INTERMOUNTAIN ELECTRONICS, INC.
www.intermountainelectronics.com
Phone: (877) 544-2291

ICTD-1

Capacitor Trip Device with UV Interlock Feature

Part Number: 1100-7002

ICTD-1 Capacitor Trip Device with UV Interlock Feature

The ICTD-1 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-1 include a 6000uF capacitor bank, a UV interlock feature for enhanced safety, and a modern PCB-based design with improved reliability. In addition, a unique shunt impedance selection allows operation with a wide variety of modern and older breakers,

A "Trip Power" lamp indicates when the capacitors are fully charged. The "Trip Circuit Complete" lamp indicates that a complete trip circuit is in place (including a shunt coil or shunt circuit).

The ICTD-1's UV interlock feature may be used to energize a breaker's UV coil when the capacitors are charged. This prevents a breaker from being closed when there is not sufficient energy stored to trip the breaker. The UV may be temporarily de-energized for test purposes by pressing the "UVR TEST" button.

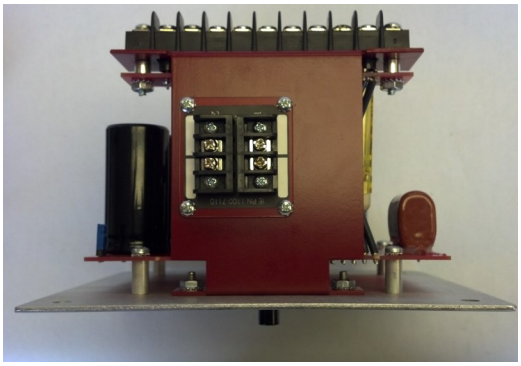
A PCB-jumper is used to set the shunt trip circuit for the low-Z shunt coils used in many industry-standard breakers, or for the high-Z shunt circuits used in some modern breakers. Setting this jumper properly ensures proper operation of both the trip function and the "Trip Circuit Complete" indicator on the ICTD-1.

The ICTD-1 also includes the IE 1100-7110 Expansion Module, which adds a 0-10V output indicating the charge level of the capacitor bank for external monitoring, as well as contacts for remotely operating the UVR Test function.

Features:

