



## CTR SERIES

DIN RAIL MOUNT



### Features

- Ratings 25 A per phase @ 600 VAC
- DIN-RAIL or Panel Mount 90mm (width) package
- UL 508 Endurance Rating for Enhanced Reliability
- SCR output for heavy industrial loads
- Overvoltage Protection Built in (Internal TVS)
- LED input Status indicator
- AC or DC control
- Zero voltage or instantaneous turn-on output
- UL Recognized, CE, RoHS and EMC Compliant



### PRODUCT SELECTION

Control Voltage	25 A
4-32 VDC Control	CTRD6025
90-140 VAC Control	CRTB6025
180-280 VAC Control	CTRC6025



### OUTPUT SPECIFICATIONS <sup>1</sup>

Description	CTR <sub>x</sub> 6025
Operating Voltage (47-63Hz) [Vrms]	48-600
Transient Overvoltage [Vpk]	1100
Maximum Load Current [Arms] <sup>2</sup>	25
Minimum Load Current [Arms]	0.1
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.25
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] <sup>3</sup>	500
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.35
Maximum Surge Current (50/60Hz, 1 Cycle) [Apk]	286/300
Maximum I <sup>2</sup> t for Fusing (50/60Hz, 1/2 cycle) [A <sup>2</sup> sec]	410/374
UL/IEC 60947 Motor Control Rating @ 240V [HP/KW] <sup>4</sup>	1/0.74
UL/IEC 60947 Motor Control Rating @ 380V [HP/KW] <sup>4</sup>	2/1.48
UL/IEC 60947 Motor Control Rating @ 480V [HP/KW] <sup>4</sup>	3/2.22
Minimum Power Factor (with Maximum Load)	0.5
Min/Max stranded wire	16/8 AWG
Min/Max solid wire	16/10 AWG



## INPUT SPECIFICATIONS <sup>1</sup>

Description	CTRD6025	CMRA48xx	CTRC6025
Control Voltage Range	4.0-32 VDC	90-140 Vrms	180-280 Vrms
Minimum Turn-On Voltage	4.0 VDC	90 Vrms	180 Vrms
Must Turn-Off Voltage	1.0 VDC	10 Vrms	10 Vrms
Minimum Input Current <sup>5</sup>	22 mA	15 mA	19 mA
Maximum Input Current <sup>5</sup>	28 mA	19 mA	24 mA
Maximum Turn-On Time [msec] <sup>6</sup>	1/2 Cycle	20	20
Maximum Turn-Off Time [msec]	1/2 Cycle	30	30
Min/Max stranded/solid wire	24/16 AWG	24/16 AWG	24/16 AWG



