STATE RELAYS



Features

- 4 independent relays in one package
- Industry standard package
- SCR output for heavy industrial loads
- DC Control
- Zero voltage turn-on (resistive loads) or instantaneous turn-on (inductive loads) output

PRODUCT SELECTION

Control Voltage	20 A
4-15 VDC	TD2420Q
15-28 VDC	TD2420QE

SPECIFICATIONS

Output ^(A)

Description	20 A
Operating Voltage (47-63Hz) [Vrms]	24-280
Transient Overvoltage [Vpk]	550
Maximum Off-State Leakage Current @ Rated Voltage [mA]	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/sec] ^(B)	200
Maximum Load Current [Arms] ^(C)	20
Minimum Load Current [Arms]	0.15
Maximum 1 Cycle Surge Current (50/60Hz)[Apk]	285/259
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6
Maximum 1/2 Cycle I ² t for Fusing (50/60) [A ² sec]	285/259
Maximum Thermal Resistance Junction to Case (Rjc) (°C /W)	1.2
Minimum Power Factor (with Maximum Load)	0.5

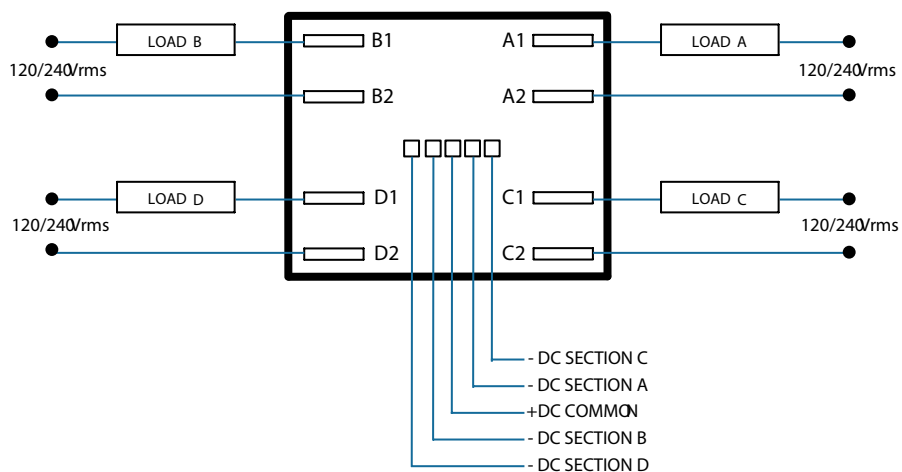
Input ^(A)

Description	TD2420Q	TD2420QE
Control Voltage Range	4-15 VDC	15-28 VDC
Must Turn-On Voltage	4.0 VDC	15 VDC
Must Turn-Off Voltage	1.0 VDC	1 VDC
Typical Input Current	12mA @5 VDC,	15 mA@ 24 VDC
Nominal Input Impedance	330 Ohm	1500 K Ohm
Maximum Turn-On Time [msec] ^(D)	1/2 Cycle	1/2 Cycle
Maximum Turn-Off Time [msec]	1/2 Cycle	1/2 Cycle

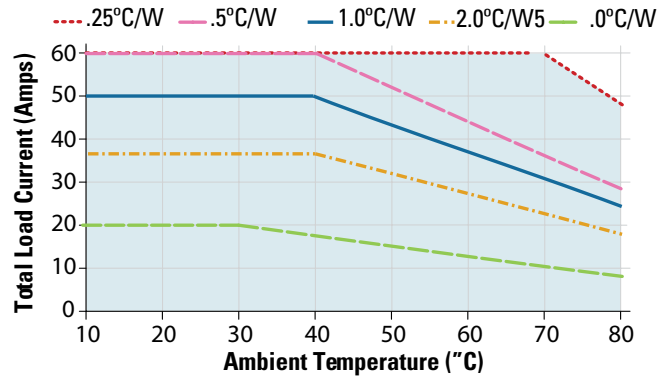
General ^(A)

Description	Parameters
Dielectric Strength, Input/Output to Base (50/60Hz)	2500 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 9 Ohms
Maximum Capacitance, Input/Output	10 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C
Weight (typical)	3.5 oz (109 g)
Encapsulation	Thermally Conductive Epoxy
Terminals	.25" Fastons, .025" Square Pins

WIRING DIAGRAM



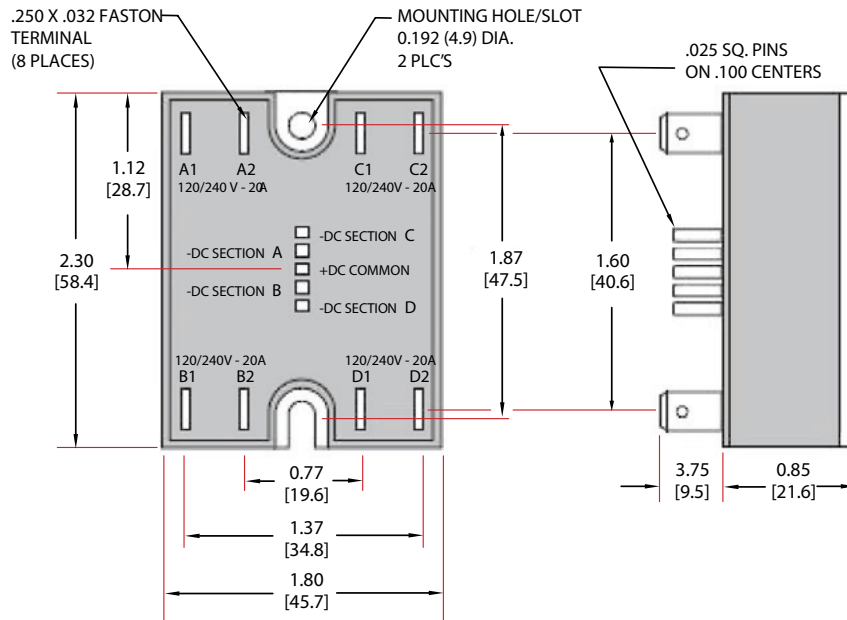
THERMAL DERATE INFORMATION



MECHANICAL SPECIFICATIONS

Tolerances: ±0.02 in / 0.5 mm

All dimensions are in millimeters [inches]



ORDERING OPTIONS

Example : TD2420QE-10

Option	Series	Control Voltage	Thermal Pad	Switching Type
TD2420Q	TD2420Q			
E		E: 4-15 VDC Blank: 15-28 VDC		
H			Blank: Not Included H: Included	
-10				Blank: Zero Voltage Turn-On -10: Instantaneous Turn-On

Required for valid part number
 For options only and not required for valid part number

GENERAL NOTES

- (A) All parameters at 25°C and per section unless otherwise specified
- (B) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- (C) Heat sinking required, max. 20 A per section, max. 60 A per package
- (D) Turn-on time for Instantaneous turn-on versions is 0.1 msec.

AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314



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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