

Low Cost Clamp-on Current Transformers

The LCTC0250 Series of low cost clamp-on style current transformers are designed for fast and easy installation. The clamp-on core design permits non-contact current measurements through magnetic field induction without requiring that the primary wire be taken offline and disconnected for CT installation. This method permits a safer, easier and portable AC current measurement.

Features:

- Clamp-on core design provides for safer and easier installation, portable use.
- Core material: - Nanocrystalline.

Applications:

The low cost clamp-on current transformer offers the accuracy and minimal phase shift required by current measurement and electric power quality measurement applications.

Specifications:

- Frequency: 50 Hz to 400Hz.
- Maximum Operating Voltage: 600VAC.
- Dielectric Withstand Voltage: 2,500 V_{RMS} for 1 minute.
- Dielectric Resistance: 1,000 M Ohm @ 500 VDC.
- Secondary Burden Resistance:
 - Current output: < 10 Ohms
 - Voltage output: ≥ 100K Ohm
- Operating Temperature: -25°C to +70°C.
- Construction:
 - Fe Nanocrystalline core material.
 - Case material: PBT, UL 94 V-0 rated



- Leads: 0.61m (2Ft), AWM 1015, 0.34mm² (22AWG), 600V.
- Lead Termination: Stripped and tinned.
Optional: 3.5mm straight, stereo termination connector.
- CAT II
- RoHS Compliant.



Performance:

- Accuracy Class: 1.0 (IEC 60044-1)
- Phase shift error: ≤ 2° @ 50% of rated current
- Linearity: ±1%

Standard Models:

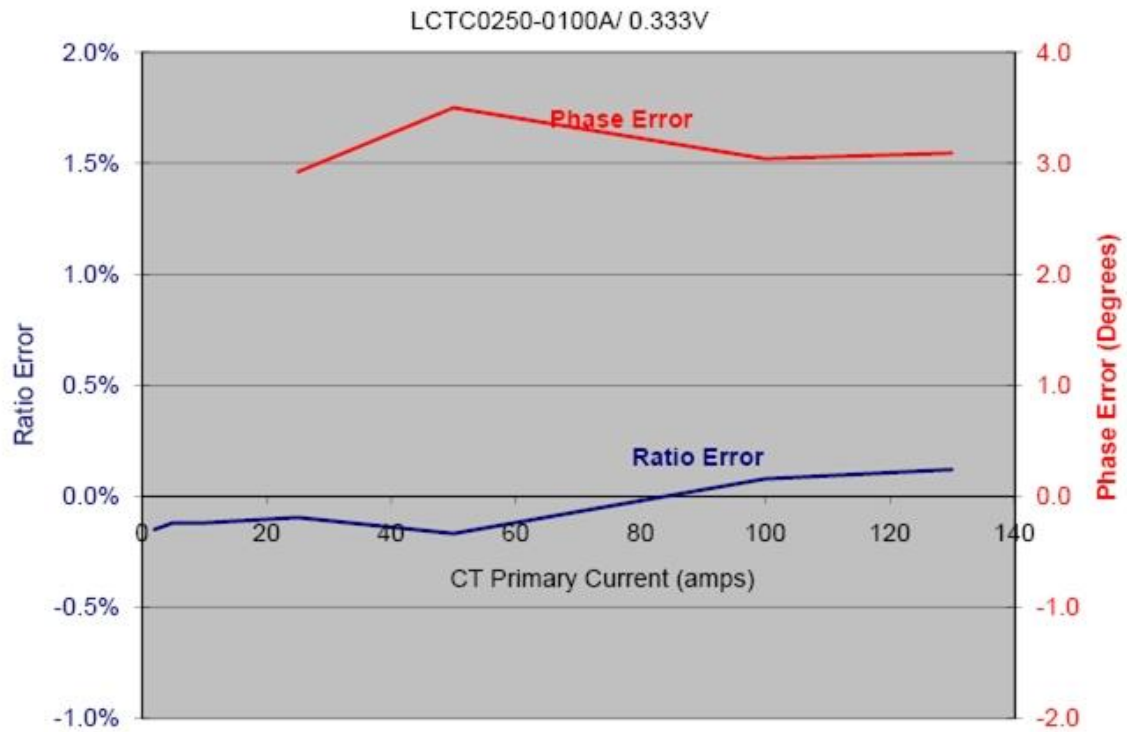
Part Number	Rated (Amp)	Max (Amp)	ID (mm)	Accuracy Class	Linearity Range	Burden impedance
LCTC0250-010A/ 5mA	10A	20A	Φ25	1.0	5%-200% of rated current	≤20Ω
LCTC0250-020A/10mA	20A	40A	Φ25	1.0	5%-200% of rated current	≤20Ω
LCTC0250-050A/20mA	50A	100A	Φ25	1.0	5%-200% of rated current	≤20Ω
LCTC0250-080A/ 40mA	80A	120A	Φ25	1.0	5%-150% of rated current	≤10Ω
LCTC0250-100A/ 40mA	100A	120A	Φ25	1.0	5%-120% of rated current	≤10Ω
LCTC0250-150A/40mA	150A	180A	Φ25	1.0	5%-120% of rated current	≤10Ω
LCTC0250-50A/0.333V	50A	120A	Φ25	1.0	5%-120% of rated current	
LCTC0250-80A/0.333V	80A	120A	Φ25	1.0	5%-120% of rated current	
LCTC0250-100A/0.333V	100A	200A	Φ25	1.0	5%-120% of rated current	
LCTC0250-150A/0.333V	150A	200A	Φ25	1.0	5%-120% of rated current	

NOTES: “Max” is the highest continuous current that the current transformer can handle without suffering permanent damage.

“Accuracy Class” as defined in International Standard IEC 60044-1 “Instrument Transformers Part 1: Current Transformers”

Application Notes are available by contacting Application Engineering at engineering@tichenassociates.com or at the address below.

Typical Performance:



Outline Drawing and Dimension

