



precision multirange current transformers

TYPE P-5000 & TYPE P-12000



introduction

This Type P-5000 transformer is a laboratory standard. The unit's excellent accuracy and the Knopp One-to-One calibrating feature make this precision transformer well-suited as a standard for calibration work. This transformer can provide a very accurate determination of the ratio and phase angle characteristics of current instrument transformers having ratios from 5 to 5,000 amperes. This transformer also can accurately extend the range of a 5 ampere ammeter or wattmeter to cover all current values up to 5,000 amperes.

primary ranges

The P-5000 provides eight self-contained primary ranges from 5 to 100 amperes. These ranges are brought out to binding posts on the top of the transformer. A 240 turn secondary is provided for use with these primary taps; other secondary taps are provided for other ranges as described below. Ranges above 100 amperes are obtained by passing a primary conductor through the transformer window. Various primary ranges are obtainable by varying the number of through-turns and choosing from among the available secondary taps. These ranges are: 125, 150, 200, 240, 250, 300, 375, 400, 500, 600, 625, 750, 800, 1000, 1200, 1250, 1500, 2000, 2500, 3000, 4000, and 5000A.

burden and accuracy

The Type P-5000 Transformer, like other Knopp Precision Multirange Transformers, has excellent ratio and phase angle characteristics with respect to both inter-range accuracy and overall accuracy. This is made possible through a properly engineered design and through exclusive, highly perfected compensating and winding methods.

The transformer is designed and compensated for the highest possible accuracy at the burden specified by the purchaser, but also may be used with excellent results with other burdens up to 25 volt-amperes. When used with the burden for which compensated, the ratio of this transformer standard is well within $\pm .02\%$ and the phase angle is well within 2 minutes on all ranges.

calibration

A Report of Calibration, traceable to the National Institute of Standards and Technology (NIST) is included with the transformer.

We recommend that the accuracy of the transformer be checked by a certified laboratory every five (5) years. Additionally, the One-to-One accuracy of the transformer can be checked when desired by comparing the 5 ampere primary tap to the 5 ampere (240 turn) secondary. Any reliable error-measuring instrument can be used for this purpose. One-to-One data will be included with this transformer when shipped.

rating and insulation

All windings are rated at 100% continuous current. Current up to 200% can be applied on a 25% duty-cycle basis in which the "ON" period does not exceed 30 minutes.

The transformer housing insulates the inserted primary from the secondary and primary windings for up to 2500 volts. The wound primary is for use on circuits not exceeding 250 volts.

specifications

dimensions: The approximate overall dimensions of the Type P-5000 are 11.5" (29.2 cm) wide, 4.5" (11.4 cm) deep, and 13.875" (35.2 cm) high.

weight: The net weight of the Type P-5000 is approximately 32.5 pounds (14.7 kg) and the shipping weight is approximately 50 pounds (22.7 kg).

Type P-12000

The Type P-12000 Precision Multi-Range Current Transformer has the following taps:

2000 Amps, 3000 Amps, 4000 Amps, 5000 Amps, 6000 Amps, 7000 Amps, 7500 Amps, 8000 Amps, 9000 Amps, 10,000 Amps, And 12,000 Amps

Dimensions: The approximate overall dimensions of the Type P-12000 are 15" wide, 4.75" deep, and 15" (35.2 cm) high

Weight: The net weight of the Type P-12000 is approximately 35 pounds (14.7 kg) and the shipping weight is approximately 50 pounds (22.7 kg)

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