www.kps-intl.com

10 kV INSULATION TESTER

INSUCHECK10000

Power Utility

Industry





GET IT ON Google Play

CAT IV 600V
CAT III 1000V

Application:

Digital Insulation tester *INSUCHECK10000* is designed to perform at power utilities where induction field is very high. Its high noise immunity and user selectable digital filters makes it most robust and reliable instrument with user selectable test voltages.

Also it is used for testing the electrical insulation of cables, motors, generators, transformers, etc. at power generation plants, utilities, distribution.

Its advance features like Bluetooth connectivity, audio read out, touch screen TFT color display makes it never before user friendly.

It can store the data on its inbuilt memory with real time stamp. Data can be transferred to computer or mobile phone memory for future analysis purpose.

It performs tests like Polarization Index, Dielectric Absorption Ratio,
Dielectric Discharge, Ramp Diagnostic Test, Step voltage test.

- ❑ Selectable short circuit current 1.2mA, 3mA and 6mA
- ❑ User selectable digital filters
- ❑ Noise Rejection 8 mA
- ❑ Operates on rechargeable Li-ion battery and Mains as well
- ❑ Bluetooth connectivity for data logging
- ❑ Touch screen TFT colour display
- ❑ Audio Read-out
- ❑ Test voltage can be selected in steps of 10V from 100V to 1000V & in steps of 25V from 1000V to 10000V
- ❑ Measurement of DC and AC voltages from 20V ~ 600V
- ❑ Three programmable timers
- ❑ Insulation leakage current measurement
- ❑ PI, DAR, DD, Step voltage & Ramp Test

www.kps-intl.com

INSUCHECK10000

10 kV INSULATION TESTER

Key Features:

❑**Selectable Test Voltage up to 10000 V**
Test voltages can be set to any desired value from 100V to 10000V
❑**High Insulation resistance measurement**
Insulation resistance measurement from 50kΩ to 20TΩ for 10kV test voltage
❑**Noise rejection - 8mA**
High Noise immunity allows accurate measurement under HT lines
❑**Polarization Index**
Polarization index (PI) testing is an extension of the insulation resistance test and is designed to check specific issues in a motor such as moisture and insulation deterioration
❑**Dielectric Absorption Ratio**
DAR measurement is a diagnostic test similar to the Polarization Index (PI), but DAR takes the ratio of the Insulation Resistance usually measured at 30 sec and 1 min (other time settings are possible)
❑**Dielectric Discharge**
Dielectric Discharge (DD) Test is a diagnostic insulation test that allows aging and deterioration of insulation to be assessed
❑**Step Voltage Test**
Step Voltage Test is designed as a controlled over-voltage or proof test to provide an additional evaluation of the insulation system integrity
❑**Ramp Diagnostic Test**
The Ramp Test is performed with a slowly rising voltage
❑ **Software Selectable**
User selectable software filter can be used depending on noise levels. This help in accurate reading in noisy environment
❑ **Capacitance Measurement**
During Di-electric Discharge Test, Capacitance can be measured from 1nF to 50uF
❑ **Go- NoGo Function**
Depending on insulation resistance limitthe user can be alarmed about the quality of insulation
❑ **Insulation Graph Display**
Insulation Resistance can be displayed over the time in graphical form
❑ **Communication Interface**
Bluetooth 2.0 & 4.0 Class II and electrically isolated USB 2.0 communication
❑ **Software and Mobile Application**
It has data logging and monitoring software for window system and an interactive mobile application for android and iOS
❑ **Burn & Breakdown Mode**
Burn Mode for uninterrupted insulation testing to find the breakdown region and Breakdown mode will stop generation of voltage on detection of high current
❑ **Internal Datalogging**
It has internal datalogging feature. It can log upto 2000 reading with customer information and time stamp
❑ **File Explorer**
It has file explorer to view the datalog file on TFT display
❑ **Audio Read-Out**
Audible test result on completion of test for awkward locations
❑ **Rechargeable Battery**
Li-Ion 3 Cell Battery with charging current of 1A
❑ **Selectable test time**
❑ We can set the test time to any desired test time from 15sec to 99 min 59 sec

www.kps-intl.com

INSUCHECK10000

10 kV INSULATION TESTER

Specification

Nominal Voltage	Maximum Resistance	Intrinsic Error
250V	50GΩ	5% ±10D
	500GΩ	20% ±10D
500V	100GΩ	5% ±10D
	1TΩ	20% ±10D
1000V	200GΩ	5% ±10D
	2TΩ	20% ±10D
2500V	500GΩ	5% ±10D
	5TΩ	20% ±10D
5000V	1TΩ	5% ±10D
	10TΩ	20% ±10D
10000V	2TΩ	5% ±10D
	20TΩ	20% ±10D

