



# SIVA INSTRUMENTS

## Transformer Winding Resistance Meter

Model : TWRM-50A uP



An ISO 9001:2008 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 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/discontinued.

Instrument has built in 50A regulated and highly stable current source with current selection of 50amp, 25Amp,10Amp,1Amp, 0.1Amp & 0.01Amp.

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.

## Features

- Regulated and highly stable 50Volt 50Amp, 25Amp, 10 Amp, 1Amp,0.1Amp & 0.01Amp current source.
- 4½ 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.
- Line voltage interference suppression , making instrument most suitable for field applications.
- Current Vs Time plot for OLTC .
- Light weight with carrying case & with 20 meter leads.
- RS232 port , Data acquisition software Windows Based.
- Automatic Discharge.
- Thermally Protected Power Supply.
- Temp. correction & Compensation for Cu & Al.

## Specifications

<b>POWER SUPPLY</b>	230V AC $\pm$ 10%, 50Hz $\pm$ 5%, single phase.
<b>TEST CURRENT</b>	50A, 25 A, 10A, 1A, 100mA, 10mA.
<b>RANGES</b>	100micro to 2000 $\Omega$ auto ranging
<b>INDICATION</b>	4 ½ Digit on coloured LCD ( 19999 counts)
<b>RESOLUTION</b>	0.1 $\mu\Omega$ upto 500 $\mu\Omega$ range
<b>ACCURACY</b>	$\pm$ 0.2% $\pm$ 2 count.
<b>DC POWER SUPPLY</b>	50VDC,50Amp
<b>CHANNELS</b>	2 Channels.
<b>PORTS</b>	RS232 Port, USB
<b>MEMORY</b>	30 sets of readings.
<b>SOFTWARE</b>	Windows based software for data downloading, Report Generation, Temperature Compensation in External Laptop supplied with Kit.
<b>KEYPAD</b>	Touch-screen
<b>CABLES</b>	Test cables , Ground Cable, Power Chord & Cable Bag.
<b>SAFETY SPECS</b>	Complied IEC61010
<b>EMI/EMC SPECS</b>	Complied IEC61326
<b>OPERATING TEMP</b>	0 TO +50°C
<b>RELATIVE HUMIDITY</b>	Max. 90% non-condensing.

## SIVANANDA ELECTRONICS

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