



Features

- ✓ Test Current : 25A, 10A, 5A, 1A, 100mA & 10mA
- ✓ Resolution of $0.1\mu\Omega$
- ✓ 3 independent channels for resistance measuring
- ✓ Auto Range Facility
- ✓ Heat Run Test Facility - Through unit and software
- ✓ 60V High Open Circuit Voltage for stable readings
- ✓ Demagnetization Facility
- ✓ OLTC Dynamic Resistance Test with Graph: Time vs Current
- ✓ Inbuilt Thermal Printer & Memory
- ✓ Bluetooth enabled for Motware Mobile App
- ✓ Temperature Measurement & Correction
- ✓ Emergency Stop Switch

XWRM-25A

Transformer Winding Resistance Meter

| | | | | |
|---------|----|----|-----|-----------|
| CAT III | IP | CE | USB | Bluetooth |
| 600V | 54 | | | |

XWRM-25A transformer is a Winding Resistance Meter designed for accurate & fast measurement of highly inductive loads such as Transformers, Reactors, Generator & HT Motors etc. The selectable smooth DC test current is useful to test transformer with different power ratings. Higher Open Circuit voltage saturate the core in quickly in order to get stable readings. The three resistance measurement channels for simultaneous measurement of three windings help to reduce testing time. The heat run test feature is available with graphical representation through software and also has demagnetization facility, which eliminates the magnetic remanence effects. XWRM-25A has facility to test make-before-break operation of on-load tap-changers which helps in the analysis of OLTC switch contacts. The Back EMF feature protects XWRM-25A from high inductive kickbacks. The large LCD display with keypad provides easy operation. It also has the Software for remote operation and detail report generation. Also have an internal memory to store 2000 test results and inbuilt thermal printer provided for onsite report.

XWRM-25A has Bluetooth connectivity module with Motware mobile app for remote access of testing data & storage in the cloud for further analysis & record purpose.

Applications

Winding Resistance Test is an essential test which enables to identify shorted turns, loose connections, or deteriorating contacts in tap changers and measurements on all tap changer positions in transformer (if present) and compared to previous or factory test values for evaluating the condition of the transformer windings and leads. The acceptance criteria for the field-measured values should be within 3% of the factory values. A change greater than the acceptance criteria is indicative of short-circuited turns, poor joints, or bad tap changer contacts. This test should be performed during acceptance testing and when other maintenance electrical tests are conducted.

- Power Transformer
- Motor and Generator
- Reactor
- Heat Run Test
- OLTC Dynamic Test

Technical Details

XWRM-25A

Technical Specifications

| | |
|-------------------------------------|---|
| Power Supply | 115/230VAC, 50/60 Hz |
| Test Current | 25A, 10A, 5A, 1A, 100mA, 10mA ($\pm 10\%$ of range) |
| Open-Circuit Test Voltage | 60 VDC |
| Burden | 1500 W |
| Resistance Measurement Range | |
| Accuracy | $\pm (0.25\% \text{ of rdg} \pm 0.25\% \text{ of FSD})$ |
| Range Accuracy | $\pm(0.25\% \text{ of FSD} \pm 5.0\mu\Omega)$ for 0.1 $\mu\Omega$ to 199.9 $\mu\Omega$ only |

