



## Features

- Rated current: 50 or 100 amps
- Revenue-grade: 0.3% accuracy
- Compact
- Low-cost
- Solid-core design
- Opening: 0.50 inch (12.8 mm)
- UL Listed (UL 2808, XOBA)

The TCL-B-100 solid-core current transformer provides revenue-grade accuracy with a 333.33 millivolt AC output.

**Table 1: Models**

| Model     | Rated Amps | Output      | Accuracy |
|-----------|------------|-------------|----------|
| TCL-B-100 | 100 A      | 0.33333 Vac | 0.3%     |
| TCL-B-050 | 50 A       | 0.33333 Vac | 0.3%     |

## 1 Specifications

- **Line Frequency:** 50 to 60 Hz
- **Maximum Continuous Primary Current:** 250 amps
- **Maximum Voltage:** 600 Vac
- **Overvoltage and Measurement Categories:** CAT III: 600 Vac
- **Lead Wire:** 2.4 m (8 feet), 18 AWG, 105°C, 600 V, twisted pair
- **Output:** Voltage output, integral burden resistor
  - **Output Voltage at Rated Amps:** 0.33333 Vac (one-third volt)
  - **Output Protection:** includes internal burden resistor

### 1.1 Accuracy

- **Output Accuracy (% of reading):**
  - **Accuracy:**  $\pm 0.3\%$  from 1% to 120% of rated current
  - **Phase angle:**
    - $\pm 0.15$  degrees (9 minutes) from 20% to 120% of rated current
    - $\pm 0.33$  degrees (20 minutes) from 1% to 20% of rated current
  - **IEEE C57.13 accuracy:** class 0.6  
(Note: the phase angle error is too large to meet the class 0.3 requirements)
  - **IEC 60044-1 accuracy:** class 0.5S

### 1.2 Regulatory

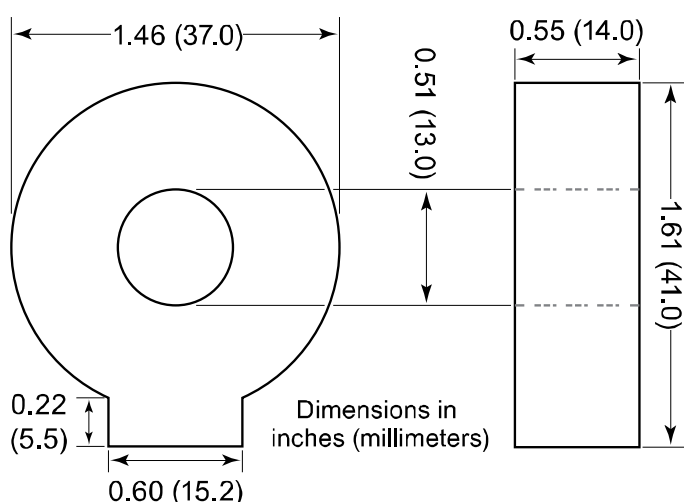
- **CE**
- **UL:** UL listed, XOBA, UL 2808, CAN/CSA-C22.2 No. 61010-1, E363660
- **RoHS Compliant**

### 1.3 Environmental

- **Operating Temperature:**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $185^{\circ}\text{F}$ )
- **Operating Humidity:** Non-condensing, 0 to 100% relative humidity (RH)
- **Operating Altitude:** Up to 3000m
- **Pollution:** POLLUTION DEGREE 2
- **Indoor Use:** Suitable for indoor use
- **Outdoor Use:** Suitable for outdoor use when mounted in a NEMA 3R or 4 (IP 66) rated enclosure, provided the ambient temperature will not exceed  $85^{\circ}\text{C}$  ( $185^{\circ}\text{F}$ )

### 1.4 Mechanical

- **Width:** 1.46 inches (37.0 mm  $\pm$  0.3 mm)
- **Height:** 1.61 inches (41.0 mm  $\pm$  0.3 mm)
- **Thickness:** 0.55 inches (14.0 mm  $\pm$  0.2 mm)
- **Opening:** 0.51 inches (13.0 mm  $\pm$  0.2 mm)
- **Weight:** 125 g



## 2 Typical Accuracy

In the following graphs, a positive phase angle error indicates that the output of the CT leads the primary current.

