# SIVA **INSTRUMENTS**



ISO 9001: 2008

## **Transformer Winding Resistance Meter** Model:TWRM-25A uP



## Introduction

Transformer Winding Resistance Meter is designed to measure the winding resistance of transformers, Inductors, Generators and Motors, Windings, Tap changers etc.

It is specially designed for Highly Inductive objects like 765kV.. 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 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

Tap changers time and Graph. **OLTC Time and current Deviation** 

Heat Run Graph Test Time Vs Resistance

### **Features**

- Regulated and highly stable 50Volt 25Amp, 10A, 5A, 1A, 0.1A & 0.01A current
- 41/2 digit LCD display, 19999 counts.
- 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.
- Resistance Range Auto ranging

- Line voltage interference suppression making instrument most suitable for field applications..
- Light weight with carrying case & with 20 meter leads.
- RS232 port, Data acquisition software Windows Based and Remote operation.
- Automatic Discharge.
- Thermally Protected Power Supply.
- Temp. correction & Compensation for Cu & Al.

## **Specification**

**POWER SUPPLY** 

: 230V AC  $\pm$  10%. 50Hz  $\pm$ 5%, single phase.

**TEST CURRENT** 

: 25A, 10A, 5A, 1A, 0.1A &

**RANGES** 

0.01A :  $0.1 \text{m}\Omega$  to 2000  $\Omega$  auto

ranging

INDICATION

LCD (19999 counts)

RESOLUTION

range

**ACCURACY** 

:± 0.1% ± 2Digits : 50VDC : 2 Channels.

TEST VOLTAGE **CHANNELS PORTS** 

: 4 ½ Digital panel meter

:  $0.1\mu\Omega$  at 1.9999 milliohm

: RS232 Port

SOFTWARE : Windows based software for data downloading, Report Generation, Temperature Compensation, Heat

Run Test

**KEYPAD** : 12 Keys Soft-touch. **CABLES** : Test cables (20mtrs) with suitable clamps, Ground Cable, Power

Chord & Cable Bag.

**SAFETY SPECS** : Complied IEC61010 **EMI/EMC SPECS** WEIGHT

: Complied IEC61326 : < 15Kg. ( without

Leads)

: 0°c to +50°C **OPERATING TEMP RELATIVE HUMIDITY** : Max. 90% noncondensing



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