

# IT-51B

## 5KV Diagnostic Insulation Tester

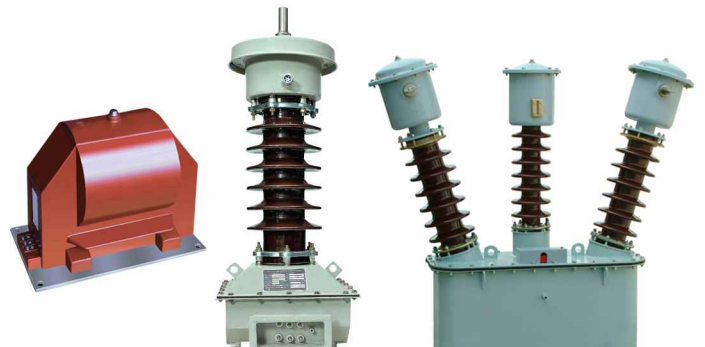


The Motwane IT-51B is a microprocessor based Digital Insulation tester designed for testing for all types of electrical installation like transformers, switchgear, motors, generators and utility substation equipments. The instrument automatically performs Polarization Index by selecting PI mode. IT-51B has a large LCD pleasant amber backlit display. It is light weight, compact, has Robust ABS body & highly efficient rechargeable battery operation.



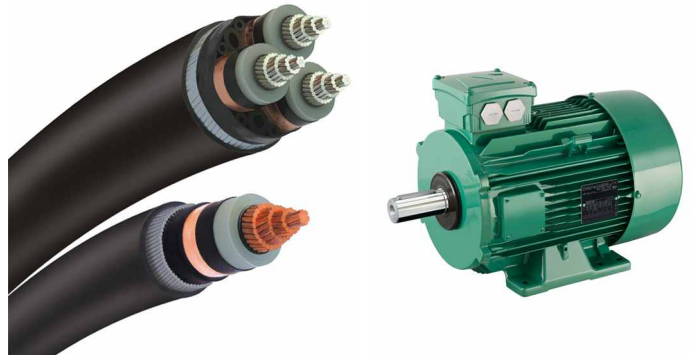
## APPLICATIONS

- Insulation testing of
- All electrical rotating machines & Equipments
  - HV & LV Transformers
  - HV & LV Switchgears
  - Cables & Insulators
  - All types of Electrical Installations



## SMART FEATURES

- Selectable test voltage 250V, 500V, 1000V, 2500V & 5000V.
- Insulation Resistance Measurement up to 1TΩ
- Programmable timer from 0 Sec to 99 minutes.
- Auto discharge facility.
- Liquid Crystal Display with pleasant amber backlit.
- Auto calibration at every start up.
- Short circuit current  $\leq 1.4\text{mA}$
- Polarization Index measurement facility
- Data Recall function
- AC/DC voltage measurement up to 600V.
- USB for Communication with PC.
- Inbuilt digital and software filter.
- Robust ABS body with self-carrying handle for easy portability.
- Shutters across terminals face for ingress protection from Dust, moisture and external objects
- Internal Memory storage of 1000 readings.
- Safety - Ingress Protection IP 54, CAT IV 600V and CE conformity.
- Highly efficient rechargeable battery operated instrument.
- Battery status indicator on LCD display.
- GUARD terminal to eliminate surface leakages.



## TECHNICAL SPECIFICATIONS

### Test Voltage

- Nominal test voltage : DC 250V, 500V, 1000V, 2500V & 5000V
- Accuracy :  $\pm 10\%$  +5 digit
- Short-circuit test current :  $\leq 1.4\text{mA}$  ( $\pm 0.5\text{mA}$ ) approx.
- Overload Protection : 230V DC/AC rms for 30 sec

### Insulation Resistance

- Insulation Range : 0.1M $\Omega$  to 1T $\Omega$

Test Voltage	Max. Insulation Resistance	Accuracy $\pm$ (% reading + Digit)
250V	50G $\Omega$	$\pm (5\% + 5)$
500V	100G $\Omega$	
1000V	200G $\Omega$	
2500V	500G $\Omega$	
5000V	1T $\Omega$	

### Voltage Measurement

Range	Accuracy $\pm$ (% reading + Digit)
0 - 600V DC	$\pm (5\% + 5)$
0 - 600V AC rms	$\pm (5\% + 5)$

### PI Measurement

Range	Accuracy $\pm$ (% reading + Digit)	Resolution
0-99.9	$\pm (5\% + 5)$	0.01

## GENERAL SPECIFICATIONS

- Insulation Resistance measurement : Digital & Analog (Bar Graph) indication.
- Display : LCD display with Backlit
- Default Test on time : 30 sec.
- Selectable test time : 1 sec. to 99 minutes.
- Data Storage functions : 1000 readings.
- PC interface : USB port

### Power

- Power Supply : 14.8V Rechargeable Li-ion battery
- Power Consumption : 40mA approx.
- Auto Power Off : After 15 min.

### Physical Specification

- Dimensions ( approx ) : 230mm X 165mm X 95mm
- Weight : 1.5kg approx (without accessories)

### Environmental

- Operating Temp. : 0°C to 50°C
- Storage Temp. : -20°C to 60°C
- Relative Humidity : 90% RH at 0°C to 40°C max. (Non Condensing).  
70% RH at 40°C to 50°C max. (Non Condensing).

### Indications & Annunciations

- Audio visual indication for HV ON
- Battery status indication, Battery charging indication,
- Audible discharge annunciation

## Safety (CE Certifications)

- Measurement Category : CAT IV (600V)  
Reinforced insulation
- Safety : According to EN 61010-1
- EMC : According to EN 61326-1
- CE certified
- IP Rating  
(Dust and water Protection) : IP54

## ACCESSORIES

### Standard Accessories

- Test Lead set (3 mtr. Long shrouded banana with crocodile clip)  
  
Red lead for +ve terminal : 1 No.  
Black lead for -ve terminal : 1 No.  
  
Green lead for GUARD terminal : 1 No.
- Instruction Manual : 1 No.
- Calibration sheet : 1 No.
- Carrying Bag : 1 No.

### Optional Accessories

- Test Lead set (10 mtr. Long shrouded banana with crocodile clip)  
  
Red lead for +ve terminal : 1 No.  
Black lead for -ve terminal : 1 No.  
  
Green lead for GUARD terminal : 1 No.
- USB Cable : 1 No.
- Software CD : 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°C ± 5°C & 55% RH ± 10%



EMPOWERING  
MEASUREMENT

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