Lithium Battery Assembly and Sorting Production Line

01 | Automatic Battery Labeling Machine

1.Power Supply: Single-phase ~220V, 50Hz
2.Rated Power: 1.5KW
3.Pad Material: Barley paper or PVC material
4.Material Specifications: Maximum width of barley paper roll: 100MM; total paper thickness: 0.3MM; maximum diameter of barley paper roll: 350MM; inner diameter of paper core: 72-75MM.
5.Customizable automatic application of barley paper or PVC material to the positive or negative terminals of the battery cells.
6.Feeding Method: Battery cell hopper, 500 PCS can be fed at a time.
7.Operating Air Pressure: 0.4-0.8Mpa
8.Pad Pressing Power: Pneumatic (Airtac).
9.Control Devices: 7.0-inch touch screen, PLC programmer, and servo motor.
10.Efficiency: 4500-4800 PCS/hour; single pad pressing of 18650 battery cells. 4 PCS, 21700, 26650, 32650 single-pass pads 3 PCS
11.Overall dimensions (LxWxH): 1000x700x1630MM
12.Machine weight: Approx. 200Kg
13. Die: Slow wire EDM, high precision, dies are coated once every 6000-8000 to remove water.

02 | Automatic Battery Sorting Machine Series

FX05S lithium battery sorting machine  General 14650 18650 21700 26650 32650	1.Equipment Power Supply: Single-phase ~220V±10%/50Hz±10%, Power <300W 2.Display Results: 7.0-inch LCD/Touch Screen 3.Operating Air Pressure: 0.4-0.7Mpa 4.Battery Cells Used: 14650/18650/21700/26650/32650/32700 5.Receiving Channels: 4 sorting and grouping channels, 1 non-conforming product channel; sorting values for each channel can be arbitrarily set. 6.Test Parameters: AC internal resistance, DC voltage. 7.Internal Resistance Measurement: Range 10μF 2-3.2k2, accuracy ±0.5%rdg, resolution 0.01mO2. 8.Voltage measurement: range 0-60V, accuracy ±0.015%rdg, resolution 0.1mV. 9.Sorting speed: 4000-4500 pieces/hour, 1 piece per test. 10.Internal resistance meter: precision HK3561 internal resistance meter (optional, compatible with Hikari/Nippon Electric). 11.Can be used with automatic sticker machines, saving labor. 12.Dimensions (L*W*H): 960x540x1360MM 13. Weight: Approximately 150Kg.
FX11B Lithium battery sorting machine  18650 21700 26650 32650 扫码器	1. Equipment Power Supply: Single-phase ~220V±10%/50Hz±10% power <300W. 2. Operating Air Pressure: 0.5-0.7Mpa 3. Display Results: 21-inch LCD screen + PC synchronous display + industrial computer + Keyence barcode/QR code scanner. 4. Battery Cells Used: Compatible with 18650, 21700, 26650, 32650 5. Receiving Channels: 10 sorting and grouping channels, 1 non-conforming product channel; sorting values for each channel can be arbitrarily set. 6. Test Parameters: AC internal resistance, DC voltage. 7. Internal Resistance Measurement: Range 0-3.2K, Accuracy ±0.5%rdg, Resolution 0.1mO. 8. Voltage Measurement: Range 0-60V, Accuracy ±0.015%rdg, Resolution 0.1mV. 9. Sorting Speed: 3700-4200 pieces/hour, 1 piece per test. 10. Internal Resistance Meter: TK3561/HK3561 11. Feeding Channel: Can hold 400 battery cells. 12. Can be used with an automatic labeling machine, saving labor. 13. Machine Weight: Approximately 200Kg.