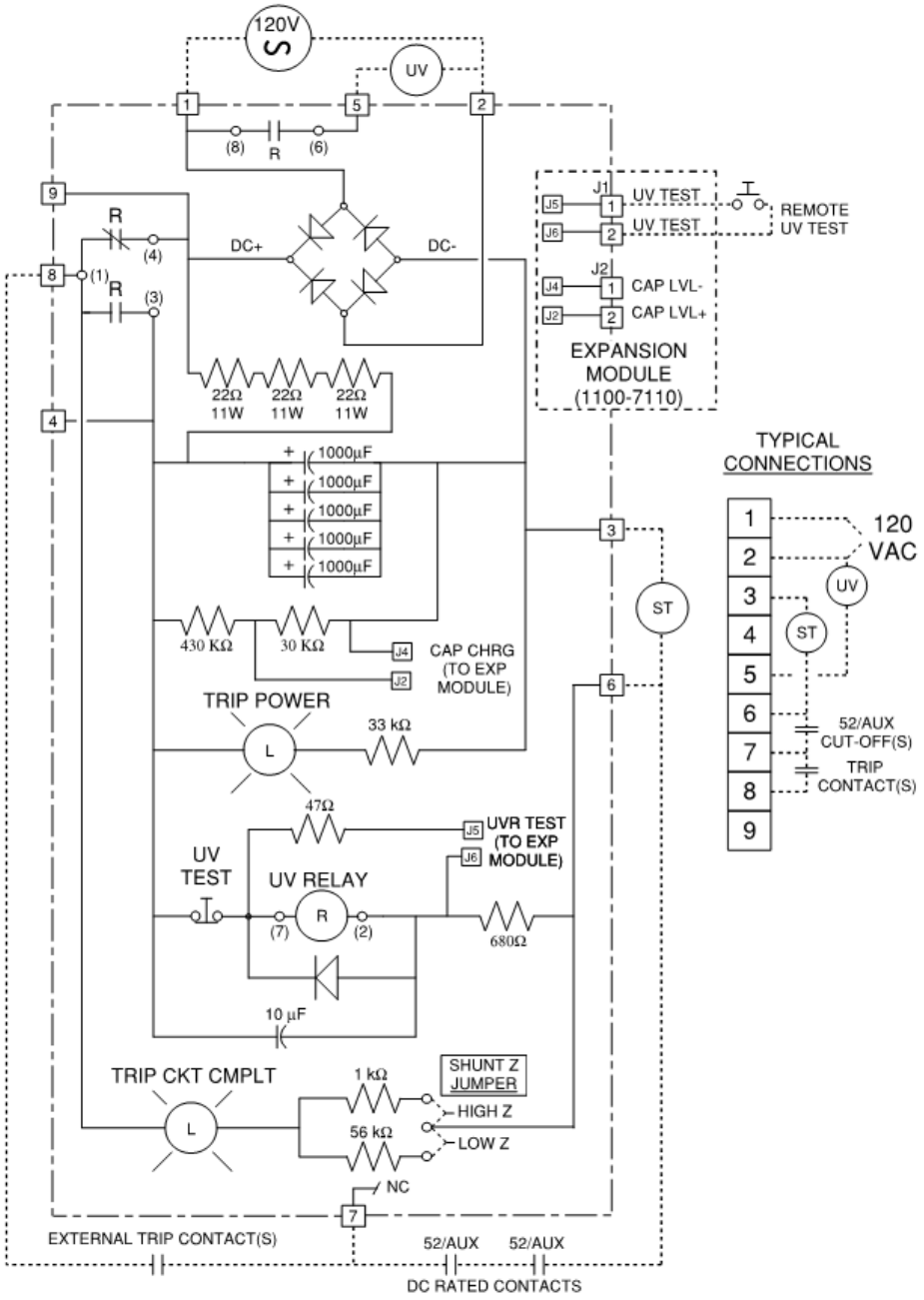
- 6000uF capacitor bank (86.7 Joules) for longer storage times.
- Trip Power lamp lights when capacitor bank is charged.
- Trip Circuit Complete lamp lights when the trip circuit is complete.
- UV Interlock feature prevents the breaker from being set when the capacitor bank is not charged.
- UV Test button to test system UVR operation.
- Modern, PCB-based design
- Includes IE Expansion Module (1100-7110). Allows remote monitoring of capacitor bank charge, and remote control of the UVR test function.
- Settable shunt impedance jumper for compatibility with shunt coils and high-impedance electronic trip circuits.

Product Views



Specifications:

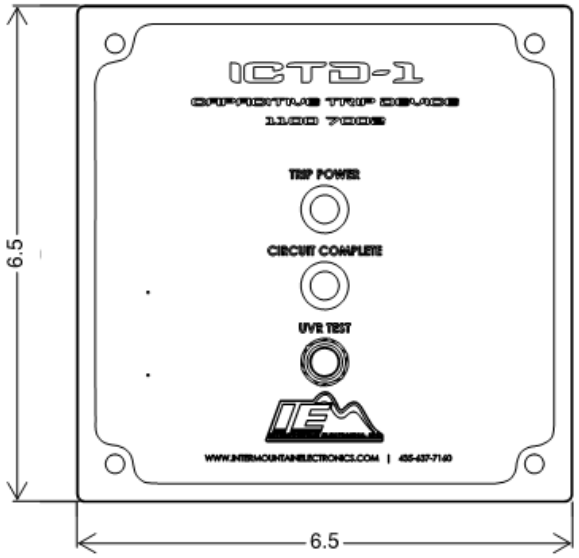
- Capacitor Charge Time: 1 Second
- Typical cap. storage time: 40 Seconds
  (Varies for different shunt coils/ circuits)
- Input voltage: 120 VAC
- Output voltage: 160 VDC
- "Shunt Z" jumper (on PCB):
  - Use "low-Z" setting for solenoid-type shunt coils
  - Use "high-Z" setting for electronic shunt circuits with high impedances (ex: VMAX breakers)
- Trip Contacts: 10A at 240 VAC Resistive

