AMIC-30

Insulation resistance meters

Any test voltage from 50 to 1000 V in 10 V steps, up to 100 GΩ

AMIC-30

1 kV insulation resistance meter

amperis

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A pocket-sized megohmmeter with 10 V voltage steps, continuity testing and an IP67 housing.

Product overview

Continuity testing with the AMIC-30 inside a distribution cabinet

The right voltage for every circuit

The AMIC-30 measures insulation resistance up to 100 GΩ with fixed voltages of 50, 100, 250, 500 and 1000 V or any value in between in 10 V steps — electrical, control, telecommunication and ICT circuits are always tested at their own voltage. The basic accuracy is ±(3% m.v. + 8 digits) and the actual test voltage is shown during the measurement.

Four instruments in the hand

Besides insulation with T1, T2 and T3 timing for absorption coefficients, the meter tests continuity of protective conductors with more than 200 mA in both directions per EN 61557-4, measures AC and DC voltages up to 600 V, the capacitance of the object up to 10 µF and the leakage current through the third GUARD terminal. The UNI-Schuko adapter configures the tested pairs directly at the socket.

Main features

- Memory of 990 cells with wireless transmission to the PC.
- Continuous reading of insulation resistance or leakage current.
- Automatic discharge of the object after each test.
- Protection against measurement of live objects.
- Capacitance measured during the R_{ISO} test.
- CAT IV 600 V safety and an IP67 housing.

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Applications and delivery

Applications

- Installations of single- and multi-family buildings and public facilities.
- Cables, motors and appliances in workshops and small plants.
- Telecommunication and ICT circuits tested at low voltages.
- Floors and walls with the optional PRS-1 probe.

Small, sealed, self-sufficient

Four AA batteries power the meter, the IP67 housing shrugs off dust and moisture from -10 to +50 °C, and 200 × 100 × 60 mm and about 0.6 kg disappear into the tool bag. The standard set includes shielded and standard leads, probes, a crocodile clip, carrying case, straps and a factory calibration certificate.

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The 990-cell memory empties wirelessly into the PC reader software.

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

Wireless download

The results stored in the 990 memory cells of the AMIC-30 are transmitted to the computer through the supplied wireless USB receiver — no cable between the meter and the PC. The free reader software receives, archives and prints the measurements.

Order in repeated testing

For technicians who test dozens of circuits a day, the software keeps every insulation, continuity and capacitance reading identified by object and date, ready to compare with previous inspections and to attach to the verification records.

What the software provides

- Wireless reception of the stored results.
- Archiving by clients, sites and measuring points.
- Printing and export to popular formats.
- History of periodic measurements of each installation.

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AMIC-30 — MEASUREMENT DATA

Measuring ranges per test voltage (IEC 61557-2)

U_N	Measuring range
50 V	50 kΩ...250.0 MΩ
100 V	100 kΩ...500.0 MΩ
250 V	250 kΩ...2.000 GΩ
500 V	500 kΩ...20.00 GΩ
1000 V	1000 kΩ...100.0 GΩ

Continuity test with >200 mA current

Range	Resolution	Accuracy
0.00...19.99 Ω	0.01 Ω	±(2% m.v. + 3 digits)
20.0...199.9 Ω	0.1 Ω	±(2% m.v. + 3 digits)
200...1999 Ω	1 Ω	±(4% m.v. + 3 digits)

Measuring range per EN 61557-4: 0.10...1999 Ω.

DC and AC voltage measurement

Range	Resolution	Accuracy
0...299.9 V	0.1 V	±(2% m.v. + 6 digits)
300...600 V	1 V	±(2% m.v. + 2 digits)

Frequency range: 45...65 Hz.

Low-current resistance measurement

Range	Resolution	Accuracy
0.00...199.9 Ω	0.1 Ω	±(3% m.v. + 3 digits)
200...1999 Ω	1 Ω	±(3% m.v. + 3 digits)

"m.v." = measured value

Insulation resistance measurement

Range	Resolution	Accuracy
0.0...999.9 kΩ	0.1 kΩ	±(3% m.v. + 8 digits) [±(5% m.v. + 8 digits)]*
1.000...9.999 MΩ	0.001 MΩ	±(3% m.v. + 8 digits) [±(5% m.v. + 8 digits)]*
10.00...99.99 MΩ	0.01 MΩ	±(3% m.v. + 8 digits) [±(5% m.v. + 8 digits)]*
100.0...999.9 MΩ	0.1 MΩ	±(3% m.v. + 8 digits) [±(5% m.v. + 8 digits)]*
1.000...9.999 GΩ	0.001 GΩ	±(4% m.v. + 6 digits) [±(6% m.v. + 6 digits)]*
10.00...99.99 GΩ**	0.01 GΩ	±(4% m.v. + 6 digits) [±(6% m.v. + 6 digits)]*
100.0 GΩ (U_N = 1000 V)	0.1 GΩ	±(4% m.v. + 6 digits) [±(6% m.v. + 6 digits)]*

Values in brackets: with the WS-04 adapter (** up to 10 GΩ).

Capacitance measurement

Range	Resolution	Accuracy
1...999 nF	1 nF	±(5% m.v. + 10 digits)
1.00...9.99 µF	0.01 µF	±(5% m.v. + 10 digits)

Result displayed after the R_{ISO} measurement; below 100 V and 10 MΩ the error is unspecified.

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AMIC-30 — 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	IP67, per EN 60529
Power supply	4 × AA alkaline batteries or NiMH accumulators
Memory of results	990 cells
Data transmission	Wireless link (USB receiver)
Display	Segment LCD, backlit
Operating temperature	-10…+50 °C
Dimensions	200 × 100 × 60 mm
Weight	approx. 0.6 kg
Standards	EN 61557
EMC requirements	EN 61326-1, EN 61326-2-2
Quality standard	ISO 9001

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