

# Sivananda Electronics

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TRANSFORMER WINDING RESISTANCE METER
TWRM-10A uP

#### Introduction

Transformer Winding Resistance Meter is designed to measure the winding resistance of transformers, Inductors, generators and motor windings, Tap Changers Bus Bar contacts, Power cables etc.

It is specially designed for Highly Inductive objects like 400KV/220KV. 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, 5Amp, 1Amp & 0.1Amp, 0.01 Amp

Instrument uses ratio-metric circuit where the resistance of specimen is compared with known internal standard and 4  $\frac{1}{2}$  digit LCD display is provided for resistance and current measurement in  $\mu E$ , mE & E.

### **Features**

- Regulated and highly stable 50Volt 10 Amp, 5Amp, 1Amp & 0.1Amp, 0.01A current source.
- 4 Line LCD display.
- 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 15 meter leads.
- Automatic Discharge.
- Thermally Protected Power Supply.
- Facility to select current 5Amp at 4ohm range.
- 4.3" Color TFT display (screen (Optional).
- Bluetooth Connectivity.(Optional).
- USB interface.(Optional).
- OLTC Test with Graph.(Optional).
- Heat Run Test.(Optional).

## Specification

**9** POWER SUPPLY :  $230V AC \pm 10\%$ ,  $50Hz \pm 5\%$ , Single phase.

• RANGES :  $0.1\mu\Omega$  to 199.99 Ω (Auto range selection)

Resistance Channels : Two Independent channels

● INDICATION : 4 Line LCD display for Resistance and Current

• RESOLUTION : 0.1 micro ohm on 2 milliohm range

• ACCURACY :  $\pm 0.5\%$  of rdg  $\pm 3$ digit

● DC POWER SUPPLY : 50 Volt/10Amp (500VA)

▼ TEST CURRENT RANGE : 10A, 5A, 1A, 0.1A, 0.01A

● KEYPAD : 12 Keys Soft-touch.

CABLES : Test cables , Ground Cable, Power Cord & Cable Bag.

● DIMENSIONS : L=420x B=240x H= 175mm ± 10mm

● WEIGHT : Approx. 15Kg

• Printer : Thermal Printer Built-in

Port : RS 232 with Serial USB Convertor

Storage : 100 Test results

### Warranty

Sivananda Electronics warranties its products against defects in material and workmanship for a period of one year from the date of installation or 15 months from the date of dispatch, whichever is earlier. This warranty excludes normal wear on finishes or damage that occurs due to abuse or misuse.

### **Our Other Products**

- Instruments: 200+ types of test equipment's for Power, Wire & Cable, Capacitor, Oil & Petroleum industries are developed by in-house R&D Lab. Surge Testers, Automatic C&Tan Delta Bridges, Transformer Windings Resistance Meters, Oil Insulation Test Kits, Oil Tan Delta, Volume Resistivity & Dielectric constant Meter, Insulation Resistance Tester, Contact Resistance Meter etc.
- Security: Turnstiles, Tripods, Barriers, Metal Detectors, Bollards etc.

**Disclaimer :** To Keep pace with the technology Sivananda Electronics reserves it's right to update the system without prior consent.

### **About Us**

- 50 years (in 2020) of service to India.
- 1<sup>st</sup> to develop metal detectors for security in India. Made in India.
- 1<sup>st</sup> to develop Turnstiles in India. Made in India.
- Eclina Awards (1995), Elecrama Awards (1996), NIMA Awards (1999)
- Leading manufacturers of Security Systems and Test & Measuring Instruments in India.
- Largest supplier of Turnstiles in India in the last 25 years
- 150 different types of Electronic Test & Measuring instruments are indigenously developed for many industries.
- Exporting to 70+ countries.