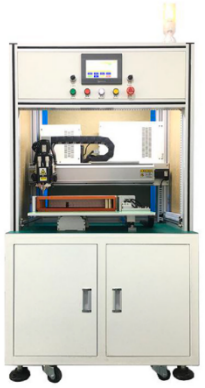
	14. Dimensions (L*W*H): 1250x780x1680MM.
FX11C Lithium battery sorting machine  18650 21700 26650 32650	1. Power Supply: Single-phase ~220V±10%/50Hz±10%, power <300W. 2. Operating Air Pressure: 0.5-0.7Mpa 3. Display Results: 7.0-inch touchscreen. 4. Battery Cells: Compatible with 18650, 21700, 26650, and 32650. 5. Material Receiving Channels: 10 sorting and grouping channels, 1 non-conforming product channel; sorting values for each channel can be arbitrarily set. 6. Test Parameters: AC internal resistance, DC voltage. 7. Internal Resistance Measurement: Range 0-3.2KΩ. 0. Accuracy ±0.5%rdg, resolution 0.01mQ. 8. Voltage measurement: Range 0-60V, accuracy ±0.015%rdg, resolution 0.1mV. 9. Sorting speed: 3700-4200 pieces/hour, 1 piece per test. 10. Internal instrument: TK3561/HK3561 11. Feeding channel: Can hold 400 battery cells. 12. Can be used with an automatic labeling machine, saving labor. 13. Machine weight: Approximately 200Kg. 14. Dimensions (L*W*H): 1250x780x1680MM
FX11S Lithium battery sorting machine  18650 21700 26650 32650	1. Power Supply: Single-phase ~220V±10%/50Hz±10%, Power <300W. 2. Weight: <300Kg. 3. Operating Air Pressure: 0.5-0.7Mpa. 4. Display Results: 21-inch LCD screen + PC synchronous display + industrial control computer. 5. Battery Cells: Compatible with 18650, 21700, 26650, and 32650. 6. Receiving Channels: 10 sorting and grouping channels, 1 non-conforming product channel; sorting values for each channel can be arbitrarily set. 7. Test Parameters: AC internal resistance, DC voltage. 8. Internal Resistance Measurement: Range 0-3.2kΩ, accuracy ±0.5%rdg, resolution... 9. Voltage Measurement: Range 0-60V, Accuracy ±0.015%rdg, Resolution 0.1mV. 10. Sorting Speed: 3700-4200 pieces/hour, 5 pieces per test. 11. Internal Resistance Meter: HK3561/TK3561 12. Feeding Channel: Can hold 400 battery cells.

	13. Data: With communication function, barcode scanner installed, traceable, data saved, and exportable to Excel reports. 14. Can be used with automatic sticker machines, saving labor. 15. Dimensions (L*W*H): 1460x930x1680MM
	1. Equipment Power Supply: Single-phase ~220V±10% / 50Hz±10% Power <300W 2. Weight: <500KG 3. Operating Air Pressure: 0.5-0.7Mpa 4. Display Results: 21-inch LCD screen + PC synchronous display + industrial control computer 5. Battery Cells Used: Standard square-shell battery cells 6. Receiving Channels: 7 sorting and grouping channels, 1 NG channel; sorting values for each channel can be set. 7. Test Parameters: AC internal resistance, DC voltage. 8. Internal Resistance Measurement: Range 0-3.2kΩ, accuracy ±0. 5%rdg, resolution 0.01mQ. 9. Voltage measurement: range 0-60V, accuracy ±0.015%rdg, resolution 0.1mV. 10. Sorting speed: 500-600 pieces/hour, 1 piece per test. 11. Internal resistance meter: HK3560 12. Feeding channel: can hold approximately 20 square-shell battery cells. 13. Data: with communication function, barcode scanner for scanning, traceability, data saving, and exportable to Excel reports. 14. Dimensions: L2260*W1200*H1630MM

