



Preface

The common rechargeable batteries include lithium batteries, nickel cadmium batteries, nickel hydrogen batteries, and sealed lead-acid batteries. Among them, lithium battery has the characteristics of large capacity, light weight and high cycle times. It is widely used in mobile phones, PDA, digital cameras, camcorders, notebook computers and other fields. Is currently the most advanced rechargeable battery, referred to here is the finished lithium battery lithium battery pack by lithium batteries (lithium ion batteries or Li polymer batteries) and lithium battery protection board. Nickel cadmium battery is a relatively early application of rechargeable battery. It has the characteristics of low cost, low internal resistance and high current discharge. So far, it has been widely applied in some electric tools and electric cars.

Similar NiMH battery and nickel cadmium battery, but because they do not contain heavy metals, so the environmental pollution is small, at present in some common consumer electronic products have been widely applied in fields of application, has replaced the previous nickel cadmium batteries. Small sealed lead-acid battery, also known as maintenance free lead-acid electric he, at present mature technology, mainly used in fixed backup power applications, such as uninterruptible power supply, emergency lighting and so on.

In view of the requirements for the production and detection of these rechargeable batteries, a special integrated battery tester for rechargeable batteries has been developed. This tester can make a quantitative and accurate measurement of some basic parameters of the battery. The open circuit voltage, internal resistance, charging, discharge performance of the battery can be measured. Battery capacity is especially aimed at the function of lithium battery. It also has the functions of charging protection, over discharge protection, over current protection, short circuit protection, etc., and has measured the corresponding value, which greatly facilitates the production and pre-sale and after-sales service of battery. A few simple steps can be used to intuitively judge the performance and quality of the battery. At the same time, it also has the function of quick screening. It can set the upper and lower limits of measurement parameters. It can quickly detect the bad battery from a batch of battery products and improve the production efficiency. In addition, some special functions have been added to enable them to have some characteristics of universal instruments and equipment, expand the flexibility of the equipment, and have a wide range of applications.

Besides, this tester can provide software upgrade services according to the needs of customers. On the basis of basic models, it can upgrade to software that can be connected to computers based on basic models, and can set up and save test data by computer, and automatically record test results. The battery bar code can also be used to record the test data of each battery, which is beneficial to the analysis and control of production quality, the recovery of the products, and so on. In addition, the test accuracy of voltage and resistance can be increased by an order of magnitude by adding a hardware upgrade module to meet the more stringent quality requirements.

The basic functions of the JK5530 battery comprehensive tester include:

1. The static parameters of the battery are detected quickly.
 - 1.1 Battery voltage detection (for a lithium battery that has been in a protected state, it can automatically wake up)
 - 1.2 Battery internal resistance detection
 - 1.3 Battery charge performance detection
 - 1.4 Detection of battery discharge performance
 - 1.5 Detection of battery overcurrent size (only for lithium batteries)
 - 1.6 Detection of battery short circuit protection function (only for lithium battery)
 - 1.7 The above can be detected in the part of the value size, and the upper and lower limits can be set to be screened quickly.
2. Battery capacity detection.
3. The battery charging function can be selected separately.
4. The battery discharge function can be selected separately.
5. The function of the numerical control current and voltage source.
6. Numerical control electronic load function.
7. Function of voltage and internal resistance meter
8. Instrument calibration function

Technical parameter

Model		JK5530	JK5530B
measuring range	Range of battery voltage measurement	0-36V, Minimum resolution 10mV accuracy:±30mV	0-60V, Minimum resolution 10mV accuracy:±5mV
	Range of internal resistance measurement	0-999mΩ, Minimum resolution 1mΩ	0-1999mΩ, Minimum resolution 1mΩ
	Capacity measurement range	0-10000mAH, Minimum resolution 1mAH	
measurement accuracy	Accuracy of voltage measurement	± (result*0.1%+3mV) (voltage 0~36V) ± (result*0.1%+30mV) (voltage 37~60V)	
	Accuracy of current measurement	± (result *0.2%+30mA) (current 0~10A) ± (result *0.5%+30mA) (current 11~30A)	
	Accuracy of internal resistance measurement	± (result *1%+1mΩ)	
	Accuracy of battery capacity measurement	10AH :±2%	100AH: ±2%
Test speed	Static test (test all functions)	1.1-2 seconds	
	Capacity test (1C current charge and discharge)	3-4 hours	
Internal numerical control voltage source index	Maximum output voltage	20v	60v
	Maximum output current	5A	5A(routine) / 10A (Need customization)
	Maximum output power	80W	200W
	Ripple voltage	<20mV	<100mV
	Load adjustment rate	<10%	
	response time	1S	
Internal numerical control electronic load index	Ceiling voltage		
	Maximum discharge current	10A (continuity) 15A (10 second)	30A(continuity) 60A(Need to be customized)
	Limit power	50W (continuity) 80W (10 second)	200W (continuity)
	supply voltage	220V ± 10%50Hz	
U disk storage		no	yes
communication interface		no	yes (with Host computer software)
Accessories		Kelvin clip test line, test probe	
Size and weight		Upper frame size (mm):215(w)*88(H)*335(D) Shape size (mm):235(w)*105(H) *360(D), about 3.6kg	