



### 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

- 1.) Solid Core
- 2.) Rated Input: 0-200 Amps AC
- 3.) Inside Diameter: 13mm
- 4.) Outside Diameter: 36mm
- 5.) Output: 26.6mA
- 6.) Accuracy:  $\pm 0.1\%$  accurate. When used in conjunction with our
- 7.) Omnimeters, the installation will have an accuracy of  $\pm 0.5\%$ .
- 8.) Leads: 22AWG, UL10155
- 9.) Internal windings: 7518
- 10.) Leads: 6 feet
- 11.) The arrow sticker points towards the load.
- 12.) Approved for UL and cUL installations when used in conjunction with our UL and cUL Listed Omnimeters.

### III. Testing

1.) Measuring instruments: HESE, FLUKE 45, TH2818

2.)

Model: BCT-013-200A/26.6mA	Input	2%	5%	10%	20%	50%	80%	100%	120%
	Accuracy f(%)	0.007	0.009	0.01	0.009	0.006	0.005	0.004	0.004
Load Resistance: 5 Ohm	Phase Angle $\Theta$ (arc minutes)	1.04	1.48	1.64	1.64	1.71	1.34	1.40	1.13

### IV. 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)?

### V. 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 circuit is powered down.
- 4.) Slip the CT ring around the wire that is to be measured with the arrow facing towards the load.
- 5.) Connect the two wire leads to the appropriate terminals on your meter.
- 6.) Do not open circuit the CT secondary while the primary is energized.
- 7.) If the primary is energized while the CT is not connected to a meter, short the wire leads(join the two ends) to avoid damaging the CT.