

# XTRM-3A

Transformer Turns Ratio Meter



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## Transformer Turns Ratio Meter

Motwane has introduced Transformer Turns Ratio Meter XTRM-3A, a new generation of fully automatic ratio testers. XTRM-3A measures the transformation ratio of **single** phase and **three** phase transformers using modern electronic techniques. This replaces the Ratio testers using 'current balancing bridge' circuits, requiring manual 'null' balancing. XTRM-3A incorporates breakthrough technology and design that gives accurate and reliable results repeatedly. It is micro controller operated user friendly and reliable tester. XTRM-3A incorporates a large LCD screen for display of menu and results. The entire test is done automatically and quickly. Operator enters the test parameters and XTRM-3A takes over, applies the test voltage, balances the bridge, takes the readings, and displays the results on the LCD screen. The results can be printed on built-in printer after the test is over. The windows based software is provided for easy operations of the Turn Ratio Meter via USB communication port. The automatic detection of transformer vector group is a key feature of the XTRM-3A. LV and HV windings are automatically isolated after the measurement is over. The XTRM-3A is a single unit design, encased in an hard industrial cabinet, lightweight (only 15 kg), achieving portability.

## Features

- Fully automatic, no manual balancing required
- Testing single phase and three phase transformers
- Automatic measurement of transformer vector group
- Measurement of Turns ratio, Voltage ratio, Ratio error, Phase angle & Excitation current
- Emergency stop
- Remote operation and test report generation software
- Rugged leads with distinct color code
- Isolates test voltage automatically after test
- Facility to save 500 Test results
- In- built printer
- IP 54, CE and EMC compatible

## Applications

- Turn Ratio testing of Single phase/ Three phase Auto Transformers, Power Transformers and Distribution Transformers
- Turn Ratio testing of Current Transformers
- Verification & Checking of on load Tap Changers.



## Technical Specification

Power supply	: 100-240VAC,50/60 Hz
Measurement ratio	: 0 : 5000@10V AC 0 : 10000@100&200V AC
Display	: LCD
Accuracy	: $\pm 0.2\%$ (for Measurement ratio from 0.8 to 10000)
Test voltage	: 10V AC, 100V AC, 200V AC
Excitation Current	: Upto 1A
Resolution	: 0.1mA
Phase Angle	: $\pm 90^\circ$
Phase Angle Resolution	: $0.01^\circ$
Accuracy	: $\pm 0.5^\circ \pm 4$ digit
Printer	: Built in Thermal printer
PC interface	: USB
Report Storage	: 500 reports

## Environmental Specifications

Operating Temperature	: 0 °C to 50 °C
Storage Temperature	: -10 °C to 60 °C
Relative Humidity	: $\leq 85\%RH$ at 40°C max (non condensing)

## Physical Specifications

Dimensions	: 50.2 x 40.1 x 18.8 cm
Weight	: Approx. 15 kg

## Safety features

Safety in accordance with EN 61010-1
EMC in accordance with EN 61326-1
CE Certified
Measurement CAT III 600V/ CAT IV 600V
Ingress Protection IP 54
CAT II (1000V)/CAT III (600V) Reinforced insulation
Emergency stop



## Software Details

### Full Windows compatible software

Software is fully compatible with Microsoft

Type	: Window based Software
Interface	: USB communication port
Features	: Remote Operation : Data down loading : Analysis and report generation

Sl. No.	Date	Time	Test No.	Type	Test No.
1	08 Mar 2015	11:00:00 AM	30	0	
2	08 Mar 2015	11:00:00 AM	30	0	
3	08 Mar 2015	11:00:00 AM	30	0	
4	08 Mar 2015	11:00:00 AM	30	0	
5	08 Mar 2015	12:00:00 AM	30	0	
6	08 Mar 2015	12:01:00 AM	30	0	
7	08 Mar 2015	12:12:00 AM	30	0	
8	08 Mar 2015	12:18:00 AM	30	0	
9	08 Mar 2015	12:19:00 AM	30	0	
10	08 Mar 2015	12:22:00 AM	30	0	
11	08 Mar 2015	12:25:00 AM	30	0	
12	08 Mar 2015	12:25:00 AM	30	0	

Trending of data can reveal vital information about deterioration, the enables user to take informed decision regarding maintenance.

## Accessories

### Standard Accessories

Mains Power Cord	: 1 No.
Test Lead Set	: 1 No. (5m long with terminated alligator clips)
Thermal Paper roll	: 1 No.
Instruction Manual	: 1 No.
Calibration Certificate	: 1 No.

### Optional Accessories

Software	: 1 No.
USB Cable	: 1 No.
10m Extension Cable Set	: 1 No.

## 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 is continuous improvement of its products. 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  $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$  &  $55\% \text{ RH} \pm 10\%$



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