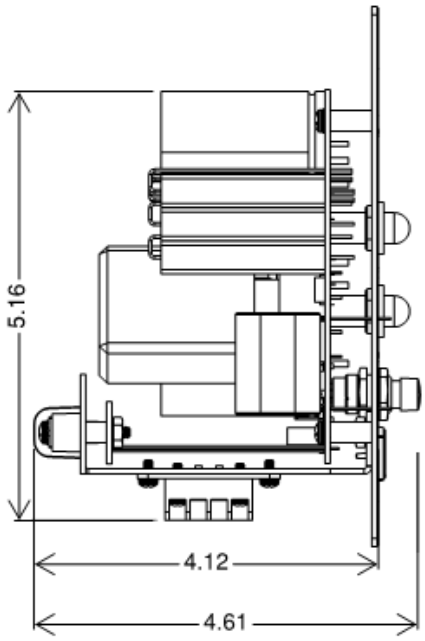


Notes:

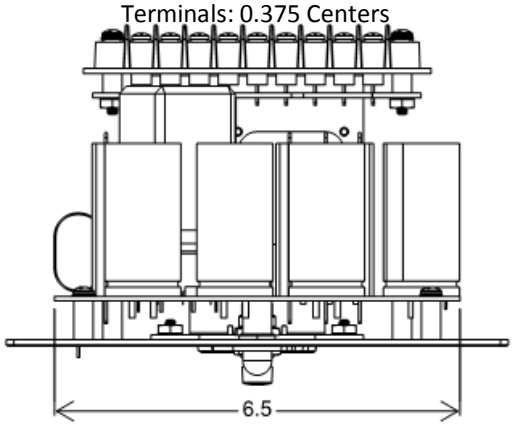
1) Breakers with electronic trip circuits (instead of simple coils) vary widely. Because of this, it is necessary to thoroughly test the ICTD-1/breaker combination to make sure the breaker trips and closes properly.
2) The "Shunt Z Jumper" should normally be placed in the "LOW Z" setting for breakers with typical shunt coils. However, in some breakers with high impedance shunt trip circuits (ex. VMAX breakers), the jumper should be set to "HIGH Z" to ensure that the Trip Circuit Complete lamp works properly, and to prevent possible nuisance trips.
3) The Cap Level monitoring output (on the Expansion Module) is designed for high-impedance (MΩs) input metering circuits. Lower impedance inputs will work, but the full scale reading will be reduced. With a high impedance input, full charge (150V) will read as 10V or more, but a 10 kΩ input impedance will result in a full charge reading of 2.6V.

Mechanical Characteristics

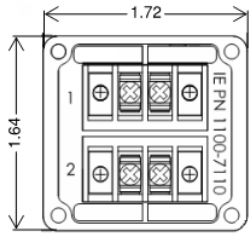




Terminals: 0.375 Centers

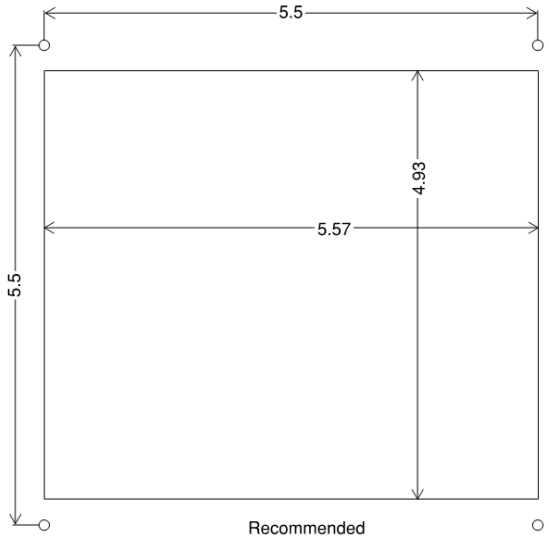


Terminals: 0.25 Centers



Expansion Module
1100-7110

Recommended Panel Cutout



Recommended
Mounting Holes: Tap
for 8-32 Screws