03 | Integrated Automatic Battery Labeling and Sorting Machine

	1. Power Supply: Single-phase ~220V, 50Hz 2. Rated Power: 2.0KW 3. Pad Material: Barley paper or PVC material 4. Compatible Cells: 18650 (21700, 26650, customizable). Customizable cell positive or negative pads can be automatically applied using bare barley paper or PVC material. 5. Punching Power: Pneumatic (Airtac) 6. Operating Air Pressure: 0.4-0.8Mpa 7. Feeding Method: Cell feeding hopper, 500 pieces can be fed at a time. 8. Punching Power: Die: Slow wire EDM machining, high precision, 6000-8000 dies coated with descaling agent once. 9. Display Results: 21-inch LCD screen + PC synchronous display + industrial control computer. 10. Sorting and Receiving Channels: 9 sorting and grouping channels, 1 non-conforming product channel; sorting values for each channel can be arbitrarily set. 11. Test Parameters: AC internal resistance, DC voltage. 12.17. Internal Resistance Measurement: Range 0-3.2kΩ, accuracy ±0.5%rdg, resolution 0.01mΩ. 13. Voltage Measurement: Range 0-60V, accuracy ±0.015%rdg, resolution 0.1mV. 14. Internal Resistance Meter: HK3561 high-speed meter. 15. Efficiency: 4000-4500 PCS/hour.

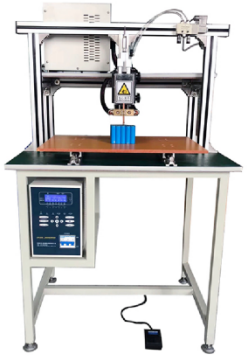
04 | Automatic Battery Spot Welding Machine

D200B Single-side automatic spot welding machine ZW-5000A ZW-8000A MDA -5000A MDA-8000A 	1. Power supply: Single phase ~380V±10%/50Hz±10%/220V 2. Power <2000W 3. Air pressure: 0.4-0.8Mpa 4. Dimensions (LxWxH): 1060x900x1690MM. 5. X-axis travel: 540MM, Y-axis travel: 380MM. 6. Spot welding speed: 0.7-0.8S/piece, 1800-2300PCS/h. 7. Maximum number of battery cells loaded: 120pcs (standard 18650 lithium battery cells). 8. Number of file groups that can be stored: 99 groups. 9. Operating system: Embedded system + HMI. 10. Transmission method: Servo motor + imported precision linear guide. 11. Welding head: Servo motor driven. 12. Uses a motion controller, supports arrayed and non-arrayed battery packs, easy operation and quick programming. 13. Built-in current welding monitoring alarm, effectively solving the problems of cold welding and false welding. 14. Supports breakpoint start, supports automatic start and manual start mode switching. 15. Built-in welding needle processing compensation function, the welding needle part adopts a water-cooled circulating heat dissipation system, effectively reducing welding needle wear.
D400B Single-side automatic spot welding machine ZW-5000A ZW-8000A MDA -8000A 	1. Power Supply: Single-phase ~380V±10%/50Hz±10%. 2. Power <2000W. 3. Operating Air Pressure: 0.4-0.7Mpa. 4. Dimensions (LxWxH): 1060x900x1690MM. 5. X-axis Travel: 540MM, Y-axis Travel: 380MM. 6. Spot Welding Speed: 0.6-0.8S/piece, 2200-2800PCS/h. 7. Welding Head: Servo motor driven, 180° rotation, suitable for welding various irregularly shaped nickel sheets and removing adhesive residue from pure nickel sheets. 8. Number of Files that can be Stored: 99 groups. 9. Operating System: PC industrial control system + HMI (Human Machine Interface). 10. Transmission Method: Servo motor + imported precision linear guide rail.

	11. Welding head: Servo motor driven 12. Employs a motion controller, supports both arrayed and non-arrayed battery packs, with simple operation and quick programming. 13. Built-in current welding monitoring and alarm, effectively solving the problems of cold solder joints and false welds. 14. Supports breakpoint start, and supports automatic and manual start mode switching. 15. Built-in welding needle processing compensation function; the welding needle part adopts a water-cooled circulating heat dissipation system, effectively reducing welding needle wear.
D300B Double-sides automatic spot welding machine ZW-5000A ZW-8000A MDA -8000A 	1. Power Supply: 220V/Three-phase 380V±10%/50Hz±10%, Power <2000W. 2. Six-axis servo motor drive. 3. Equipment Weight: 400KG 4. Dimensions (LxWxH): 1510x900x1700MM. 5. Y-axis travel: 560MM, Z-axis travel: 240MM. 6. Spot welding speed: 0.6-0.8S/piece; 3500-4200 pieces/h. 7. Number of file groups that can be stored: 99 groups. 8. Operating System: Embedded system + HMI (motion control system). 9. Transmission method: Servo motor + imported precision linear guide rail. 10. Maximum number of battery cells loaded: 120pcs (standard 18650 lithium battery cells). 11. Nickel sheet thickness: Below 0.5mm. 12. Full servo welding head, high welding consistency and consistent pressure. 13. Features automatic wear compensation for spot welding needles, welding defect alarm, real-time monitoring and recording, and automatic feedback compensation for welding current. 14. Employs a motion controller, supporting both arrayed and non-arrayed battery packs, with simple operation and quick programming. 15. Includes built-in current welding monitoring alarm, effectively solving the problems of incomplete and false welds.

