

IBAR

Battery testers



IBAR

Internal resistance, cell voltage and inter-cell connections in two seconds

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Battery internal resistance tester

amperis

www.amperis.com

 C/ María Barbeito, 14
27003, Lugo, Spain

 **Contact**

T [+34] 982 20 99 20
info@amperis.com | www.amperis.com

Quick diagnosis of the state of health of stationary batteries.

Product overview



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Front panel: LCD display and one-hand keypad

Battery health in two seconds

This handheld tester measures the internal resistance, the cell voltage and the resistance of the inter-cell connections of stationary batteries taken fully offline, disconnected from both the charger and the load. Readings are taken in about two seconds with the included pin probes.

Automatic thresholds and verdict

The user defines thresholds or tolerance ranges; during the test every measurement is automatically compared and flagged PASS, WARNING or FAIL. Everything is stored in the internal memory for later analysis.

Main features

- Resistance range from 0 to 5 Ω with automatic range detection.
- Voltage measurement up to ± 60 V.
- Light and handheld: 0.5 kg with a rechargeable Li-Ion battery.
- Combined voltage and resistance mode (U+R) in one pass.
- Internal memory for the measurements, time- and date-stamped.
- Straight or angled pin probes and zero calibration board.



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Applications and software



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Top view: connection of the four-wire measuring probes

Applications

- Periodic verification of the condition of stationary batteries.
- Flooded lead-acid, VRLA, nickel-cadmium or lithium batteries.
- Inter-cell connection resistance to detect loose or corroded links.
- Acceptance tests, commissioning and maintenance inspections.
- Support during capacity tests by measuring each cell voltage.

PC software for control and analysis

Results are downloaded over USB to the included PC software, which compares historical measurements, builds per-cell trends with user-defined limits and generates reports in PDF, Word or RTF, with export to Excel.

Offline batteries

Measurements are performed with the battery disconnected from the charger and the load, which removes rectifier ripple and makes the readings repeatable and comparable between inspections.



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IBAR – MEASUREMENT DATA

Range	Resolution	Test current	Typical accuracy
Resistance: < 5 mΩ	1 μΩ	150 mA	±1.0% rdg ±0.1% FS
Resistance: 5 – 50 mΩ	10 μΩ	150 mA	±0.8% rdg ±0.1% FS
Resistance: 50 – 500 mΩ	100 μΩ	15 mA	±0.8% rdg ±0.1% FS
Resistance: 0.5 – 5 Ω	1 mΩ	1.5 mA	±0.8% rdg ±0.1% FS
Voltage: ±6 V	1 mV	—	±0.1% rdg ±0.1% FS
Voltage: ±60 V	10 mV	—	±0.1% rdg ±0.1% FS

Measurements on batteries disconnected from the charger and the load; automatic resistance range detection.
Specifications valid at +25 °C. The manufacturer reserves the right to change them without prior notice.

IBAR — TECHNICAL SPECIFICATIONS

Type	Handheld battery internal resistance tester
Internal battery	Li-Ion, 2 cells of 2900 mAh, 7.4 V; 6-hour charge
Mains adapter	90 – 264 V AC, 50/60 Hz; 12 V DC, 1 A output
Display	2.8-inch FSTN LCD, 128 × 64 dots
Communication	USB to PC
Memory	Internal, 64 Mbit, with real-time clock
Operating temperature	-10 to +45 °C
Relative humidity	Up to 95% (up to 31 °C), non-condensing
Dimensions	236 × 125 × 50 mm
Weight	0.5 kg
Safety and EMC	EN 61010-1; EN 61326-1; installation category II
Included	Case, probes, zero calibration board and PC software



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