

Knopp

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 5 ampere secondaries and primaries of up to 8000 amperes. When purchased with the optional Type KATC-C1 Comparator, the KCTS is capable of testing transformers with 1 or 5 ampere secondaries. The system uses a high accuracy multirange 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-C 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 also allows AUTOMATIC RUNDOWN of the test current after the test is complete.

Options include:

- TYPE KATC-C1 Comparator.
- SERIAL (RS-232C) output port to allow transfer of test results to a printer or computer (RS-232C is standard on KATC-C1).
- CONNECTION KIT which includes cables to facilitate connection of most instrument transformers to the KCTS terminals.

operation

The desired ANSI burden is selected by a rotary switch, while the required primary range is selected by a rotary switch in combination with 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 in. (114 cm) High, 55.5 in. (141 cm) Wide, 35 in. (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 120VAC 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 can be performed up to 2000 amperes and 200% tests up to 4000 amperes.
burdens:	ANSI B-0.1, B-0.2, B-0.5, B-0.9, B-1, B-1.8, B-2, B-4 and 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.

Knopp

1307 – 66th Street
Emeryville, CA 94608
USA

(510) 653-1661
(800) 227-1848 (Toll-Free)
(510) 653-2202 (FAX)
sales@knoppinc.com (Email)
www.knoppinc.com

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