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 white 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 1TΩ
- Polarization Index measurement facility
- Short circuit current < 1.4 mA, approx.
- AC/DC voltage measurement up to 600V
- Two Programmable timer from 0 Sec to 99 minutes.
- Liquid Crystal Display with pleasant white 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**: ± 5 % of rdg
- **Short circuit current**: 1.4 mA ± 0.5 mA
- **Programmable Timers**: T1 and T2

### Insulation Resistance
- **Analog Display**: 1 kΩ to 1 TΩ
- **Digital Display**: (3 Digit Display) 1 kΩ to 1 TΩ
- **Insulation Accuracy**
  - **Up to 1 GΩ**: All Ranges ±(5 % + 2 digits)
  - **Over 1 GΩ**
    - 5000V ± (5 % + 0.04% per GΩ)
    - 2500V ± (5 % + 0.08% per GΩ)
    - 1000V ± (5 % + 0.2% per GΩ)
    - 500V ± (5 % + 0.4% per GΩ)
    - 250V ± (5 % + 0.8% per GΩ)

### AC/DC Voltage Measurement
- **Range**: Up to 600V
- **Accuracy**: ± (5 % of rdg + 5 digits)

#### Polarization index (PI)
- **Display range**: 0 - 99.9
- **Accuracy**: ±(5 % of reading + 5 digits)
- **Resolution**: 0.01

### Power Supply Specifications
- **Battery**: Internal Rechargeable
- **Display**: Custom Built LCD Display with White Backlit.
- **Mains Power Supply**: 115 - 230VAC 50/60Hz

### 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°C to 55°C
- **Storage Temp**: -20°C to 70°C
- **Humidity**: less than 95% RH, non condensing max at 40°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

<table>
<thead>
<tr>
<th>Included Accessories</th>
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<tr>
<td>Test leads 3 meter: 1 Set</td>
<td>Test leads 10 meter: 1 Set</td>
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<td>User Manual: 1 No</td>
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<tr>
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## 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°C ± 5°C & 55% RH ± 10%

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**Designed and Manufactured by:**

The Motwane Manufacturing Company Pvt. Ltd.

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