



IT-51

5KV Digital Insulation Tester
with PI



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The Motwane IT-51 is a microprocessor based Digital Insulation tester designed for testing of all types electrical installation like transformers, switchgear, motors, generators and utility substation equipments. The instrument automatically performs Polarization index by selecting PI mode. IT-51 has a large LCD blue backlit display, it shows leakage current in scrolling form along with IR value and PI value. It is rechargeable battery operated and AC mains provision for battery charging.



FEATURES & BENEFITS

- Selectable test voltage from 250V, 500V, 1000V, 2500V, 5000V DC.
- Insulation Resistance measurement up to $1T\Omega$
- Polarization Index measurement facility
- Short circuit current $< 1.4 \text{ mA}$. approx.
- AC/DC voltage measurement up to 600V.
- Two Programmable timer from 0 Sec to 99 minutes.
- Liquid Crystal Display with pleasant blue backlit.
- Internal rechargeable Battery.
- Safety - IP 54, CAT IV 600V and CE conformity.
- Robust ABS body with self-carrying handle for easy portability.
- Automatic discharge for capacitive circuits.
- Guard terminal to minimize the surface leakage.

APPLICATIONS

Insulation testing of

- All electrical rotating machineries & Equipment
- HV & LV Transformers
- HV & LV Switchgears
- Cables & Insulators
- All types of Electrical Installations

SPECIFICATIONS

Terminal Voltage

- Test Voltage : 250V, 500V, 1000V, 2500V, 5000V
- Test Voltage Accuracy : $\pm 5\%$ of rdg
- Short circuit current : 1.4 mA \pm 0.5 mA
- Programmable Timers : T1 and T2

Insulation Resistance

- Analog Display : 1 K Ω to 1 T Ω
- Digital Display : (3 Digit Display) 1 K Ω to 1 T Ω

Insulation Accuracy

- Up to 1 G Ω : All Ranges \pm (5 % + 2 digits)
- Over 1 G Ω : 5000V \pm (5 % + 0.04% per G Ω)
: 2500V \pm (5 % + 0.08% per G Ω)
: 1000V \pm (5 % + 0.2% per G Ω)
: 500V \pm (5 % + 0.4% per G Ω)
: 250V \pm (5 % + 0.8% per G Ω)

AC/DC Voltage Measurement

- Range : Up to 600V
- Accuracy : \pm (3 % of rdg + 5 digits)

Polarization index (PI)

- Display range : 0 - 99.9
- Accuracy : \pm (5 % of reading + 5 digits)
- Resolution : 0.01

Power Supply Specifications

- Battery : Internal Rechargeable
- Display : Custom Built LCD Display with Blue Backlit.

General

- Weight : 5.0 Kg (Approx) (without Accessories)
- Dimensions (H X W X L) : 195 mm X 290 mm X 360 mm (Approx)

Environmental

- Operating Temperature : -10 $^{\circ}$ C to 55 $^{\circ}$ C
- Storage Temp : -20 $^{\circ}$ C to 70 $^{\circ}$ C
- Humidity : less than 95% RH, non condensing max at 40 $^{\circ}$ C

Safety and Standards

- Safety in accordance with : EN61010-1 : 2001
- EMC in accordance with EN 61326-1 : 2006
- Type Test in accordance with IS 11994
- Ingress Protection IP 54
- CE & CAT IV 600V
- Safety of test lead in accordance with EN61010-031 : 2002 +A1 : 2008

STANDARD ACCESSORIES

Included Accessories

- Test leads 3 meter : 1 Set
- User Manual : 1 No
- Calibration Sheet : 1 No

Optional Accessories

- Test leads 10 meter : 1 Set



DBS/PC/IR-13/Rev-00

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 250C ± 50C & 55% RH ±10%.

Designed and Manufactured by:

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