



Features

- ✓ Test Current : 10A, 5A, 1A, 100mA & 10mA
- ✓ Resolution of $0.1\mu\Omega$ with $\pm 0.1\%$ Accuracy
- ✓ 3 independent resistance measuring channels
- ✓ Auto Range Facility
- ✓ Heat Run Test Facility
- ✓ 48V Open Circuit Voltage for stable readings
- ✓ Demagnetization Test Facility
- ✓ OLTC dynamic test with Graph : Time vs Current
- ✓ In-built Thermal Printer & Memory
- ✓ Bluetooth enabled for Motware Mobile App

XWRM-10A

Transformer Winding Resistance Meter

CAT III	IP	CE	USB	Bluetooth
600V	54			

XWRM-10A transformer winding resistance meter designed for accurate & fast measurement of highly inductive loads such as Transformers, Reactors & HT Motors etc. The selectable smooth DC test current is useful to test windings with different ratings. 48V open circuit voltage saturates the core in quick time in order to get stable readings. The three resistance measurement channels for simultaneous measurement of three windings reduces testing time. The heat run test feature is available with graphical representation through software and also has a demagnetization facility, which eliminates the magnetic remanence effects. XWRM-10A has a facility to test the make-before-break operation of on-load tap-changers which helps in the analysis of OLTC switch contacts. The Back EMF feature protects XWRM-10A from high inductive kickbacks. The large LCD display with keypad provides easy operation. Also have an internal memory to store 2000 test results and inbuilt thermal printer provided for onsite report.

XWRM10A 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

Technical Details

XWRM-10A

Technical Specifications

Power Supply 115/230VAC,50/60 Hz

Test Current

10A, 5A, 1A, 100mA & 10mA

Open Circuit Test Voltage 48 VDC

Burden 500 VA

Resistance Measurement Range

Accuracy $\pm(0.1\%$ of rdg. ± 5 counts)

Test Current					Range (Ω)	Resolution (Ω)	Maximum Display (Ω)
10A	1A	100mA	10mA				
✓				2m Ω	0.1u Ω	1.9999m Ω	
✓	✓			20m Ω	1u Ω	19.999m Ω	
✓	✓	✓	✓	200m Ω	10u Ω	199.99m Ω	
✓	✓	✓	✓	2 Ω	0.1m Ω	1.9999 Ω	
	✓	✓	✓	20 Ω	1m Ω	19.999 Ω	
		✓	✓	200 Ω	10m Ω	199.99 Ω	
			✓	2000 Ω	0.1 Ω	1999.9 Ω	

Test Current	Range (Ω)	Resolution (Ω)	Maximum Display (Ω)
5A	4m Ω	4 $\mu\Omega$	4.0000m Ω
	40m Ω	1 $\mu\Omega$	40.000m Ω
	400m Ω	10 $\mu\Omega$	400.00m Ω
	4 Ω	0.1m Ω	4.0000m Ω

General

Principle 4 wire measurement

Measurement Channel 3 Resistance & 1 Current channels

Temperature Channel 2 Channel

Temperature Range 0 - 100°C

Display LCD

Indication LED & Beep during test ON, & discharge.

PC Interface USB

Internal Memory 2000 test readings

Printer Inbuilt thermal printer

Safety & Standards

Ingress Protection : IP54

CE Certification

Safety : Meets requirement of IEC 61010-1

EMC : Meets requirement of IEC 61326-1

Environmental

Operating Temperature 0°C to 55°C

Storage Temperature -10°C to 60°C

Humidity 95% RH, Non condensing

Physical Specifications

Physical Specifications 485mm x 392mm x 192mm

Weight 10 Kg

Analytic Software

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

- 15 meter measuring test lead set
- Mains Power cord
- Short links - 2Nos.
- Earthing lead
- User Manual
- Calibration Certificate
- Carry Case for Test leads

Optional

- OLTC Probe
- PC Software
- USB Cord
- Temperature Sensor
- Bluetooth application via cloud based Motware application

MOT-WARE Cloud Application

Motwane has designed and developed MOT-WARE – a cloud based test data platform to aid in accurate Asset Health Assessment. Through MOT-WARE, the test and measurement industry has taken a huge leap forward. MOT-WARE captures data from full range of BLE enabled Motwane testing equipment. It is a user-friendly platform as it is also accessible from a web-based, desktop as well as a mobile application. In addition, it offers an open architecture that can seamlessly integrate with any non Motwane test and measurement equipment for quick and authentic digital test data, captured periodically as well as streamed with real-time data via sensors from loXn series of IOT devices.

MOT-WARE has a preloaded repository of test templates for various electrical assets as well as customizable test templates. A customized report builder in MOT-WARE allows the user to generate report in their own format. It also has a facility to upload historical test data and breakdown history of assets. Test results can also be viewed by various metrics, such as pass or fail.

Data Analysis is also done through MOT-WARE which includes Trend Analysis, MIS Reports and Pivot Tables. As an add-on, MOT-WARE also offers “Motwane AI Analytics” which uses a proprietary AI algorithm and Machine Learning to make accurate predictions about assets life, based on its behavioural patterns and operating conditions.

Being centralized test data, it helps in improving life of assets, its productivity and efficiency, cost reduction, etc. It can be used for various applications across customers' segments like Utilities, OEMs, Industry, Electrical contractors (Testing, O&M) or Field repairs & Service Provider, EPCs, commercial premise and many more.