

# CTU Capacitor Trip Unit

## 1. Description

The CTU Capacitor Trip Unit is designed to operate the shunt trip coil of a circuit breaker in the event of a normal power loss. It also serves as a continuous DC power supply.

A range of AC supply input voltages are available. The DC output voltage is 140% of the input voltage at no load. The maximum current rating of the unit is 5 Amps for approximately one second duration. The normal recharge time is less than one minute.

A push button is used to discharge or test the condition of the capacitor and utilises an LED for visual discharge verification.

The unit is housed in a high impact polycarbonate enclosure.

## 2. Features

- ✓ Multi-function DC power supply/stored energy unit
- ✓ Suitable for shunt tripping circuit breakers
- ✓ Built in Test/Discharge function
- ✓ Various operating voltages

## 3. Application

The CTU Capacitor Trip Unit is usually installed in substations and operates the shunt trip coil during a loss of power supply to the transformers. This prevents transformers being automatically energised following restoration of the main power supply.

The Trip Unit can also be used to initiate alarms or provide standby excitation.

### 3.1 Continuous DC Supply

When used as a continuous DC supply the maximum load of the unit is not to be exceeded. A typical example is a load of 500mA for a 110V DC unit. This value load can be maintained continuously without undue heating due to the conservative operational level of the components.

Higher load currents up to 1 Amp can be tolerated for 5 minute duration.



## 3.2 Stored Energy

In this application, when the AC supply is removed (or power failure occurs); the isolated stored energy has sufficient capacity to trip an air circuit breaker multiple times within a 5 to 10 minute timeframe from the point of power failure.

## 4. Specifications

### Supply:

See parts list for details.

### DC Output Voltage:

140% of Input Voltage at no load

### Surge Current Rating:

5 Amps

### Recharge Time:

Maximum 60 Seconds

### Dimensions:

Enclosure: 170 H x 135 W x 120 D mm

Mounting Centres: 153 H x 118 W mm

## 5. Parts List

116491	Cap. Trip Unit 16VAC/24VDC
116580	Cap. Trip Unit 24VAC/32VDC
116529	Cap. Trip Unit 36VAC/48VDC
116492	Cap. Trip Unit 80VAC/110VDC
117545	Cap. Trip Unit 110VAC/155VDC
116722	Cap. Trip Unit 176VAC/250VDC
116724	Cap. Trip Unit 240VAC/48VDC
116723	Cap. Trip Unit 24VDC/24VDC