

10K-PI

Diagnostic Insulation Tester



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10KV Automatic Diagnostic Insulation Tester

Features

- Available Diagnostic modes – IR, PI, DAR, DD, Step Voltage, BDV & Burn
- Programmable Test voltage from 500V-10KV
- Insulation Resistance Range from 1K Ω to 20T Ω
- Mains & Battery operation
- 1000 test data storage
- RS 232 & USB Port
- Software for data trending analysis
- AC/DC voltage measurement upto 600V
- Auto calibration as every start up
- Burn Mode for uninterrupted insulation resistance testing



Model 10K-PI is a diagnostic insulation tester having test voltage range upto 10KV; an Indigenous MOTWANE designed to conduct automatic diagnostic tests on high voltage equipments like Transformers, Cables, Bushings, Switchgears & rotating machines. 10K-PI is microprocessor based instrument deploying latest technology & very high speed data sampling to give correct, repetitive readings & quality performance under harsh electrical conditions. It has wide insulation resistance range up to 20T ohm.

Model 10-KPI is mains and battery operated portable & compact insulation tester for outdoor applications. The battery backup of 6 hours make it suitable for field operations. IP54 rating keeps 10K-PI safe from water & dust ingress. It complies with CAT IV 600V for safe operation. The instruments & its accessories are certified as per relevant IS/IEC standard.

The Information displayed on large backlit LCD display includes insulation resistance, leakage current, capacitance, battery status & timer. Three programmable timers are provided to conduct various tests like Polarization Index (PI), Dielectric Absorption Ratio (DAR), Dielectric Discharge (DD), Step Voltage (SV), & breakdown Voltage (BDV) test. 10K-PI can store 1000 test results. PC interface via USB & RS232 for data transfer. The software for report generation & data trending analysis helps to keep records of capital equipments.

Applications

- Power & Distribution Transformer
- Current Transformer
- Bushings
- Motors & Generators
- HT cables

Technical Specification

Diagnostic Modes : IR, DAR, PI, DD, SV, BDV, Burn
Test Voltage : 500V to 1KV in 10 V steps
 1 KV to 10 KV in 25 V steps
Voltage Accuracy : $\pm 5\%$

Short Circuit Current: 3mA
Programmable Timer : T1, T2 & T3 (0-99Min 59sec)

Measurement Section

Resistance Range :
Analog Display : 1 K Ω to 10 T Ω
Digital Display : 1 K Ω to 20 T Ω
Accuracy : $\pm 5\%$ (Upto 999G Ω)
 $\pm 10\%$ (1T Ω to 10T Ω)
 $\pm 20\%$ (10T Ω to 20T Ω)
Guarding : 3% error guarding <300K Ω
 with 100M Ω load

Leakage Current : 0-3mA
Accuracy : $\pm 5\%$
Capacitance : 1nF to 50 μ F
Accuracy : $\pm 5\%$
AC/DC Voltage : 0-600V
Accuracy : $\pm 8\%$ of reading
Capacitor charging time : ≤ 5 sec per μ F
Capacitor Discharge time : ≤ 2 sec per μ F

Interference Rejection : 1mA rms per 250V & max 4mA

Communication & Storage

Memory : 1000 Test Results
PC Interface : USB & RS232

Display : LCD with backlit

Power supply

Mains : 230V, 50Hz $\pm 10\%$
Battery type : Li-Ion Rechargeable Battery
Battery Backup : 6 Hrs of continuous testing at 10KV on load of 10G Ω
Battery charge time : 8 Hrs

Environmental condition

Operating Temp. : 0 $^{\circ}$ C to 55 $^{\circ}$ C
Storage Temp. : -20 $^{\circ}$ C to 70 $^{\circ}$ C
Humidity : <95%RH, Non condensing

Safety Standards

Safety in accordance with EN61010-1
 EMC in accordance with EN61326-1
 Type test in accordance with IEC 60068
 Test leads in accordance with IEC61010-31, CE & CAT IV600V, IP 54

Mechanical

Dimension (mm) : 195 X 290 X 360
Weight : 5Kg without accessories
Gross weight : 9.3Kg with accessories

Data handling & Analysis software

Operated on XP/Windows7/Windows8/Windows10
 Two way communication for remote operation
 Report generation along with graphical representation for data trending



Standard Accessories

- 3 X 3m Test lead with large insulated clip
- Mains Cord
- Instruction Manual
- Carry Case

Optional Accessories

- 3 X 10m Test lead with large insulated clip
- Software CD
- RS232 communication cable
- USB Cable
- Interlock Cable





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