Test voltage accuracy
+7% ± 10V

Capacitance Measurement
1nF to 50uF; Accuracy +10% + 5 nF (upto 5kV)
1nF to 25uF; Accuracy +10% + 5 nF (above 5kV)
Insulation Leakage Current Measurement
0.01nA to 6mA; Accuracy +5% +0.2 nA
Guard terminal
2% error guarding 500 kΩ leakage, 100 MΩ load
Timer Range for IR test
Time: 15s ~ 99 min 59 sec with three programmable timers
Tests: IR(t),DAR,DD,PI,Step Voltage, Ramp voltaje

Ambient Conditions

Operating Temperature	-20 °C ... +50 °C
Storage Temperature	-20 °C ... +70 °C
Relative Humidity	max. 90% (condensation must be avoided)
Elevation	up to 2000m
Protection	IP 67 with closed case IP 40 with open case

Applicable Standards

Standard	Norms
IEC 61010-1	Safety regulations for electrical measurement, control, regulation and lab devices
IEC 61557	Measuring and monitoring facilities for testing the electrical safety in lines with nominal voltages up to AC1000V and DC1500V
PART-1	General
PART-2	Insulation resistance measuring devices

Reference Conditions

Ambient Temperature	+ 23 °C + 2K
Relative Humidity	45 ... 55%
Measured Quantity Frequency	50Hz ± 10Hz (for voltage measurements)
Line Voltage Waveform	Sine wave
Battery Voltage	14.8V ± 1%
Operating position	Horizontal
Power Supply Voltage (Mains)	230V ± 15%, 50/60Hz

Additional Error

Influence of EMC (IEC 61326-1)	IR: ±40D

Power Supply (Battery)

Battery	14.8V ,7.8Ah Li-ion
Battery service life	5.5 Hrs continuous testing at 100MΩ
Battery charging time	7 Hrs

Power Supply (Mains)

Nominal Power (Mains)	230V AC ± 15%, 50/60Hz

Electromagnetic Compatibility (EMC)
IEC61326-1

Immunity
IEC 61000-4-2 : 8 KV atmosphere discharge
4 KV contact discharge
IEC 61000-4-3 : 3 V/m

Electrical Safety

Overvoltage Category	600V CAT IV
Test Voltage	7.4kV~
Pollution degree	2

www.kps-intl.com

INSUCHECK10000

10 kV INSULATION TESTER

Mechanical Design
Dimensions (L x W x H) 360mm x 310mm x 195mm
Weight approx 5kg
Standard Scope of Supply
- ❑ 1 In built Li-ion rechargeable battery
- ❑ 1 Operating instructions
- ❑ 1 Power cord
- ❑ 1 USB cable for communication and software
- ❑ Test lead set with 3m test leads(+ve, -ve & Guard lead) with 3 clamps with large jaw opening
- ❑ User manual
- ❑ Calibration Certificate
- ❑ Carrying bag

Product Code Information	
SKU	KPSINSUCHECK10000CBINT
EAN code	8435394789774
UPC code	810053678961
Pcs/export carton	1

MGL Incorporated with MGL

EMEA
KPS EUMAN S.L.
C/ Picu Castiellu, Parcelas i1-i4
Argame, 33163, Asturias, Spain
info.emea@kps-intl.com

USA &CANADA
MGL America, Inc.
6509 Northpark Blvd Unit 400,
Charlotte, North Carolina 28216,USA
info.na@kps-intl.com

UNITED KINGDOM
Power Probe Group Limited
Warwick House Queen Street 65-66, London, England, EC4R 1EB UK
info.uk@kps-intl.com