



I. Functions and characteristics

All of our current transformers (CTs) have been designed with care to provide accuracy and consistency, in conjunction with our Omnimeter line of kWh meters, for a wide variety of users and use cases.

II. Technical Specifications

- Model: BCT-007-100UL
- Type: Solid Core
- Rated Input: 0.01-100 Amps
- Inside Diameter: 7mm
- Outside Diameter: 23mm
- Output: 26.6mA
- Accuracy: $\pm 0.1\%$ accurate. When used in conjunction with our Omnimeters, the installation will have an accuracy of $\pm 0.5\%$.
- Leads: 6 feet, 24AWG, UL10155
- Internal windings: 3750
- The arrow points towards the load.
- Frequency: 50–400Hz
- Operating Temperature: -40°F – 158°F
- Storage Temperature: -49°F – 185°F
- The arrow points towards the load.
- ANSI C57.13 and IEC60044-1 Standards
- Approved for UL and cUL installations when used in conjunction with our UL and cUL Listed Omnimeters.

III. How to Choose CTs

When choosing current transformers, you should consider four factors:

- How many CTs do I need for my electrical system?
 - Use 1 CT for 120 volt (or foreign 2-wire systems).
 - Use 2 CTs for a 120/240V three-wire system (two hots and a neutral, with or without ground).
 - Use 2 CTs for 3-phase 3-wire systems (3 hots and no neutral).
 - Use 3 CTs for 3-phase 4-wire systems (3 hots and a neutral).
- What is the wire diameter that needs to pass through the CT?
- What is the maximum amperage of the system being metered?
- Do you want CTs that open (split core), or are closed (solid core)?

IV. Installation

1. Install in a protected environment or enclosure.
2. We recommend that you do not lengthen the CT leads as this may decrease accuracy.
3. We recommend that you install this current transformer while the AC circuit is powered down.
4. Slip the CT ring around the wire that is to be measured, with the arrow pointing towards the load.
5. Connect the two wire leads to the appropriate terminals on the meter.
6. Do not open circuit the CT leads while the primary AC circuit is energized.
7. If the primary AC circuit is energized while the CT leads are not connected to the meter, short the leads (join the two ends) to avoid potentially damaging the CT.

