



Digital insulation tester

$1105060 \times 1000 \times 10000 \times 10000 \times 10000 \times 10000 \times 10000 \times 10000 \times 100000 \times 10000 \times 10000 \times 10000 \times 10000000 \times 100$

Features

- Insulation resistances up to $5 \text{ T}\Omega$
- Automated tests: absorption index, polarization index
- Programmable pass-fail
- Real time clock
- Auto-range
- Guard terminal
- Digital & bar-graph reading
- Alphanumerical display
- Programmable timer
- Auto power-off
- Built-in printer
- USB interface
- Internal memory for 4,000 measured values
- Software for data management
- Powered by rechargeable LFP battery
- IP65 protection

LFP Rechargeable battery

Expected lifetime

2000 charge / discharge cycles (average).

Low self-discharge

When the equipment is not in use, battery charge decreases with time at a much lower rate than other battery technologies.

Safety

In contrast to other lithium battery technologies commonly used, LFP batteries are thermally and chemically stable, significantly improving battery safety.

Description

The MEGABRAS **MD5060x** is a smart, 5 kV insulation tester and analyzer. Besides the conventional measurement of insulation resistances up to 5 T Ω , its advanced features allow to automatically measure both the Polarization Index and Dielectric Absorption Index, thus significantly simplifying testing of transformers.

This insulation tester is a portable, rechargeable battery-powered equipment. Test voltage may be chosen from 500 V to 5 kV in 100 V increments. Due to its measurement principle (actual voltage and current readings) the accuracy of resistance measurement is not affected by any test voltage error.

The built-in chronometer automatically counts the elapsed time since the start of measurement. Measured values are transmitted through the USB interface and are printed in the built-in printer as a registration of the performed test. Furthermore, the measured values are stored in a non-volatile internal memory. Up to 4,000 measured values may be stored, to be transferred afterward to a computer running the MegaLogg 3 program. This software allows a further analysis of the test results, including a graphical representation and automatic report generation. The real time clock and calendar, and the sequential test number, facilitates the identification of each test, and the organization of a predictive maintenance system by trend analysis.

Some other advanced features are useful to run the most sophisticated insulation analysis. Step Voltage Test, configurable Pass-Fail and timed measurements are automatically performed. The measurement parameters are stored in the non-volatile memory for an easy configuration.

In order to guarantee the operator safety, the cabinet is made of a high breakdown strength plastic. High security output terminals are placed in the furthest and most protected area of the equipment. A light indicator shows high-voltage presence and is switched-off when the capacities (both internal and external) are discharged up to reaching a safe value.

MD5060x is powered using a rechargeable LFP battery. The cabinet is strong and lightweight, easy to carry, impact-resistant and suitable to be used under severe weather conditions. Thus the instrument supplies very reliable and accurate measurements both in laboratory and out in the field.





Technical specifications

| ELECTRICAL | MD5060x |
|--------------------------------------|---|
| Test voltage | 500 V, 1000 V, 2500 V, 5000 V directly, one button selectable. 500 V to 5 kV in 100 V or 500 V increments. DC, negative. |
| Test voltage accuracy | \pm 3 % of nominal test voltages on 10 G Ω |
| Maximum resistance reading | 5ΤΩ@ 5 kV |
| Equipment basic accuracy | ± 5 % of reading from 1 MΩ up to 1 TΩ ± 20 % of reading from 1 TΩ up to 5 TΩ |
| Short circuit current | 1.5 ± 0.5 mA |
| FEATURES | |
| Measuring modes | Manual, Timed, 'Pass / Fail', Step Voltage Test, Polarization Index and Dielectric Absorption Index |
| Filter function | Minimizes interference in resistance measurements |
| Built-in chronometer | Shows elapsed time in mm:ss format. Count starts automatically for each measurement |
| Display | Alphanumerical LCD display, 4 lines / 20 characters (Big Number) |
| Built-in printer | Prints elapsed time, actual voltage and resistance measured each 15 seconds. |
| Built-in memory | Capacity to store up to 4,000 measured values |
| Communication | USB |
| STANDARDS | |
| Overvoltage protection | CAT III - 600 V |
| Safety class | IEC 61010-1 |
| EMC | IEC 61326-1 |
| Electrostatic immunity | IEC 61000-4-2 |
| Electromagnetic irradiation immunity | IEC 61000-4-3 |

| SOFTWARE | |
|--------------------------------|--|
| Desktop (PC/Notebook) | Megalogg 3 software: to transfer the data stored in the equipment's memory, analyze it and generate test reports |
| ENVIRONMENTAL | |
| IP rating | IP65 (with closed lid) |
| Operating temperature | -10 °C to 50 °C |
| Storage temperature | -25 °C to 70 °C |
| Humidity range | 95 % RH (non condensing) |
| POWER SUPPLY | |
| Rechargeable battery | LFP, 12 V - 3000 mAh |
| Battery charger | AC Adapter (12 V - 2 A) |
| MECHANICAL (OF THE INSTRUMENT) | |
| Weight | Approx. 3.6 kg |
| Dimensions | 274 x 250 x 124 mm |

Included accessories

- 2x Measuring test lead
- GUARD test lead
- AC adapter
- USB cable
- User manual
- MegaLogg 3 software (download)
- Carrying bag



Desktop software

M MegaLogg **3**

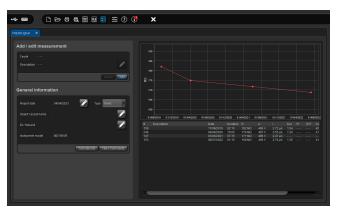
Software for generating reports MegaLogg 3 communicates with the equipment through a USB connection. Set the device's date / time, download internal memory and generate reports.



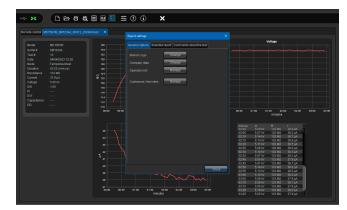
Available for download at: www.megabras.com/megalogg



Download internal memory



Trend analysis (insulation testers and micro-ohmmeters)



Report settings



Report generation



Global Presence

MEGABRAS equipment are used in more than 40 countries around the world



Test & Measurement equipment

Digital transformer ratiometer Earth ground testers Hipots Insulating glove tester Insulation testers Kilovoltmeters Micro-ohmmeters Power quality analyzers Vibration meter



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