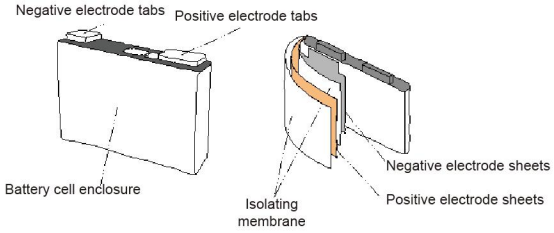
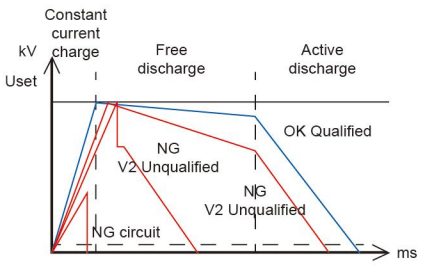
Pulse Lithium Battery Cell Short Circuit Tester
ANBTS7201(F) Series

Product Overview

Based on the first generation Pulse Battery Cell Short Circuit Tester in 2012,the second generation ANBTS7201(F) Series Pulse Lithium Battery Cell Short Circuit Tester from Ainuo Instrument Co., Ltd., by adopting a new generation test method of constant current charge, free discharge, and constant current discharge to monitor the slight voltage drop in real time and throughout the process, can effectively detect insulation short circuits, micro short circuits, low insulation resistance, etc. in unqualified and suspicious Lithium battery cells caused by damage, folds, perforation, foreign objects, burrs, etc., on the isolating membrane.

ANBTS7201(F) Series are widely applied in such processes as stacking, winding, cell assembly and before injection, applicable for insulation performance testing between the positive and negative electrode sheets of lithium battery cells, as well as between the positive and negative electrode tabs and the battery cell shell before injection under 0.1uF-100uF static capacity.





Features

- **Five-in-one:** pulse short circuit test, insulation resistance test,BDV test, capacitance test, weak conductive resistance test
- **Fast:** Maximum 50mA constant adjustable charge mode, maximum 30mA constant adjustable discharge mode, multiple channel test
- **Wide range:** 25V-2000V voltage, 2kΩ-100GΩ insulation resistance test, excellent repeatability in lithium battery cell insulation resistance test
- **Data storage:** local test data and waveform storage, supporting to export to USB
- **Easy to use:** Small in size, with rich interfaces and simple operation, suitable for testing on lithium battery cell automated production lines

Figure 1\2 Test process of qualified and unqualified 5uF batery cell under 100V voltage (voltage rise time 54ms)

Specifications

Model		ANBTS7201-R(F)	ANBTS7201-3R(F)
Functional configuration		Pulse short circuit, insulation resistance, single channel test	Pulse short circuit, insulation resistance, three-channel scanning
Pulse short circuit test	Output voltage	Range: (50~ 1000)VDC,Resolution 1V,Error ±(1% x setting value+5V); [optional 2000V output]	
	Charge and discharge modes	Maximum 50mA constant current charge, maximum 30mA constant current discharge	
	Test time	Charging time TK, discharging time TF; Range: 50ms～3000ms; Resolution: 1ms;Error ±(0.5% setting value +2ms)	
	Judgment parameters	Rise fall V1 (0-100%), hold fall V2 (0-100%), discharge fall V3 (0-100%), resolution 0.1V	
	Cell static capacity	100nF-100,000nF	
Insulation resistance test	Output voltage	Range: (25-1,000)VDC, resolution: 1V, Error ±(1% x setting +2V)	
	Insulation resistance measurement	25V-100V: 0.002MΩ-499.9MΩ: ±(5%×Reading value+2 digits) 101V-499V: 0.010MΩ-199.9MΩ, ±(2%×Reading value+2 digits); 200.0MΩ-2.000GΩ: ±(5%×Reading value+2 digits) 500V-1,000V: 0.020MΩ-999.9MΩ, ±(2%×Reading value+2 digits); 1.000GΩ-9.999GΩ: ±(5%×Reading value+2 digits) 10.00GΩ-49.99GΩ: ±(15%×Reading value); 50.00GΩ-99.99GΩ: ±(20%×Reading value)	
	Test time	Range: 0, (0.5-999.9)s, 0 is infinite, resolution: 0.1s, Error: ±(0.1%×setting value+2 digits)	
	Ramp up time	Range: 0, (0.1-999.9)s, 0 represents ramp-up disabled, resolution: 0.1s, Error: ±(0.1%×setting value+2 digits)	
	Ramp down time	Range: 0, (1-999.9)s, 0 represents ramp-down disabled, resolution: 0.1s, Error: ±(0.1%×setting value+2 digits)	
	Upper/lower limit	Range: 0.002MΩ-99.99GΩ, 0 indicates no upper limit setting	
	Charge and discharge modes	Maximum 50mA constant current charge maximum 30mA constant current discharge	
Other specifications	Power supply	AC220V±10%, 47-63Hz	
	Display operation	LCD, 5 inch color display, touch screen	
	Output interface	RS232C, LAN, PLC USB (data storage via USB flash drive)	
	Dimensions (W×H×D mm)	213×88×360	