| Test Current | | | | | | Range (Ω) | Resolution (Ω) | Maximum Display (Ω) |
|--------------|-----|----|----|-------|------|--------------------------------|---------------------------------|------------------------------------|
| 25A | 10A | 5A | 1A | 100mA | 10mA | | | |
| ✓ | | | | | | 200 $\mu\Omega$ | 0.01 $\mu\Omega$ | 199.99 $\mu\Omega$ |
| ✓ | ✓ | | | | | 2 m Ω | 0.1 $\mu\Omega$ | 1.9999 m Ω |
| ✓ | ✓ | | ✓ | | | 20 m Ω | 1 $\mu\Omega$ | 19.999 m Ω |
| ✓ | ✓ | | ✓ | ✓ | | 200 m Ω | 10 $\mu\Omega$ | 199.99 m Ω |
| | ✓ | | ✓ | ✓ | ✓ | 2 Ω | 0.1m Ω | 1.9999 Ω |
| | | | ✓ | ✓ | ✓ | 20 Ω | 1 m Ω | 19.999 Ω |
| | | | | ✓ | ✓ | 200 Ω | 10 m Ω | 199.99 Ω |
| | | | | | ✓ | 2000 Ω | 0.1 Ω | 1999.9 Ω |
| | | ✓ | | | | 4 m Ω | 0.1 $\mu\Omega$ | 4.0000 m Ω |
| | | ✓ | | | | 40 mΩ | 1 $\mu\Omega$ | 40.000 mΩ |
| | | ✓ | | | | 400 m Ω | 10 $\mu\Omega$ | 400.00 m Ω |
| | | ✓ | | | | 4 Ω | 0.1m Ω | 4.0000 Ω |

General

| | |
|----------------------------|-----------------------------------|
| Principle | 4 wire measurement |
| Measurement Channel | 3 Resistance & 1 Current channels |
| Temperature Channel | 2 Channel |
| Temperature Range | 0 - 100°C |

Note: Photo & weight are subjected to change.

Notes: 1. The Instrument is accompanied with Test & Calibration sheet. 2. Test Facilities can be provided at the factory with the available test set-ups only. 3. The company's policy includes continuous improvement of its product. We, therefore, reserve the right of any deviation from illustration or specifications without notice. 4. Stated accuracies are valid from 10% of the range to 95% of the range. 5. Accuracy specified for temperature range of 25°C \pm 5°C & 55% RH \pm 10%.

| | |
|------------------------|--|
| Display | Display: Custom Built 4 LCD Display with Backlit, size: 166.8 X 109mm during test ON, & discharge. |
| Indication | USB & Bluetooth operation |
| PC Connectivity | 2000 test readings |
| Internal Memory | Inbuilt thermal printer |
| Printer | |

Safety & Standards

Safety in accordance with IEC 61010-1
 EMC in accordance with IEC 61326-1
 Type test in accordance with IEC 60068
 Measurement Category- CAT III (600V) Reinforced insulation.
 CE Certified.
 Ingress Protection : IP67 when lid is closed.

Environmental

| | |
|------------------------------|------------------------|
| Operating Temperature | 0°C to 55°C |
| Storage Temperature | -10°C to 60°C |
| Humidity | 95% RH, Non condensing |

Physical Specifications

| | |
|---|-----------------------------------|
| Physical Specifications | 525 mm(L) X 437 mm(W) x 213 mm(D) |
| Instrument (excluding accessories) | 17 Kg (Approx) |
| Gross weight (including accessories) | 28 kg (Approx) |

Software Details

| | |
|----------------------|--|
| Type | Windows based analytical software |
| Data Transfer | Real time data transfer |
| Features | Online Data Acquisition Graph Plotting for Heat Run Test & OLTC Dynamic Test Remote Operation Test Report Generation |

Accessories

Standard

| | |
|--------------------------------------|---------|
| ■ Test leads (15 meter) | : 1 Set |
| ■ Short link (5 meter) | : 2 Nos |
| ■ Master earthing cable(5 meter) | : 2 Nos |
| ■ Mains cord straight, length=3.0mtr | : 1 No. |
| ■ Instruction manual for XWRM-25A | : 1 No |
| ■ Thermal paper role 57*30 | : 1 No. |
| ■ USB 2.0 A/B cable 1.5 mtr long | : 1 No. |
| ■ OLTC probe | : 1 No |
| ■ MagneticTemperature sensor probe | : 1 No |
| ■ Pen drive | : 2 Nos |
| ■ Test & Calibration Certificate | : 1 No. |
| ■ Spare Fuse | : 1 No |

Optional

| |
|-------------------------------|
| ■ Bluetooth |
| ■ Motware Desktop Application |

ORDERING INFORMATION

| Product | Order Code |
|---|------------------|
| XWRM-25A with Standard Accessories | 109213410 |