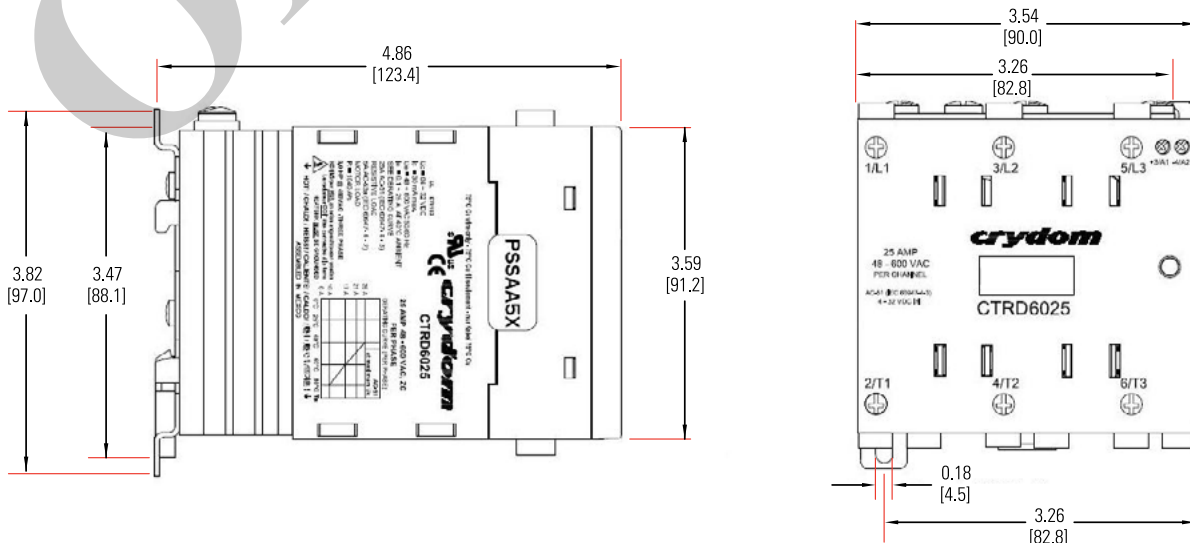
## GENERAL SPECIFICATIONS <sup>1</sup>

Description	Parameters
Dielectric Strength, Input/Output /Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 <sup>9</sup> Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range <sup>7</sup>	-20 to 80 °C
Ambient Storage Temperature Range	-40 to 100 °C
Status Indicator Display	Green LED
Weight (typical)	21.2 oz. (600g)
Terminals	Box Clamp Type
Recommended Terminal Screw Torque Range	5.0-6.0 in lib (0.6-0.7 Nm)
Min. Side by Side Spacing	0.8 inch (20mm)



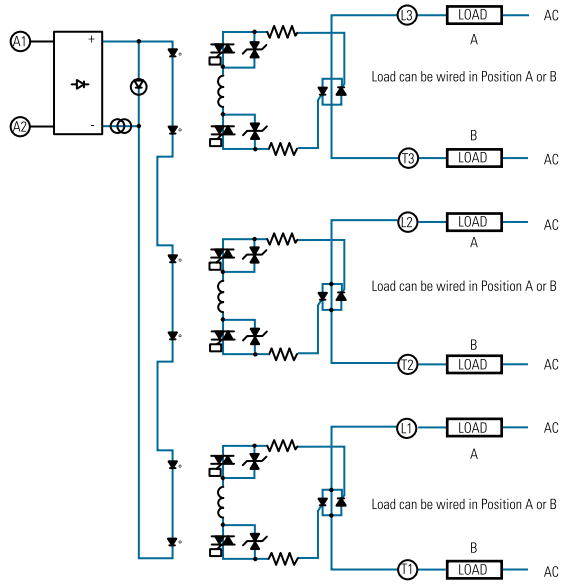
## MECHANICAL SPECIFICATIONS

\* Tolerances: ±0.02 in / 0.5 mm All dimensions are in: inches [millimeters]



