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ICTD-2

Capacitor Trip Device

Part Number: 1100-7003



ICTD-2 Capacitor Trip Device

The ICTD-2 Capacitor Trip Device includes a capacitor bank that stores energy to operate a breaker trip-coil circuit in the event of a temporary loss of 120V AC control voltage.

Primary features of the ICTD-2 include a 6000uF capacitor bank, a modern PCB-based design for improved reliability, and a unique shunt impedance selection to allow operation with a wide variety of modern and older breakers,

A "Trip Power" lamp indicates when the capacitors are charged. The "Circuit Complete" lamp indicates that a complete trip circuit is in place. The "Control Power" lamp indicates when control power is present.

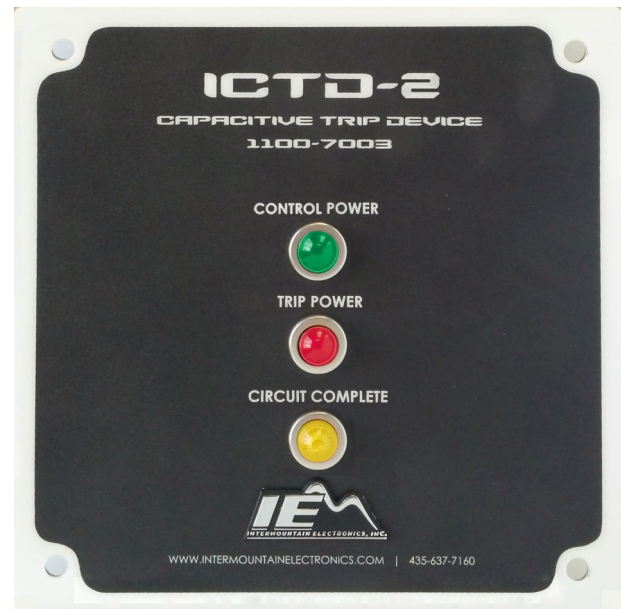
A PCB jumper is used to set the shunt trip circuit for the low-Z shunt coils used in many industry-standard breakers, or for various high-Z/low-current shunt circuits used in some modern breakers. This jumper allows the ICTD-2 to be compatible with a wide array of older and modern breaker designs.

The ICTD-2 also includes an IE expansion module (1100-7110) which adds 0-10V outputs indicating the charge level of the capacitor bank and the rectified control voltage for remote monitoring.

Features:

- 6000uF capacitor bank (86.7 Joules) for longer storage times.
- Trip Power lamp lights when capacitor bank is charged.
- Circuit Complete lamp lights when the trip circuit is complete.
- Control Power lamp lights when control power is present.
- Modern, PCB-based design.
- Includes IE Expansion Module (1100-7110) to add remote monitoring capability.
- Settable shunt impedance jumper for optimal performance with both shunt coils and high-impedance electronic trip circuits.

