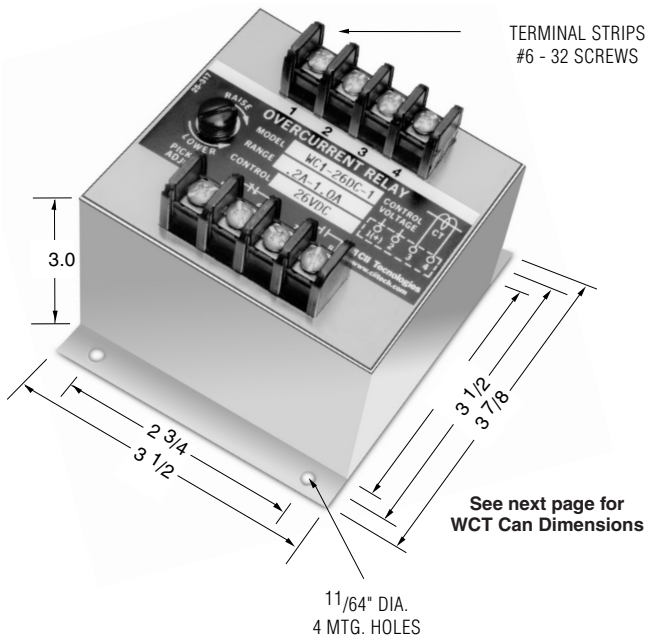
WC1 & WCT1 Series, Overcurrent

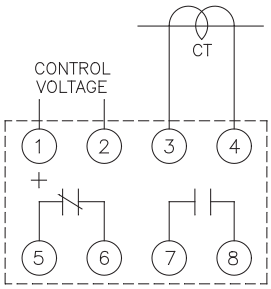
Product Facts

- **Function 50/51**
- **ANSI/IEEE C37.90-1978**
- **UL File No. E58048**
- **CSA File No. LR61158**

Current sensitive relays are available for single and three phase applications. Voltage controlled overcurrent relays protect generators against fault currents below the full rated value, when the fault produces a voltage drop as in the case of short circuits or grounds. Phase balance relays are available to sense and control unbalanced current flow in three phase systems. Current differential relays operate when the differential between two currents exceeds preset values. Over/under current phase-band relays are also available.



Note: Dimensions in inches. Multiply values by 25.4 for dimensions in mm.



Time Delay

Standard Time Delay (WC1 Series) — A fixed inverse time delay is incorporated in all overcurrent relays and is represented by the typical curves shown.

Adjustable Time Delay (WCT1 Series) — The time delay is field adjustable. The standard time delay can be increased by any value between 0.5 and 20 seconds.

Product Specifications

Line Current — Single Phase, AC current, 50-400 Hz Direct or from CT

Control Voltage — See Ordering Information

Trip Point — Screwdriver adjustable. Adjustment range in accordance with ordering information.

Pick-Up to Drop-Out Differential — Approximately 0.1 amp.

Overcurrent Allowance — Maximum of 500% for 0.25 seconds

Surge Withstand Capability — In compliance with C37.90B ANSI/IEEE

Operating Temperature — -40°C to +70°C

Temperature Drift — ± .05%

Burden — Current input — 1.2 VA, Control voltage — 2.5 VA

Contact Ratings — One set, N.O., One set N.C. 5 amp resistive at 120 VAC or 28 VDC

Notes:
1. Remove black screws for access to the current pick-up and the time delay adjustment.
2. Clockwise rotation of the pick-up adjustment will raise the current trip point.
3. Clockwise rotation of the time delay adjustment, (Type WCT1 only) will increase the time delay.

Ordering Information

Sample Part Number ▶ **WCT1 -48DC -5 -B**

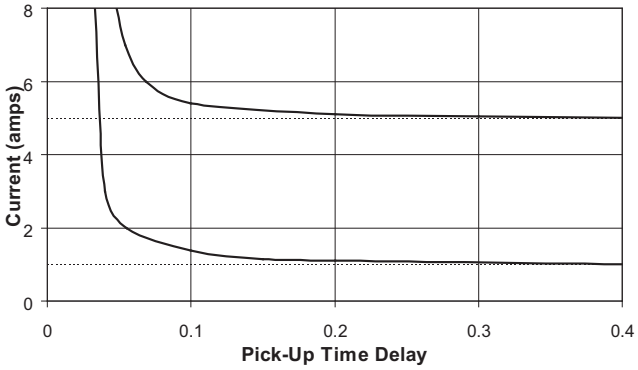
Type:
WC1 = Per Time Curves
WCT1 = Adjustable Time Delay

Control Voltage (± 15%)
26 DC
48 DC
125 AC
120 AC
230 AC
380 AC
460 AC

Trip Adjustment Range
1 = .2 amp - 1 amp
5 = 1 amp to 5 amp
10 = 2 amp to 10 amp

Other Options
A = Two normally open contacts
B = Two normally closed contacts

Typical Curves (WC1 Series)



See next page for 3-phase types and consult factory for additional models.

Catalog 5-1773450-5
Revised 3-13

www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified.

USA: +1 800 522 6752
Asia Pacific: +86 0 400 820 6015
UK: +44 800 267 666

For additional support numbers please visit www.te.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

WCT1-125DC-5 WCT1-460AC-5-A WCT1-120AC-5 WCT1-26DC-1A WCT1-120AC-5A WCT1-460AC-5 WCT1-26DC-1 WCT1-48DC-5