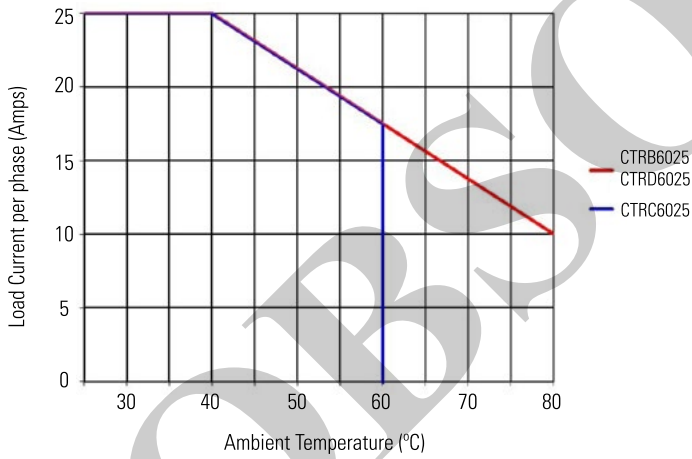


## WIRING DIAGRAM



## THERMAL DERATE INFORMATION

Derating curve: CTR Series

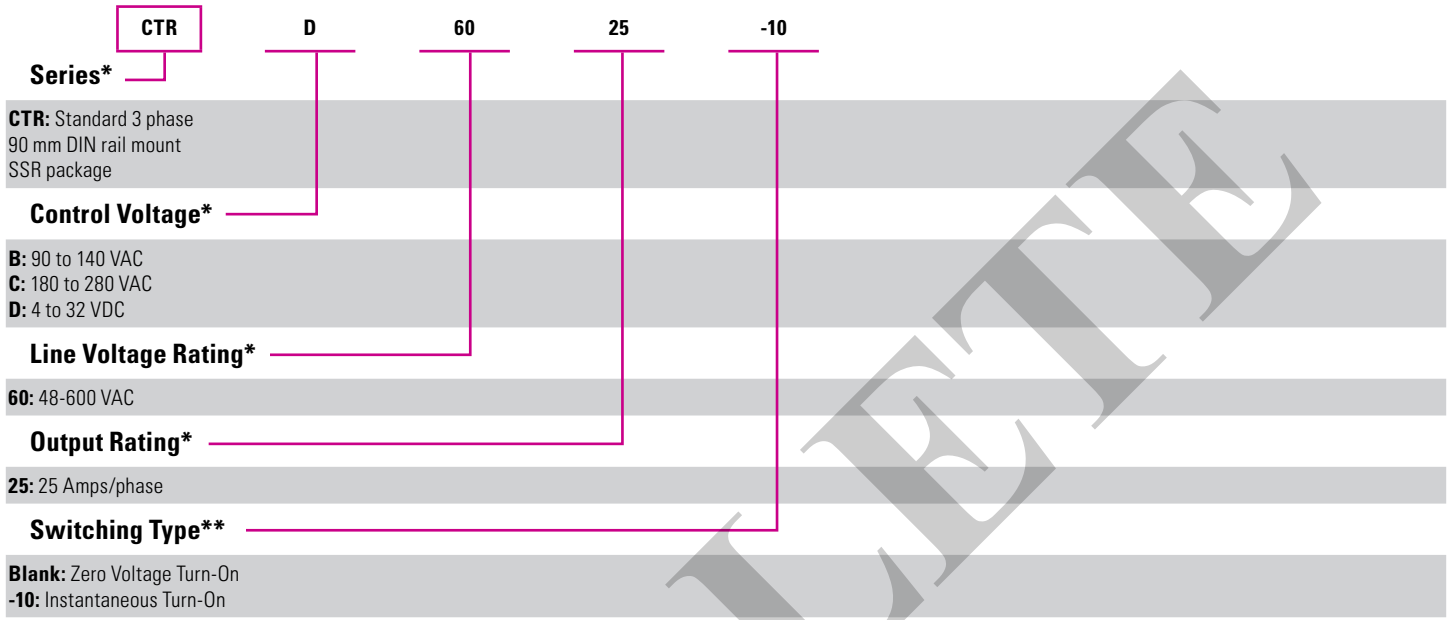




# AVAILABLE OPTIONS

Example : CTRD6025-10

Not all part number combinations are available.  
Contact Crydom Technical Support for information on the availability of a specific part number.



\*Required for valid part number

\*\*For options only and not required for valid part number

OBSOLETE

## GENERAL NOTES

- (1) All parameters at 25°C unless otherwise specified.
- (2) See Derating Curves.
- (3) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- (4) At 40°C Ambient temperature.
- (5) Turn-on time for DC control Instantaneous turn-on versions is 0.05 msec.
- (6) Input circuitry incorporates active current limiter.
- (7) For 180-280 VAC Control. Maximum Ambient operating temperatures is 60°C.

For additional information or specific questions, contact Crydom Technical Support

## AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314

### EMC Compatibility

IEC 62314

IEC 60068-2-6 35mm/10-55Hz

IEC 60068-2-27 15G / 11ms

IEC 61000-4-2 Level 3 Electrostatic Discharge

IEC 61000-4-3 Level 3 Radiated Electromagnetic Noise

IEC 61000-4-4 Level 3 Immunity to Electrically Fast Transients

IEC 61000-4-5 Level 3 Immunity to Electrical Surges

IEC 61000-4-6 Level 3 Conducted Electromagnetic Noise

CISPR 11 Class A Conducted and Radiated Noise for Industrial Environments

Pollution Degree 2

Overvoltage Category III



## 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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