

CAPACITOR TRIP DEVICE

Model CTD-4 (120 VAC or 240 VAC)

cULus E300189



Application: This device provides a source of energy for circuit breakers and switch trip coil operation during a loss of AC control voltage.

Operation: The capacitor is continuously charged when control power is available, providing energy for normal trip coil operation. Because mechanical relays are not involved, energy for the trip coil operation is immediately available with the loss of control power. When the control power returns, the capacitor automatically charges to supply energy for the next trip coil operation.

Nominal 120VAC, or 240VAC is applied between “INPUT” and “COMMON” terminals. This voltage is half wave rectified and applied across the trip capacitors, yielding an output trip voltage. The charge stored in these capacitors is available between “+” and “COMMON” terminals for the breaker trip coil operation. The half wave rectification circuitry provides the advantage of maintaining a common neutral connection from the input and output while still maintaining the charge in the capacitor after a loss of control power.

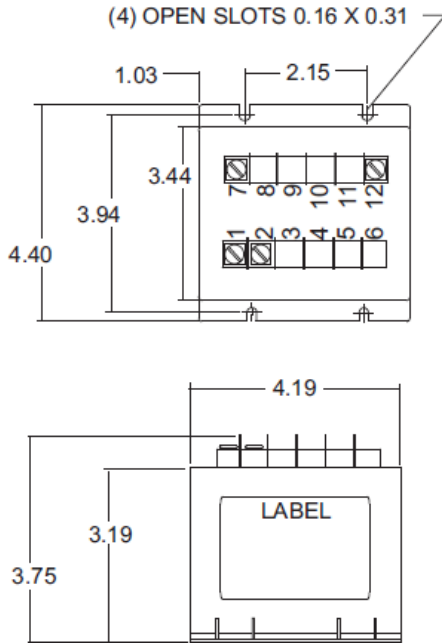
These devices are protected against inadvertent short circuits, input from line voltage surges and inductive kickback from trip coils.



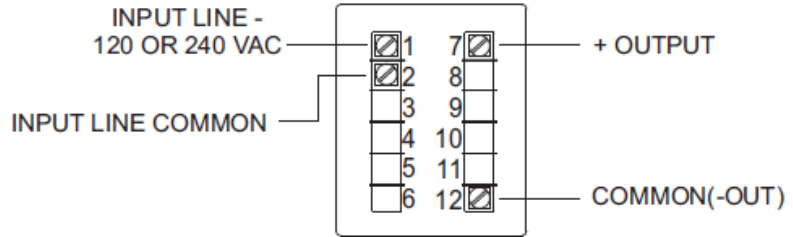
SPECIFICATIONS	CTD-4-120	CTD-4-240
Normal Input Voltage	120 VAC	240 VAC
Max. Input Voltage	140 VAC	280 VAC
Frequency	DC to 400Hz	DC to 400 Hz
Available Energy	64 joules	57 joules
Trip Capacitor fully charged at Normal Input Voltage	+/- 20% @25 Deg. C	+/-20% @25 Deg. C
Normal Output Voltage	169 Volts DC	338 Volts DC
Approx. Charge Time to 90% @ 25C	1.4 Sec.	570mS
Capacitance	4500uF +/-20%@25 Deg C	990 uF +/-20% @Deg C
Temp. Influence on Capacitor	-10% @-30 Deg. C/+5% @60 Deg. C	
Ambient Operating Temperature	-30 Deg. C to 60 Deg. C	
Ambient Storage Temperature	-50 Deg. C to 80 Deg. C	
Short Circuit Protection	Continuous	
Mounting	Vertical or Horizontal	
Input Transient Protection	MOV protected to 65 joules single pulse transient	

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TYPICAL CONNECTION DIAGRAM



CTD SCHEMATIC

