



KC-1500 current transformer testing system



description

The Knopp Type KC-1500 Current Transformer Testing System is designed to measure the accuracy of instrument transformers having 1 and 5 ampere secondaries and primaries of up to 1500 amperes. The KC-1500 is capable of testing transformers with 1 or 5 ampere secondaries. The system uses a high accuracy multi-range current transformer as a reference standard.

The system is well suited for utilities whose current transformer testing needs include primary currents up to and including 1500 amperes. The phase angle and ratio errors of the transformer-under-test (TUT) are measured by the built-in Knopp Automatic Transformer Comparator.

Some of the standard features of the KC-1500 are:

- 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), and phase angle error (in Minutes or Milliradians).
- ACCURACY CLASS for which the TUT qualifies is digitally calculated and displayed.
- SELF CHECK feature allows the KC-1500 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 removes power from the KC-1500 loading circuitry.
- ZERO START feature requires that the test current control be at zero before power can be applied to the loading circuitry (and thus the TUT).
- STANDARD ANSI BURDENS include B-0.1/B-0.2/ B-0.5/B-0.9/B-1/B-1.8
- PORTABILITY means the system can easily be transported to a field testing location.
- SERIAL (RS-232C) output port to allow transfer of test results to a printer or computer.
- 120 VOLT OPERATION allows the use of readily available power sources in the lab or the shop
- CONNECTION KIT which includes cables to facilitate connection of most instrument transformers to the KC-1500 terminals.

options include:

- Additional ANSI BURDENS for relay testing and other purposes are also available including 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.

operation

The desired ANSI burden is connected to the test system. The required primary range is selected by a rotary switch in combination with the use of the appropriate test terminals on the KC-1500. After the TUT is connected, and the test current adjusted, the HOLD push-button on the Comparator is pressed. This holds the results on the Comparator display while the operator returns the test current to zero. After the test results are recorded or printed, RESET is pressed to prepare the system for the next test.

specifications

dimensions:	Console 1: 65" (16.5 cm) High, 30.3" (77.0 cm) Wide, 16.0" (40.6 cm) Deep
	Console 2: 9.5" (24.1 cm) High, 28.2" (71.6 cm) Wide, 24.7" (62.7 cm) Deep
weight:	Console 1: 55 pounds (24.9 kg) Console 2: 95 pounds (43.1 kg)
note:	Weight does not include Burden sets or Hardware and cable connection kit
input power:	120 VAC, single phase, 60 Hz, at 15 amperes maximum
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, 75, 100, 150, 200, 300, 400, 500, 600, 800, 1000, 1200, and 1500 amperes
	400% tests can be performed up to 300 amperes and 200% tests up to 600 amperes.

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