



KCTS-8000 current transformer testing system



description

The Knopp Current Transformer Testing System (Type KCTS-8000) is designed to measure the accuracy of instrument transformers having 1 or 5 ampere secondaries and primaries of up to 8000 amperes. The system uses a high accuracy multi-range current transformer as a reference standard. All ANSI standard burdens are included. The phase angle and ratio errors of the transformer-under-test (TUT) are measured by the built-in Knopp Automatic Transformer Comparator.

Standard features of the KCTS include:

- AUTOMATIC and AUTORANGING Type KATC-C1 Current Transformer Comparator provides minimum measurement time (typically within three seconds after adjustment of test current).
- DIGITAL DISPLAY of test current, ratio error (in Percent or Ratio Correction Factor), phase angle error (in Minutes or Milliradians), and Accuracy Class of the TUT.
- SELF CHECK feature allows the KCTS system accuracy to be easily verified without the use of an external reference standard.
- PROTECTIVE CIRCUITRY senses error conditions, such as wrong ratio or wrong polarity, and then removes power from the KCTS loading circuitry.
- ZERO START feature requires that both coarse and fine test current controls be at zero before power can be applied to the loading circuitry (and thus the TUT).
- MOTORIZED CONTROL of the test current is provided to minimize test time. This allows AUTOMATIC RUNDOWN of the test current after the test is complete.
- SERIAL (RS-232C) output port to allow transfer of test results to a printer or data collection system.
- CONNECTION KIT which includes cables to facilitate connection of most instrument transformers to the KCTS terminals.
- ANSI BURDENS 0.04 through 8 (see list of included burdens) and good down to Accuracy class 0.15 Testing.
- DEMAGNETIZATION of Transformers prior to test.

operation

Demagnetize transformer prior to test. The desired ANSI burden is selected by a rotary switch, while the required primary range is selected by a rotary switch in combination with the use of the appropriate test terminals on the KCTS. After the TUT is connected, and the test current adjusted, the HOLD push-button on the Comparator is pressed. This holds the test results on the Comparator display while the motorized test current control is automatically returned to zero. After the test results are recorded or printed, RESET is pressed to prepare the system for the next test.

specifications

dimensions:	45" (114 cm) High, 55.5" (141 cm) Wide, 35" (89 cm) Deep
weight:	1330 lbs. (603 kg)
input power:	208 or 240 VAC (specify at time of order), single phase, 60 Hz, at 200 amperes maximum. And a separate 120 VAC source at 5 amperes.
system accuracy:	Within $\pm 0.025\%$ on ratio and ± 2 minutes on phase angle at 1.2, or less, accuracy class
test current ranges:	5, 10, 15, 20, 25, 30, 40, 50, 60, 75, 80, 100, 120, 125, 150, 160, 200, 250, 300, 400, 500, 600, 750, 800, 1000, 1200, 1500, 1800, 2000, 2500, 3000, 4000, 5000, 6000, 7500, and 8000 amperes 400% tests shall be able to be performed on all ranges up to, and including 2000 amperes. 200% tests shall be able to be performed on all ranges up to, and including, 4000 amperes.
Included ANSI burdens:	E-0.04 (extended range), E-0.2 (extended range), B-0.1, B-0.2, B-0.5, B-0.9, B-1.8
Relaying burdens:	B-1, B-2, B-4, B-8 Burdens up to B-1.8 are rated for 400% tests while the remaining burdens (B-2, B-4, B-8) are rated for 200% tests. Provisions are made for use of an external burden.

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