D500B Double-sides automatic spot welding machine ZW-5000A ZW-8000A MDA -8000A 	1. Power supply: Three-phase 380V±10%/50Hz±10%, power <2000W. 2. Six-axis servo motor drive. 3. Equipment weight: 400KG 4. Dimensions (LxWxH): 1510x900x1700MM. 5. Y-axis travel: 560MM, Z-axis travel: 240MM. 6. Spot welding speed: 0.6-0.8S/piece; 4000-4800 pieces/hour. 7. Number of file groups that can be stored: 99 groups. 8. Operating system: PC industrial control system + HMI (motion control system) 64-bit high-speed chip, DSP control technology. 9. Transmission method: Servo motor + imported precision linear guide rail. 10. Maximum number of battery cells loaded: 120pcs (standard 18650 lithium battery cells). 11. Nickel sheet thickness: below 0.5mm. 12. Full servo rotating 180° welding head, high welding consistency, consistent pressure, and non-stick welding pins. 13. Automatic compensation function for spot welding needle wear, welding defect alarm, real-time monitoring, recording, and automatic feedback compensation function for welding current. 14. Uses a motion controller, supports arrayed and non-arrayed battery packs, easy operation and quick programming. 15. Built-in current welding monitoring alarm, effectively solving the problems of cold welds and false welds. 16. Supports breakpoint start, and supports automatic start and manual start mode switching.

05 | Manual Spot Welding Machine

5000L Inverter DC spot welding machine ZW-5000A ZW-8000A 	1. Power Supply: AC 380V±10% 50/60Hz 2. Maximum Output Short-Circuit Current: 5000A 3. Inverter Frequency: 4KHz 4. Maximum Transformer Output Power: 15KVA 5. Control Method: DSP Control Technology 6. Welding Time: Adjustable from 1.0ms to 20.0ms, accurate to 0.1ms 7. Applicable Scope: 18650/21700/26650/Metal Hardware Parts 8. Welding Time: Adjustable from 1.0ms to 20.0ms, accurate to 0.1ms. 9. Suitable thickness for flat-plate nickel welding: 0.05-0.2mm nickel-plated steel; suitable thickness for bump-welded nickel welding: 0.2-0.5mm nickel-plated steel. 10. Welding method: Flat double-needle welding. 11. Welding speed: 0.5-0.8 seconds per weld. 12. Parameter storage capacity: 10 sets. 13. Selectable welding modes: single-point and continuous-point. 14. Audible and visual alarm for abnormal current, effectively preventing cold welds and false welds. 15. Welding current detection function: Freely set and monitor the current range. 16. Dimensions (LxWxH): 1000x600x1310mm.
LM05D Inverter DC spot welding machine ZW-5000A ZW-8000A MDA -8000A 	1. Power Supply: AC 380V+10% 50Hz±2Hz 2. Maximum Output Short-Circuit Current: 5000A 3. Inverter Frequency: 4KHz 4. Maximum Transformer Output Power: 10KVA 5. Welding Voltage Adjustment: 50V-350VDC 6. Welding Time: Adjustable from 1.0ms to 20.0ms, accurate to 0.1ms 7. Applicable Scope: 18650/21700/26650/Metal Hardware Parts 8. Suitable Thickness for Flat Welding Nickel Sheets: 0.08-0.2MM Nickel-Plated Steel; Suitable Thickness for Raised Welding Nickel Sheets: 0.15mm -0.5mm nickel-plated steel. 9. Welding method: Flat double-needle welding. The desktop has a sliding rail that allows it to move back and forth, saving time and effort. 10. Dimensions (LxWxH): 1000x600x1310mm. 11. Welding speed: 0.5-0.8 seconds per weld. 12. Parameter storage capacity: 10 sets. 13. Welding mode options: single-point and continuous-point.

