

Model BA-185

Current Transformer Burden Ammeter



- Rugged
- Portable
- Multirange ammeter with switch-selected burdens

DESCRIPTION

The BA-185 Current Transformer Burden Ammeter is a rugged, portable instrument, designed to field-test current transformer installations for:

- short-circuited secondary turns
- short-circuited primary turns
- short-circuited secondary wiring
- high-resistance connections in the secondary circuit
- grounding of secondary winding when mounted on a grounded structure
- grounding of a normally ungrounded wire

APPLICATIONS

Within the accuracy limits of the CT, a good current transformer should not have a noticeable change in ratio when a secondary burden is added. This is because the primary effect of additional burden on a good CT is a rise in the secondary voltage.

However, if one or more turns of a CT are shorted, a substantial amount of the total available ampere-turns is diverted into the shunt path created by the short. Thus, the current to the circuit connected to the CT is less than the CT's total secondary current.

Therefore, when the proper burden within the ammeter is added in series with the circuit connected to a good CT, the current indicated by the ammeter should only decrease a few percent.

However, in a bad CT, the additional burden will cause even more current to be diverted into the shorted turn(s). This will cause the current indicated on the ammeter to decrease significantly. This sudden and large decrease in the ammeter reading will be seen immediately whenever the burden is added by using the switch.

FEATURES AND BENEFITS

- Multirange ammeter incorporating switch-selected burdens
- The burdens are normally shorted out, but can be put in series with the ammeter by a spring-loaded momentary switch
- Designed to ensure that the secondary of the CT under test will not be accidentally opened; make-before-break construction used for ammeter range and burden selector switches
- The instrument is housed in a rugged, molded-plastic case. All leads extend away from the user to prevent contact with live components.
- Optional carrying case available

SPECIFICATIONS

Ammeter

An easy-to-read, 2.5-in. (64-mm) instrument with uniformly spaced divisions, the ammeter features a rugged, clear plastic cover for excellent visibility.

Ammeter Ranges

The ammeter has switch-selected ranges (as shown in the chart). Normally, each range is double the preceding one; a half-scale reading on any range will be a full-scale reading on the next lowest range. Therefore, even with wide variations in load currents, a range can be selected that will give at least half-scale deflection. This makes it easy to determine small changes in current.

Burdens

Lower burdens are usually employed when testing the low-capacity CTs used in metering or low-voltage installations. The burden ammeter incorporates switch-selected resistance burdens. (For values, refer to chart). The switch is spring-loaded so that once the test is completed and the switch is released, it will automatically remove the burden from the circuit.

Duty Cycle

The burdens listed in the chart are purely resistive and their VA ratings represent the actual watts dissipated in the instrument. The burden resistors are rated for a short-duty cycle. To prevent damage to the resistors, the burden should only be switched into the circuit long enough to observe any changes in the ammeter readings.

Dimensions

6.9 H x 5.25 W x 3.1 D in. (175 H x 133 W x 79 D mm)

Weight

2.4 lb (1.1 kg)

| Model BA-185 | |
|---|----------------------------|
| Ammeter Ranges (amperes) | 1.25, 2.5, 5 and 10 |
| Burdens (ohms) | 0.25, 0.5, 1, 2 and 4 |
| Burden Ratings (VA at a nominal current of 5 amperes) | 6.25, 12.5, 25, 50 and 100 |

ORDERING INFORMATION

| Item (Qty) | Cat. No. |
|-----------------------------|-----------------|
| Model BA-185 | BA-185 |
| Included Accessories | |
| Leads, 5 ft [1.5 m] (1 pr) | 7934 |
| Instruction manual | 10629 |
| Optional Accessory | |
| Carrying case | CC-3 |