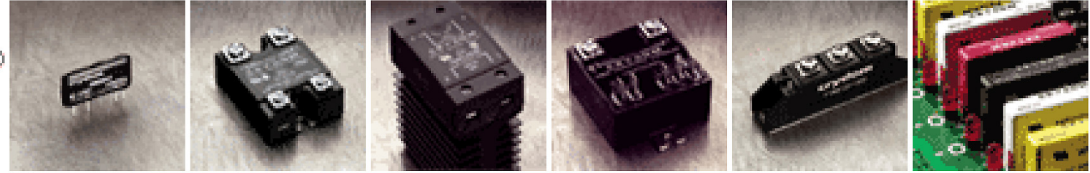




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Solid State Relays - Panel Mount: NTD/NTA



Features

Triac output • 10-25Amp • 120/240 Vac • AC switching • AC/DC controlled

Product	INPUT SPECIFICATIONS	OUTPUT SPECIFICATIONS			
	Control Voltage Range	Load Current	Switching Voltage Type	Turn On	Load Voltage Range
NTD2405	4-15 Volts DC	0.15-5 Amps RMS	AC	Zero cross	24-280 Volts RMS
NTD2405-10	4-15 Volts DC	0.15-5 Amps RMS	AC	Random	24-280 Volts RMS
NTD2410	3-32 Volts DC	0.15-10 Amps RMS	AC	Zero cross	24-280 Volts RMS
NTD2410-10	3-32 Volts DC	0.15-10 Amps RMS	AC	Random	24-280 Volts RMS
NTD2425	3-32 Volts DC	0.15-25 Amps RMS	AC	Zero cross	24-280 Volts RMS
NTD2425-10	3-32 Volts DC	0.15-25 Amps RMS	AC	Random	24-280 Volts RMS
NTA2410	90-140 Volts RMS	0.15-10 Amps RMS	AC	Zero cross	24-280 Volts RMS

- **Panel Mount**
- **Zero Voltage or Random Turn-On Switching**
- **Wide Control Voltage Range**
- **DC Control, AC Control**

The Series NTD is available featuring zero-voltage or random switching and a broadened operating range (24-280Vac). This wide range permits optimum performance at both 120Vac and 240Vac line voltages. Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

OUTPUT SPECIFICATIONS ①	DC Control (NTD)		AC Control (NTA) ⑥	
	NTD2410	NTD2425	NTA2410	NTA2425
Operating Voltage (47-63 Hz) [Vrms]	24-280	24-280	24-280	24-280
Load Current Range ③ [Arms]	0.15-10	0.15-25	0.15-10	0.15-25
Transient Overvoltage [Vpk]	600	600	600	600
Max. Surge Current, (16.6ms) [Apk]	120	250	120	250
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{θJC}) [°C/W]	1.48	1.02	1.48	1.02
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]	60	260	60	260
Max. Off-State Leakage Current @ Rated Voltage [mA]	10	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②	200	200	200	200
Max. Turn-On Time ④	1/2 Cycle	1/2 Cycle	10 ms	10 ms
Max. Turn-Off Time	1/2 Cycle	1/2 Cycle	40 ms	40 ms
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS ①	DC Control (NTD)		AC Control (NTA) ⑥	
	NTD2410	NTD2425	NTA2410	NTA2425
Control Voltage Range	4-15 Vdc	3-32 Vdc	3-32 Vdc	90-140 Vrms
Max. Turn-On Voltage	4.0 Vdc	3.0 Vdc	3.0 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	1.0 Vdc	1.0 Vdc	10 Vrms
Nominal Input Impedance	300 ohms	See note ⑤	See note ⑤	10.6 kOhm
Typical Input Current @ 5 Vdc (@ 120 Vrms for NTA)	13 mA _{dc}	10 mA _{dc}	10 mA _{dc}	10 mA _{rms}

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 2.
- ④ Turn-On time for random turn-on versions is 0.02 msec. (DC control models)
- ⑤ Input circuitry incorporates active current limiter.
- ⑥ 24 Vac Control Version Available (use suffix E)

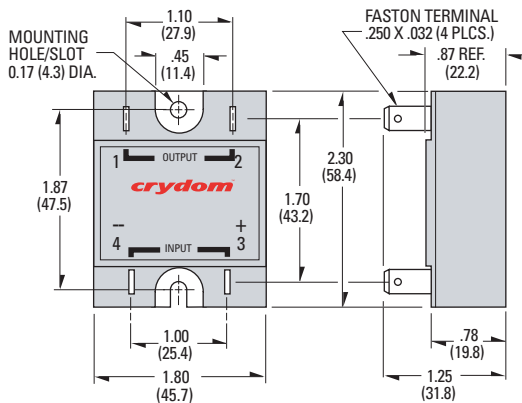
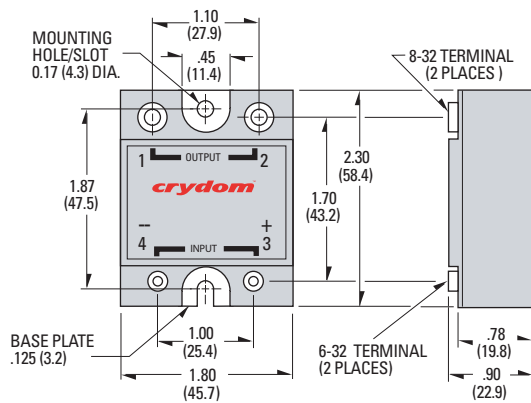
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GENERAL SPECIFICATIONS

Dielectric Strength	50/60Hz, Input/Output/Base	3750 Vrms
Insulation Resistance (Min.) @ 500 Vdc		10 ⁹ Ohm
Max. Capacitance Input/Output		10 pF
Ambient Operating Temperature Range		-40 to 80°C
Ambient Storage Temperature Range		-40 to 125°C

MECHANICAL SPECIFICATIONS

Weight: (typical)	3.0 oz. (86.5g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished, Unmounted



All dimensions are in inches (millimeters)

Screw Torque Requirements:
 6-32 Screws - 10 in./lbs.,
 8-32 and 10-32 Screws - 20 in./lbs.
 (Screws dry without grease.)

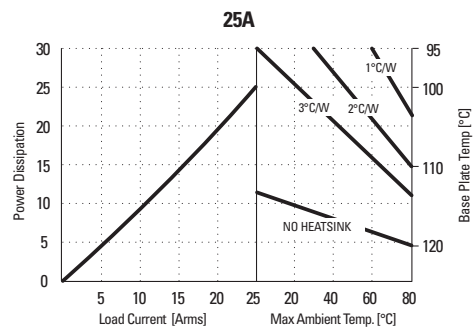
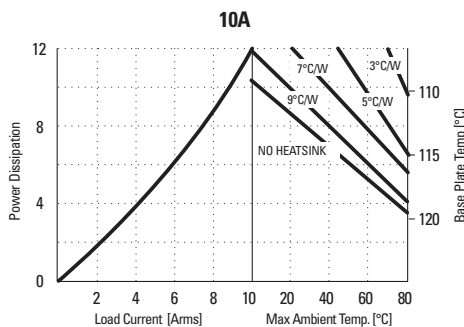
Terminal Hardware Furnished:
 4 Screws and 4 Saddle Clamps

Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

AVAILABLE OPTIONS

- 10 Random Turn-On Phase Controllable
Example: **NTD2425-10**
- F Faston Terminals
.250 x .032 Faston Terminals (Shown above)
Example: **NTD2425F**
- E 24 Vac Control
Example: **NTA2425E**

CURRENT DERATING CURVES



APPROVALS

UL /cUL E116950
 CSA LR81689