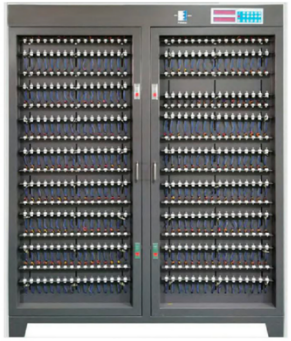
	14. Current abnormality alarm with sound and light, effectively preventing cold welds and false welds. 15. Welding current detection function: Freely set and monitor the current range.
	1. Power Supply: AC 220V+10% 50Hz+2Hz 2. Maximum Output Current: 5000A 3. Control Methods: 3 types of constant current, constant voltage, and mixed current and voltage control 4. Current Setting Range: 0.000-5000A 5. Voltage Setting Range: 0.00-9.99V 6. Number of Marking Points: 0-99999 7. Applicable Scope: 18650/21700/26650/Metal Hardware Parts 8. Suitable Thickness for Flat Welding Nickel Sheets: 0.08-0.2mm Nickel-plated MM steel with raised dot welding is suitable for nickel-plated steel with a thickness of 0.2-0.3MM. 9. Welding time: Adjustable from 1.0ms to 20.0ms, accurate to 0.1ms. 10. Welding method: Flat double-needle welding. 11. Welding speed: 0.5-0.8s/single weld. 12. Parameter storage specifications: 10 groups. 13. Welding mode selectable: single point or continuous point. 14. Current abnormality audible and visual alarm, effectively preventing cold welds and false welds.
	1. Welding Power Supply: Single-phase AC220V±10%, 50/60Hz, current <10A, rated power 425W 2. Maximum Output Current: 8000A 3. Control Methods: 3 types: constant current, constant voltage, and mixed current and voltage control 4. Current Setting Range: 0.000-8.000KA 5. Voltage Setting Range: 0.00-9.99V 6. Number of Welding Points: 0-99999 7. Applicable Scope: 18650/21700/26650/Metal Hardware Parts 8. Welding Time: 1.0ms-20.0ms Adjustable, precise 0.1ms. Applicable range: 9. Suitable thickness for flat welding nickel sheets: 0.05-0.2mm nickel-plated steel; suitable thickness for bump welding nickel sheets: 0.1-0.5mm nickel-plated steel. 10. Welding method: Flat double-needle welding.

	11. Welding speed: 0.5-0.8s/single weld. 12. Parameter storage specifications: 10 groups. 13. Selectable welding modes: single-point and continuous-point. 14. Audible and visual alarm for abnormal current, effectively preventing cold solder joints and false welds. 15. Dimensions (LxWxH): 1000x600x1310mm
PH05S Resistance welding machine ZW-5000A ZW-8000A MDA -8000A 	1. Power Supply: AC 380V+10% 50/60Hz 2. Maximum Output Short-Circuit Current: 5000A 3. Inverter Frequency: 4KHz 4. Maximum Transformer Output Power: 15KVA 5. Control Method: DSP Control Technology 6. Welding Time: Adjustable from 1.0ms to 20.0ms, accurate to 0.1ms 7. Applicable Scope: 18650/21700/26650/Metal Hardware Parts 8. Welding Time: Adjustable from 1.0ms to 20.0ms, accurate to 0.1ms 9. Welding Method: Flat double-needle welding. 10. Welding Speed: 0.5-0.8 seconds per weld. 11. Parameter Storage Capabilities: 10 sets. 12. Welding Mode: Selectable single-point or continuous-point mode. 13. Audible and visual alarm for abnormal current, effectively preventing cold welds and false welds. 14. Welding Current Detection Function: Freely set and monitor the current range. 15. Dimensions (LxWxH): 1000x600x1310mm.