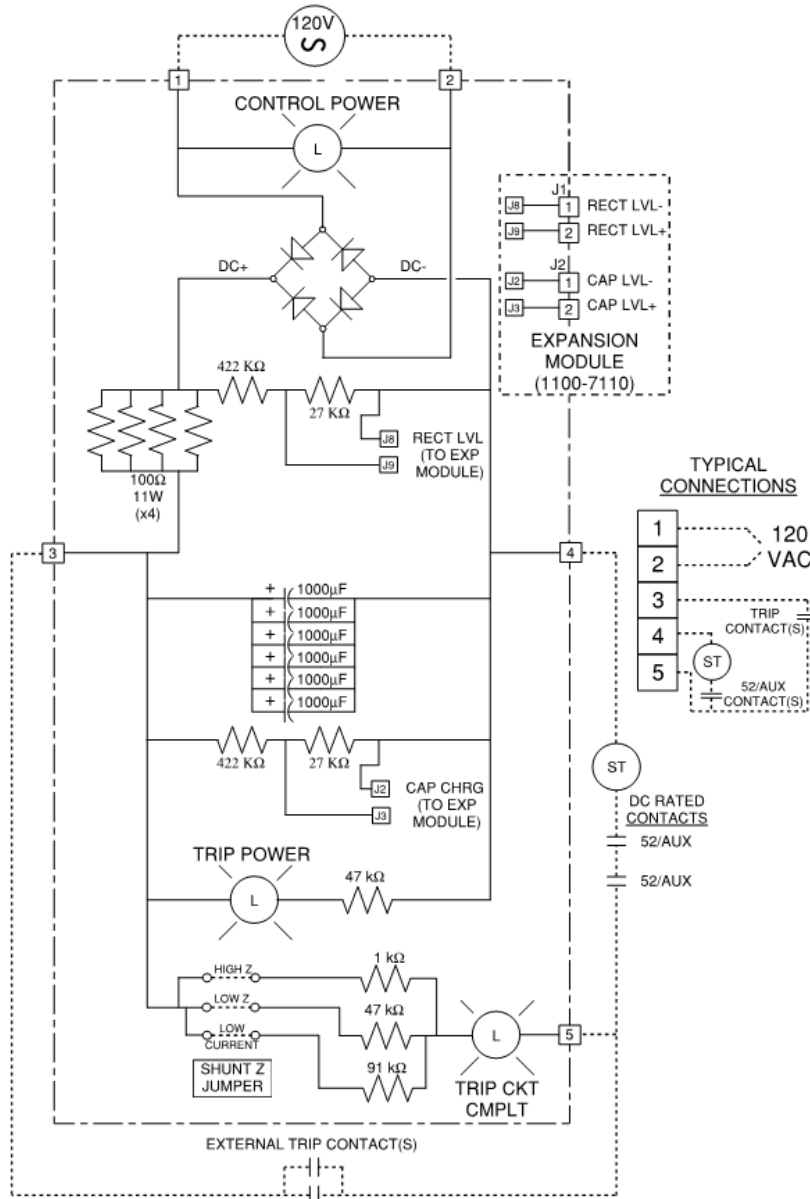
Front Panel



Specifications:

- Capacitor Charge Time: <1 Second
- Typical capacitor storage time: 40 Seconds
(varies for different shunt coils/circuits)
- Input voltage: 120 VAC
- Output voltage: 170 VDC
- Trip Contacts: 10A/240VAC
(Resistive)
- Storage Capacity: 6000uF/86.7 Joules
- Expansion Module: P/N:1100-7110 (Two 2-pin barrier strips, monitoring of cap charge & Rectified Supply)
- Shunt Z Jumper settings (jumper located on PCB):
 - LOW Z: For most solenoid-type shunt coils
 - HI-Z: For most electronic trip circuits
 - LOW CURRENT: For particularly sensitive electronic trip circuits that may trip due to monitoring current. (See note below.)

Circuit/Connection Diagram:



Notes:

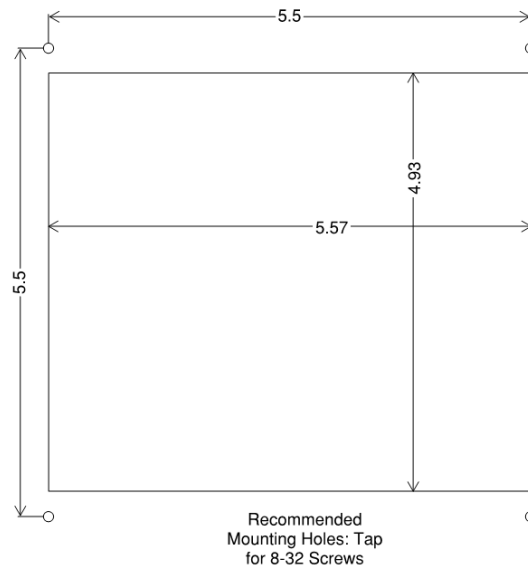
1. Electronic trip circuits and trip coils vary widely between breakers. Because of this, it is necessary to thoroughly test the ICTD-2/breaker combination to make sure the breaker trips and closes properly.
2. The "Shunt Z Jumper" should be placed in the "LOW Z" setting for most breakers with shunt coils. "HIGH Z" is used with most breakers with high impedance shunt trip circuits. The "LOW CURRENT" setting may be required for some breakers with particularly sensitive trip circuits, which may trip due to the small trip circuit monitoring current. In the "LOW CURRENT" setting, the "CIRCUIT COMPLETE" lamp may not fully light, so this setting should only be used when required. The ICTD-2/breaker combination should be thoroughly tested with the jumper position selected.
3. Cap Level and Rectifier level monitoring outputs (on the Expansion Module) are designed for high-impedance (MΩs) input metering circuits. Lower input impedances will work, but the full scale reading will be reduced. With a high-impedance input, full level (170V) will read as 10V, but a 10 kΩ input impedance will result in full-charge readings of 2.6V.



Mechanical Characteristics



Recommended Panel Cutout



Important Notice

This document contains information intended to aid in the proper installation and operation of the product described. Although this information will prove useful to the properly trained and qualified user, it is not practical to cover every possible situation, installation contingency, or other detail.

It is imperative that proper engineering and techniques are adhered to in the installation, operation, and maintenance of this product. It is the responsibility of the user to ensure that any system utilizing this product is safe, and that all personnel involved with the selection, installation, maintenance, and use of this product are properly qualified. This product must not be used in situations where its ratings are exceeded.

While every effort has been made to make sure the information in this document is accurate, IE cannot guarantee that there are no errors. Users of this product should verify any aspects of the product's design or performance that are critical to their application, and in particular, any aspects that may affect the safety of the overall system or installation.

Product design and specifications may change without notice.