

MD-5075x

5kV DIGITAL INSULATION TESTER

- ✓ MICROPROCESSOR-CONTROLLED
- ✓ INSULATION RESISTANCES UP TO 5 TΩ
- ✓ AUTO-RANGE
- ✓ DIGITAL & BARGRAPH READING
- ✓ AUTOMATED TESTS:
 - ABSORPTION INDEX
 - POLARIZATION INDEX
 - CAPACITANCE
 - LEAKAGE CURRENT
 - AC/DC VOLTMETER
- ✓ CHRONOMETER UP TO 90 MINUTES
- ✓ SWITCHABLE FILTER TO REMOVE EXTERNAL NOISE INTERFERENCE
- ✓ STEP VOLTAGE TEST
- ✓ REAL TIME CLOCK AND CALENDAR
- ✓ BUILT-IN PRINTER
- ✓ 4000 READINGS MEMORY
- ✓ USB INTERFACE
- ✓ SOFTWARE FOR DATA MANAGEMENT
- ✓ RECHARGEABLE BATTERY
- ✓ HIGH VOLTAGE INDICATOR
- ✓ AUTOMATIC DISCHARGE OF POTENTIAL



The digital insulation tester model MD-5075x is one of Megabras' cutting edge insulation analyzer equipment and it is one of the most complete and sophisticated available in the international market. A software allows for further analysis of tests results, including features such as graphical representation and automatic report generation. Its proven technology provides safe, reliable and accurate measurements of insulation resistances up to 5 TΩ, with 4 pre-selected test voltages, 500 V - 1 kV - 2.5 kV - 5 kV. Other test voltages (from 250 V up to 5 kV) may be selected in steps of 25 V, 100 V, or 500 V.

A state-of-the-art microprocessor controls the equipment operation and enables the incorporation of advanced features which make measurements easier: auto-range selection, 4000 readings memory, AC/DC voltmeter, automatic measurement of Absorption Index and Polarization Index, leakage current and capacitance measurement, timer enabling programming of test duration, configurable Pass-Fail test, Step voltage test, real time clock and calendar.

Built-in chronometer, indicating elapsed time, in minutes and seconds, since the test started, up to 90 minutes.

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 4000 measurements may be stored, to be transferred afterward to a computer running the MegaLogg2 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.

MD-5075x is powered using a rechargeable battery. The cabinet is strong and lightweight, easy to carry, impact-resistant and suitable to be used under severe weather conditions. Thus the insulation tester supplies very reliable and accurate measurements both in laboratory and out in the field.

MD5075x - TECHNICAL SPECIFICATIONS

TEST VOLTAGES

500 V - 1k V - 2.5 kV - 5 kV directly,
one button selectable.
Other test voltages (from 250 V up to 5 kV)
may be selected in steps of
5 kV in 25 V, 100 V or 500 V.
DC, negative.

MAXIMUM RESISTANCE READING

5 TΩ @ 1 kV up to 5 kV.
1 TΩ @ 500 V up to 1 kV.
500 GΩ @ 250 V up to 500 V.

DC VOLTMETER

10 V up to 1,000 Vdc.
Accuracy: $\pm(5\%$ of reading + 3 digits).

AC VOLTMETER

10 V up to 1,000 Vrms.
Accuracy: $\pm(5\%$ of reading + 3 digits).

OVERVOLTAGE CATEGORY

CAT. III - 600 V.

LEAKAGE CURRENT MEASUREMENT

1nA up to 3mA.
 $\pm(10\%$ of reading + 3 digits).

CAPACITANCE MEASUREMENT

50nF up to 10μF @ 500V.
50nF up to 5μF @ 1,000V.
30 nF up to 2μF @ 2,500V.
30 nF up to 1μF @ 5,000V.

Accuracy: $\pm 10\%$ of reading ± 3 digits.

SHORT CIRCUIT CURRENT

Max. 3 mA.

TEST VOLTAGES ACCURACY

$\pm 3\%$ of nominal test voltages on 10GΩ.

EQUIPMENT BASIC ACCURACY

$\pm 5\%$ of reading 1 MΩ to 1 TΩ @ 5 kV.
 $\pm 20\%$ of reading 1 TΩ to 5 TΩ @ 5 kV.
(for lower test voltages, the upper limit will be reduced
proportionally).
 $\pm 20\%$ of reading 10 kΩ to 100 kΩ.
 $\pm 10\%$ of reading 100 kΩ to 1 MΩ.

ADVANCED FEATURES

- Automated Polarization Index calculation.
- Automated Dielectric Absorption Ratio calculation.
- Programmable Pass-Fail test.
- Step Voltage Test.
- 4000 readings memory.
- Switchable filter to remove external noise interference.

BUILT-IN PRINTER

Prints elapsed time, actual voltage and resistance
measured each 15 seconds.

DATA OUTPUT

USB.

BUILT-IN CHRONOMETER

Shows elapsed time in mm:ss format. Count starts
automatically for each measurement.

MEGALOGG2 SOFTWARE

Friendly, easy to use software. Tests are represented in
graphic and tabular views. With automatic report generator,
including the operator's commentaries.

ENVIRONMENTAL PROTECTION

IP54 (with closed lid).

SAFETY CLASS

In accordance with IEC 61010-1.

E.M.C.

In accordance with IEC 61326-1.

ELECTRO MAGNETIC IRRADIATION IMMUNITY

In accordance with IEC 61000-4-3.

ELECTROSTATIC IMMUNITY

In accordance with IEC 61000-4-2.

POWER SUPPLY

Internal rechargeable battery (LiFePO4 12.8 V - 6000 mAh).

BATTERY CHARGER

12 V - 2 A.

OPERATING TEMPERATURE RANGE

-5°C to 50°C.

STORAGE TEMPERATURE RANGE

-25°C to 65°C.

HUMIDITY RANGE

95% RH (non condensing).

WEIGHT

Approx. 4.3 kg.

DIMENSIONS

340 x 295 x 152 mm.

INCLUDED ACCESSORIES

- 2 Measuring test leads.
- 1 GUARD test lead.
- 1 AC Adapter.
- 1 USB cable.
- 1 Protective bag.
- 1 User guide.
- 1 MegaLogg2 software.

Subject to technical change without notice. This catalogue is not a contractual document.



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