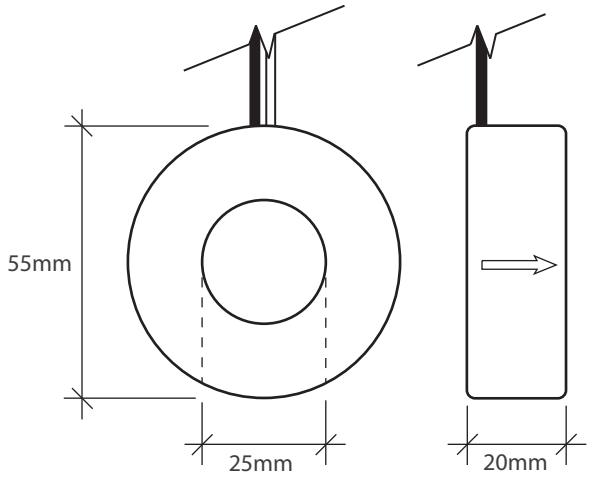
EKM METERING INC.

BCT-25-400 Current Transformer Spec Sheet



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: 0-400 Amps AC
3.) Inside Diameter: 25mm
4.) Outside Diameter: 55mm
5.) Output: 26.6mA
6.) Accuracy: ± 0.1% accurate. When used in conjunction with our
7.) Omnimeters, the installation will have an accuracy of ± 0.5%.
8.) Leads: 22AWG, UL10155
9.) Internal windings: 15037
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-025-400A/26.6mA	Input	2%	5%	10%	20%	50%	80%	100%	120%
	Accuracy f(%)	0.012	0.008	0.004	0.003	0.004	0.006	0.007	0.006
Load Resistance: 5 Ohm	Phase Angle Θ (arc minutes)	1.72	1.85	1.57	1.20	0.90	0.90	0.51	0.28

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.