



SIVA INSTRUMENTS

Transformer Winding Resistance Meter

Model : TWRM-10A uP



An ISO 9001:2000 COMPANY



Introduction

Transformer Winding Resistance Meter is designed to measure the winding resistance of transformers, Inductors, generators and motor windings, Tap Changers Etc.

It is specially designed for Highly Inductive objects like 400KV/220KV. Special care is taken for measuring 3 phase transformers by using band switch matrix, to avoid climbing on transformers for safe & measurements. This is only indigenous TWRM which gives very fast readings for 3Phase Star-Delta any combination Transformers. The built in open circuit Voltage of DC Supply ensures that core of the transformer is saturated for fast measurements to be taken. Care is taken to absorb the Back emf of such transformers. For user safety, Indication for discharges is provided on front panel, if the current through winding under measurement is disturbed/discontinued.

Instrument has built in 10A regulated and highly stable current source with current selection of 10Amp, 1Amp, 0.1Amp & 0.01Amp.

Instrument uses ratio-metric circuit where the resistance of specimen is compared with known internal standard and 4 ½ digit LED/LCD display is provided for resistance measurement in milliohms and in ohms.

Features

- Easy & Fast switching for 3 phase to avoid changing Primary-Secondary, Band switch is provided on front panel.
- Regulated and highly stable 36Volt 10 Amp, 1Amp, 0.1Amp & 0.01Amp current source.
- 4½ digit LED/LCD display dual channel.
- Simultaneous measurements of voltage & current.
- True four terminal measurement.
- Resolution of 0.1 micro ohm
- Protection against inductive kickback and discharge.
- Visual indication for discharge.
- Line voltage interference suppression, making instrument most suitable for field applications.
- Light weight with carrying case & with 10 meter leads.
- Inbuilt Printer, RS232 port, Data acquisition software Windows Based.
- Automatic Discharge.
- Thermally Protected Power Supply.

Specifications

POWER SUPPLY	230V AC, 50Hz, single phase.
RANGES	1u ohm to 500 ohms in 6 Ranges
INDICATION	4 ½ Digital panel meter LED & LCD Dual Channel (5 Decades i.e.20000 count)
RESOLUTION	0.1 micro ohm on 2 milli ohm range
ACCURACY	1-20 micro ohm $\pm 0.5\%$ 20-1000 milliohm $\pm 1.0\%$ 1-500 ohm $\pm 2 \%$.
DC POWER SUPPLY	36Volt/10Amp
TEST CURRENT RANGE	10Amp (auto range selection)
PORTS	RS232 Port, Inbuilt 2.5 Inch Thermal printer,
DATA ACQUISITION SOFTWARE	Windows Based.
MEMORY	45 Records (45 Readings per record)
CONTROLS	Power On Switch. Current Range selection switch. Matrix Switching for winding selection.
DIMENSIONS	L=440x B=350x H= 150mm ± 10 mm
WEIGHT	Approx. 15Kg

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