KUSAM-MECO®
An ISO 9001:2015 Company

BATTERY INTERNAL RESISTANCE TESTER

THINK SAFETY
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MODEL- KM 930

■ PRODUCT INTRODUCTION

General rechargeable battery internal resistance tester Abbreviation: battery internal resistance tester. It is a measuring instrument used to measure the internal resistance, voltage and temperature of rechargeable batteries such as lead storage batteries and l ithium batteries to determine the health of the battery. It can also be used as a meter to measure the ESR parameters of electrolytic capacitors (for reference only).This meter uses the AC 4-terminal test method to measure the internal resistance of the battery, and can measure the correct measurement value without being affected by the contact resistance between the test wire, terminal and battery electrode. It also has functions such as data storage, data access, alarm, and automatic shutdown. The whole machine is high-grade and beautiful, with wide measuring range, high resolution, convenient operation, easy to carry, accurate, reliable, stable performance, and strong anti-interference ability. It is an indispensable instrument for battery production, battery installation, equipment production, equipment maintenance and other scenarios.



Preliminary Data

General rechargeable battery internal resistance tester controlled by a microprocessor, the internal 16-bit ADC can accurately detect battery internal resistance, voltage and temperature. It is characterized by measuring without stopping the UPS system, using AC low-resistance measurement and noise reduction technology, without stopping the normal operation of the device under test, and measuring under the running state, which greatly shortens the test time.At the same time, it has the functions of data storage, histogram display, data upload, computer, mobile phone, tablet and other smart devices Bluetooth connection for wireless measurement and data access.



■ RANGE AND ACCURACY

1. Resistance measurement accuracy

Range	Maximum display	Resolution	Accuracy	Measuring current
3 mΩ	3.100 mΩ	1 uΩ	±(1%fs + 20dgts)	200 mA
30 mΩ	31.00 mΩ	10 uΩ	±(0.5%fs + 15dgts)	200 mA
300 mΩ	310.0 mΩ	100 uΩ		20 mA
3 Ω	3.100 Ω	1 mΩ		2 mA

2. Voltage measurement accuracy

Range	Maximum display	Resolution	Accuracy
7 V	± 7.100 V	1 mV	±(0.2%fs + 10dgts)
70 V	± 71.00 V	10 mV	

3. Temperature measurement accuracy

Range	Maximum display	Resolution	Accuracy
-10.0℃~60.0℃	60.0℃	0.1℃	±1.0℃

All Specifications are subject to change without prior notice.

■ TECHNICAL SPECIFICATIONS

Function	Battery internal resistance measurement, battery voltage measurement, temperature measurement
Accuracy guaranteed temperature and humidity	23℃±5℃, below 75%rh
Power supply	DC 3.7V lithium battery
Resistance resolution	1 u Ω
Voltage resolution	1 mV
Temperature resolution	0.1℃
Measuring range	Internal resistance measurement:0.000mΩ~3.100 Ω （4 ranges configuration）
	Voltage measurement: 0.000V~±71.00V (consisting of 2 ranges)
	Temperature measurement: -10.0℃~60.0℃ (single range configuration）
Maximum input voltage	DC 70V (between + measurement terminal and-measurement terminal), no AC input
Measurement method	Internal resistance measurement: 1KHz AC 4-terminal test method, open-circuit terminal voltage 3V max Measuring current: 2.0mA~200mA (different measuring currents in different ranges) Temperature measurement: NTC temperature sensor (10KΩ at 26°C) A/D conversion method: successive approximation type Display update frequency: 5 times/second
Response time	200ms
Measure time	About 2 seconds
LCD Size	70.1mm×52.6mm /3.5 inches (320*240 resolution 16-bit true color screen)
Instrument size	190mm×121mm×51mm
USB interface	With a USB interface, the stored data can be uploaded to the computer, saved and printed
Bluetooth connection	Yes
Hold and store function	Manual retention and storage, automatic retention and storage
Measurement judgment function	Pre-set PASS, WARNING, FAIL judgment thresholds
Battery voltage	The battery level is displayed in 5 bars, reminding to charge in time when the battery voltage is low
Automatic shut-down	No operation when power on, it will power off automatically after about 15 minutes (can be turned off in the settings)
Power consumption	300mA MIN / 500mA MAX
Weight	Meter：480g (With battery)
Working temperature and humidity	-10℃～40℃；below 80%RH
Storage temperature and humidity	-20℃～60℃；below 70%RH
Insulation resistance	Above 20MΩ (500V between circuit and case)
Withstand voltage	AC 3700V/RMS (between circuit and case)
External magnetic field	< 40A/m
External electric field	< 1V/m
Suitable for safety regulations	IEC 61010
Accessories	Test leads, USB cable, Charger, Software CD, Instruction Manuals, Instruments box

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