



The TCL-B-100/40mA solid-core current transformer provides revenue-grade accuracy with a 40 mA output.

Features

- Rated current: 100 amps
- Revenue-grade: 0.2% accuracy
- Compact
- Low-cost
- Solid-core design
- Opening: 0.50 inch (12.8 mm)
- UL Listed (UL 2808, XOBA)

Links

- https://ctsys.com/category/current_transformer/
- <https://ctsys.com/product/tcl-b-ct/>

Table 1: Models

Model	Rated Amps	Output	Accuracy
TCL-B-100/40mA	100 A	40 mA	0.2%

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:** Current output
 - **Turns Ratio:** 2500 turns
 - **Output Current:** 40 mA at 100 A primary current
 - **Output Protection:** includes internal clamp Zener at 13 Vac

1.1 Accuracy

- **Output Accuracy (% of reading):**
 - **Accuracy:** $\pm 0.2\%$ from 1% to 120% of rated current
 - **Phase angle:**
 - ± 0.15 degrees (9 minutes) from 20% to 120% of rated current
 - ± 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 and IEC 61869-2 accuracy:** class 0.2

1.2 Regulatory

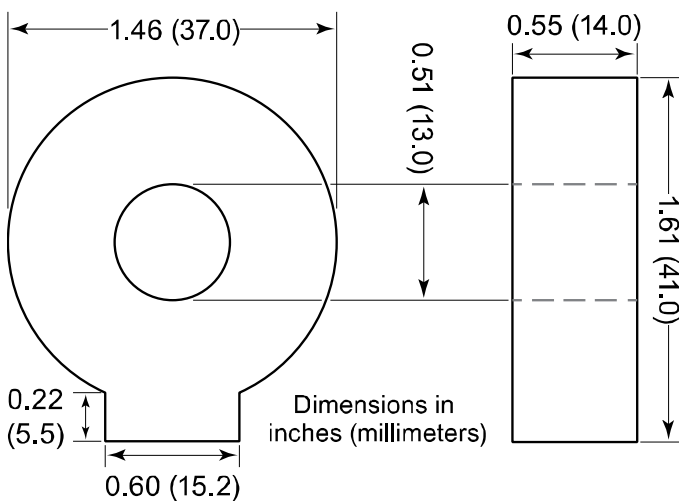
- **CE**
- **UL:** UL listed, XOBA, UL 2808, CAN/CSA-C22.2 No. 61010-1, E363660
- **RoHS Compliant**

1.3 Environmental

- **Operating Temperature:** -40°C to $+85^{\circ}\text{C}$ (-40°F to 185°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°C (185°F)

1.4 Mechanical

- **Width:** 1.46 inches ($37.0\text{ mm} \pm 0.3\text{ mm}$)
- **Height:** 1.61 inches ($41.0\text{ mm} \pm 0.3\text{ mm}$)
- **Thickness:** 0.55 inches ($14.0\text{ mm} \pm 0.2\text{ mm}$)
- **Opening:** 0.51 inches ($13.0\text{ mm} \pm 0.2\text{ mm}$)
- **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.

