



EK-H755 Battery Internal Resistance Tester



Product Function

Instrument for measuring the internal resistance, voltage, and temperature of batteries such as lead-acid, nickel-cadmium, nickel-metal hydride, and lithium batteries to assess battery health status.

Product Features

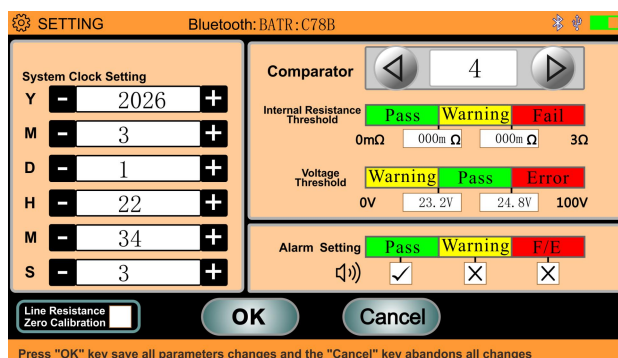
1. Employs Kelvin AC 4-wire measurement method, eliminating the influence of lead resistance or contact resistance to obtain accurate internal resistance values.
2. Simultaneously displays resistance, voltage, and temperature for clear, at-a-glance test results.
3. Utilizes 1kHz AC testing method, requiring no interruption of power supply from the battery to other equipment.
4. Comparator function allows setting of internal resistance and voltage thresholds for simplified battery aging assessment.
5. Filter function stabilizes and refines test readings when activated.
6. Equipped with both pin-type and clamp-type test leads to accommodate different application scenarios.
7. Bluetooth communication enables viewing and recording of test results on mobile devices.
8. PC upload function via USB interface facilitates transfer of test data to a computer for storage and analysis.

Comparator Function

As a battery ages with use, its internal resistance gradually increases. When the internal resistance reaches 1.5 to 2 times that of a new battery, the battery can be deemed aged. By setting internal resistance and voltage thresholds in the comparator, the aging status of the battery can be determined based on test values.

Example: For a given battery model with a new internal resistance of 0.5 mΩ and a voltage of 12 V:

Parameter	New Battery	In Use	Aged Battery
Internal Resistance	0.5 mΩ	0.75 mΩ (1.5 times new)	1.0 mΩ (2 times new)
Voltage	12 V	10.8 V (90% of new)	9.6 V (80% of new)
Judgment	PASS	WARNING	FAIL



Measurement Accuracy

1. Resistance Measurement Accuracy

Range	Maximum Display	Resolution	Accuracy	Measuring Current
3 mΩ	3.100 mΩ	1 μΩ	±(1.0%rdg + 8dgt)	200 mA
30 mΩ	31.00 mΩ	10 μΩ	±(0.8%rdg + 6dgt)	20 mA
300 mΩ	310.0 mΩ	100 μΩ		2 mA
3 Ω	3.100 Ω	1 mΩ		2 mA





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2. Voltage Measurement Accuracy

Range	Maximum Display	Resolution	Accuracy
7 V	± 7.100 V	1 mV	$\pm(0.08\%rdg + 6dgt)$
100 V	± 100.00 V	10 mV	$\pm(0.08\%rdg + 6dgt)$

3. Temperature Measurement Accuracy

Range	Maximum Display	Resolution	Accuracy
-10.0°C to 60.0°C	60.0°C	0.1°C	$\pm 1.0^\circ\text{C}$

Technical Specification

Power Supply	DC 7.4V, 2600mAh Lithium battery
Display Screen	5-inch true color LCD touch screen; 480×854 resolution
Measurement Range	Internal Resistance: 0.000 mΩ to 3.100 Ω
	Voltage: 0.000 V to 100.00 V
	Temperature: -10.0°C to 60.0°C
Maximum Input Voltage	DC 100 V (between + and - measurement terminals); AC input not permitted
Measurement Method	Internal Resistance: 1 kHz AC 4-terminal test method; open-circuit terminal voltage 3 V max Measuring Current: 2.0 mA to 200 mA (varies by range) Temperature: NTC temperature sensor (10 kΩ at 26°C) A/D Conversion: Successive approximation type Display Update Rate: 5 times/second
Response Time	200 ms
Power Consumption	300 mA MIN / 500 mA MAX
Dielectric Withstand Voltage	AC 3700 V/RMS (Between circuit and enclosure)
Comparator Function	Yes, internal resistance and voltage thresholds can be set
Noise Avoidance Frequency	920 Hz to 1080 Hz (Auto frequency conversion)
Lead Resistance Zero Adjustment	Yes
Hold and Storage Function	Manual hold/storage and automatic hold/storage available
Storage Capacity	26 groups (A to Z), 1000 records per group; Total 26,000 records
Measurement Judgment Function	PASS, WARNING, FAIL thresholds can be preset
Battery Voltage Indicator	5-bar battery level display; low battery warning prompt
Auto Power Off	Automatically powers off after approx. 15 minutes of inactivity
USB Communication	USB interface; with PC software, stored data can be uploaded to computer for storage, analysis and printing.
Bluetooth Communication	Bluetooth interface; with mobile APP, stored data can be uploaded for storage, analysis.
Meter Dimensions	263 mm × 152 mm × 74 mm
Meter Weight	Approx. 2.4 kg (including accessories)
Operating Temperature & Humidity	-10°C to 40°C; below 80% RH
Suitable Safety Standard	IEC 61010
Accessories	Meter: 1 pc; Pin-type test lead: 1 set; Clamp-type test lead: 1 set; USB communication cable: 1 pc; Temperature test lead: 1 pc; Power adapter: 1 pc; Tool kit: 1 pc

