



# Sivananda Electronics

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**TRANSFORMER WINDING RESISTANCE METER  
TWRM-25A**

## Introduction

- This is the only indigenous TWRM which gives very fast readings for 3Phase Star-Delta any combination Transformers.
- It is designed to measure the winding resistance of transformers, Inductors, generators and motor windings, Tap Changers Etc.
- It is exclusively designed for Highly Inductive objects like 400KV/220KV. 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 25A regulated and highly stable current source with current selection of 25 Amp ,10Amp, 5Amp, 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 LCD display is provided for resistance and current measurement in milliohms and in ohms.

## Features

- ⊙ The only indigenous TWRM which gives very fast readings for 3 Phase Star-Delta any combination transformers
- ⊙ Regulated and highly stable 50 Volt
- ⊙ 25 Amp, 10A, 5A, 1A, 0.1A & 0.01A current source.
- ⊙ 4½ digit LCD display, 19999 counts.
- ⊙ Simultaneous measurements of voltage & current.
- ⊙ True four terminal measurements.
- ⊙ Resolution of 0.1 micro ohm
- ⊙ Protection against inductive kickback and discharge.
- ⊙ Visual indication for discharge.
- ⊙ Resistance Range Auto ranging
- ⊙ This product is designed to measure the winding resistance of Transformers, Inductors, Generators and Motors, Windings, Tap changers etc.
- ⊙ Exclusively designed for highly inductive objects like 765kV. The built-in open circuit voltage of DC supply ensures that core of the transformer is saturated for taking quick measurements. Care is given to absorb the Back emf of such transformers.
- ⊙ For user safety indication of discharges is provided on front panel, if current through winding under measurement is disturbed or discontinued.
- ⊙ Instrument has built in 25A regulated and highly stable current source with current selection of 25A, 10A, 5A, 1A, 0.1A & 0.01A
- ⊙ Instrument uses ratio-metric circuit where the resistance of specimen is compared with known internal standard and LCD display is provided for resistance measurement in micro-ohm, milliohms and in ohms.

Tap changers time and graph, OLTC Time and current deviation in %. Heat Run Graph Test Time vs Resistance

## Specification

- ⦿ Power Supply : 230V AC  $\pm$  10%, 50Hz  $\pm$  5%, single phase.
- ⦿ Test Current : 25A, 10A, 5A, 1A, 0.1A & 0.01A
- ⦿ Ranges : 0.1m  $\Omega$  to 2000  $\Omega$  auto ranging
- ⦿ Indication : 4  $\frac{1}{2}$  Digital panel meter LCD (19999 counts)
- ⦿ Resolution : 0.1 $\mu$ W at 1.9999 milli $\Omega$  range
- ⦿ Accuracy :  $\pm$  0.1%  $\pm$  2Digits
- ⦿ Test Voltage : 50 VDC
- ⦿ Channels : 2 Channels.
- ⦿ Keypad : 12 Keys Soft-touch.
- ⦿ Cables : Test cables (20mtrs) with suitable clamps, Ground Cable, Power Cord & Cable Bag.
- ⦿ Safety Specs : In compliance with IEC61010
- ⦿ EMI/EMC Specs : In compliance with IEC61326
- ⦿ Weight :  $\leq$  15Kgs (without Leads)
- ⦿ Operating Temp : 0 $^{\circ}$ c to +50 $^{\circ}$ C
- ⦿ Relative Humidity : Max. 90% non-condensing
- ⦿

## Warranty

Sivananda Electronics warrants 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.