Accessible version (HTML): amperis.com/en/accesible/brochure-amic-2505/

AMIC-2505

Insulation resistance meters

Test voltages of 500, 1000 and 2500 V with measurements up to 2 TΩ

AMIC-2505

2.5 kV insulation resistance meter

amperis

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Insulation resistance up to 2 TΩ with rotary-switch simplicity and leakage current reading.

Product overview

The AMIC-2505 with its rotary switch and backlit display

Three voltages, two teraohms

The AMIC-2505 measures insulation resistance with test voltages of 500, 1000 and 2500 V and a nominal current of 1 mA, reaching 500 GΩ, 1 TΩ and 2 TΩ respectively with an accuracy of ±(3% m.v. + 20 digits). Every mode and voltage is selected with the rotary switch — the fastest way through long series of measurements.

Diagnosis beyond the reading

During the test the meter shows the real test voltage and, continuously, the insulation resistance or the leakage current. The T1, T2 and T3 times over the 15, 60 and 600 s range deliver one or two absorption coefficients, an acoustic signal marks five-second intervals, and the two- or three-lead method diverts the surface current of contaminated insulation.

Main features

- Continuous indication of insulation resistance or leakage current.
- Automatic discharge of the object capacitance after each test.
- Protection against measurement of live objects.
- AC and DC voltage measurement from 0 to 600 V (45…65 Hz).
- PC communication supported through the optional USB cable.
- Maximum short-circuit current of 1.4 mA ±15%.

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Applications and safety

Applications

- Insulation testing of power and control cables.
- Motors, transformers and switchgear in LV and MV.
- Periodic verification programmes in industrial maintenance.
- Residual voltage and leakage current checks.

Ready for the field

Rated CAT IV 600 V (CAT III 1000 V) with double insulation to EN 61010-1 and the EN 61557 series, the AMIC-2505 runs on a 9.6 V NiMH battery pack with mains charger. The IP54 housing, 260 × 190 × 60 mm and 1.3 kg travel light, and the 5 kV leads, probes and crocodile clips of the standard set withstand every test voltage.

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The readings travel from the meter to the computer for archiving and documentation.

Software & applications

The documentation software manages reports, inspectors, test points and downloaded data

Preview of a verification report of the installation, ready to print or export

Readings on the PC

The AMIC-2505 supports communication with a computer through the optional USB cable. The free PC reader software downloads the measured values, keeps them organised by client, site and measuring point, and exports them to popular formats for further processing.

From measurement to document

Each insulation test — with its voltage, resistance, leakage current and absorption coefficients — becomes part of a structured archive, so periodic verifications can be compared over the years and printed as part of the maintenance documentation.

What the software provides

- Download of the results through the USB connection.
- Archive organised by clients, sites and measuring points.
- Export to popular formats and printing.
- Comparison of periodic measurements of the same object.

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AMIC-2505 — MEASUREMENT DATA

Insulation resistance measurement

Display range	Resolution	Accuracy
0.0…999.9 kΩ	0.1 kΩ	±(3% m.v. + 20 digits)
1.000…9.999 MΩ	0.001 MΩ	±(3% m.v. + 20 digits)
10.00…99.99 MΩ	0.01 MΩ	±(3% m.v. + 20 digits)
100.0…999.9 MΩ	0.1 MΩ	±(3% m.v. + 20 digits)
1.000…9.999 GΩ	0.001 GΩ	±(3% m.v. + 20 digits)
10.00…99.99 GΩ	0.01 GΩ	±(3% m.v. + 20 digits)
100.0…999.9 GΩ	0.1 GΩ	±(3% m.v. + 20 digits)
1.000…2.000 TΩ	0.001 TΩ	±(3% m.v. + 20 digits)

Measuring range per IEC 61557-2: up to 2.000 TΩ (I_{ISOnom} = 1 mA). Two-lead measurement.
Maximum short-circuit current: I_{SC} = 1.4 mA ±15%.
"m.v." = measured value

Measured resistance vs. test voltage

U_{ISO} voltage	Measuring range
500 V	500 GΩ
1000 V	1.000 TΩ
2500 V	2.000 TΩ

DC and AC voltage measurement

Range	Resolution	Accuracy
0…600 V	1 V	±(3% m.v. + 2 digits)

Frequency range: 45…65 Hz.

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AMIC-2505 — TECHNICAL SPECIFICATIONS

Type of insulation	Double, per EN 61010-1 and IEC 61557
Measurement category	CAT IV 600 V (CAT III 1000 V)
Ingress protection	IP54, per EN 60529
Power supply	9.6 V NiMH battery pack; Z-7 mains charger
Data transmission	PC communication via optional USB cable
Display	LCD
Dimensions	260 × 190 × 60 mm
Weight	1.3 kg
Standards	EN 61557, EN 61010-1
Quality standard	ISO 9001

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