

Standards: Meramec can engineer and design to any national or international standard as well as customer specifications. Some of the more recognizable standards we currently have on file are:

Country	Standard	Release	Title
USA	IEEE C57.13	2008	Standard Requirements for Instrument Transformers
	IEEE C57.13.6	2005	Standard for High-Accuracy Instrument Transformers
	ANSI C12.11	2007	Instrument Transformers for Revenue Metering, 10kV BIL through 350kV BIL
International Standard	IEC 60044-1	2003	Instrument Transformers – Part 1: Current Transformers
	IEC 60044-6	1992	Instrument Transformers – Part 6: Requirements for Protective Current Transformers for Transient Response
Canada	CAN/CSA C-60044-1	2007	Instrument Transformers – Part 1: Current Transformers
	S-E-07	2008	Specification for the Approval of Measuring Instrument Transformers (Measurement Canada)
	CAN/CSA C-60044-6	2007	Instrument Transformers – Part 6: Requirements for Protective Current Transformers for Transient Response
Australia	AS 60044-1	2007	Instrument Transformers – Part 1: Current Transformers
United Kingdom	BS 60044-1	2003	Instrument Transformers – Part 1: Current Transformers
	BS 60044-6	1999	Instrument Transformers – Part 6: Requirements for Protective Current Transformers for Transient Response
Brazil	NBR 6856	1992	Current Transformers
Russia	GOST 7746	2001	Current Transformers – General Specification
Japan	JIS C 1731-1	2008	Instrument Transformers for Testing Purpose and used with General Instrument, Part 1: Current Transformers
	JIS C 1736	2003	Instrument Transformers for Metering Service
	JEC 1201	1985	Instrument Transformers for Protective Relays

We also have an extensive file of obsolete standards. It is Meramec's policy to work to the most recent published standard. We can work to older obsolete standards if necessary, especially in the case for replacement of existing designs.

Capabilities

- The ability to perform direct accuracy testing at power frequency of 50 or 60 Hz.
- Standard IEEE & CSA burdens for 5 Amp secondary currents, B0.1 thru B8.0.
- Standard IEC burdens for 5 & 1 Amp secondary currents, 2.5 thru 30 VA.
- Precise current comparator with standard CT traceable to NIST ($\pm 0.01\%$ RE / ± 0.3 minute PA).
- 4 terminal bridge for measuring DC resistance.

Testing

Prior to shipping, every unit is 100% tested and inspected in accordance with the standard and customer specification it is designed and manufactured to. All test systems and instrumentation are calibrated annually by a third party calibration service. Routine tests performed on each unit include:

- Polarity marking verification
- Turns verification, full winding and between taps (if provided)
- Applied dielectric tests (as required)
- Induced dielectric tests at 400 Hz
- Measurement of secondary excitation characteristic (for relaying & protection)
- Measurement of Ratio Error & Phase Angle Error (for revenue metering & measuring)
- Secondary winding resistance (when required)

All test measurements are recorded for each unit by serial number and are kept on file. We can provide Certified Test Reports and Certificate of Compliance upon request.

Engineering Support

Secondary excitation curves plotted on log-log ordinate, over-current RCF curves plotted up to 100X rated current for protection, and RCF/PA curves plotted from 1% thru RF for metering performance are provided for each design. Outline drawings can also be furnished upon request.