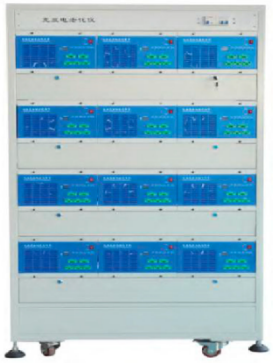
06 | Power Battery Comprehensive Tester

100C20D120 Power Battery Comprehensive Tester 100V100A 	1. 7.2V-110V Open Circuit Voltage Test, Peak Current 100A 2. Trial Charge Voltage Test 3. Open Circuit Voltage Test 4. Charging Current Test 5. Charging Voltage Test 6. Discharge Current Test 7. AC Internal Resistance Test 8. DC Internal Resistance Test 9. Overcurrent Protection Current Test 10. Overcurrent Recovery Voltage 11. Charging Protection Test 12. Discharge Time and Current Setting 13. Overcurrent Protection Delay Time Setting 14. Dimensions (LxWxH): 1620*580*1860

07 | Lithium Battery Capacity Testing Cabinet

FRG-2150 Lithium Battery Capacity Testing Cabinet 5V2A 5A3A 	1. Input Power: 220V/50HZ +10% 2. Power Consumption: 30W/8CH 3. Current Measurement Range: 30mA-5000mA 4. Voltage Measurement Range: 0mV-5000mV 5. Input Impedance: ≥10mΩ 6. Current Control Accuracy: ±(0.1%RD+0.1%FD) 7. Voltage Control Accuracy: ±0.1%(A)(V) 8. Current Setting Resolution: 1mA 9. Voltage Setting Resolution: 1mV 10. Time Measurement Resolution: 1s 11. Cycle Measurement Range: 1-999 12. Voltage Stability During Constant Voltage Charging: 0.% 13. Interface: RS485 14. Dimensions (LxWxH): 1800x600x16000mm.

08 | Battery Aging Cabinet

LHG-2280 Battery Aging Cabinet 12 channels/cabinet 12 channels/cabinet 6 channels/cabinet 	1. Input Power: AC 220V +10%/50Hz 2. Voltage Measurement Range: 10~70V 3. Voltage Accuracy: (0.2% of reading +0.2% of range) 4. Current Charging Range: 0~10000mA 5. Current Charging Accuracy: (0.2% of reading +0.2% of range) 6. Current Discharging Range: 0~20000mA 7. Current Accuracy: + (0.2% of reading +0.2% of range) 8. Capacity Accuracy: ±1%. 9. Time Timing Range: 0~999 hours/step 10. Discharge Power: 800W 11. Charging Mode: Constant Current Constant Voltage Charging 12. Data Recording Interval: ≥5S 13. Data Output Method: Excel/TXT/Chart 14. Dimensions (LxWxH): 1000x600x1900MM.
HKG-2380 Battery Aging Cabinet (feedback type) 100V-120V 20A-60A 	1. BMS Basic Parameter Verification 2. DCIR Test 3. Power Battery System Cycle Life Test 4. Power Battery System Capacity Test 5. Overcurrent Discharge Protection Function Test 6. Power Battery System Charge Retention and Recovery Capacity Test 7. Power Battery System Charge and Discharge Efficiency Test 8. Power Battery System Consistency Test and Evaluation Test 9. Single Cell Temperature Characteristics Test 10. Voltage Accuracy: +0.1% of F.S ±0.1% of F.D 11. Current Accuracy: ±0.05% of F.S +0.05% of F.D 12. Total Power: 24KW 13. Power Accuracy: ±3% of F.S 14. Current Response Time: ≤200ms 15. Time Setting Range: 1000 minutes/step 16. Time Accuracy: 1S/H

09 | Battery Internal Resistance Tester

3561/3562 Battery Internal Resistance Tester 3561 3562  	1. Rated input voltage: DC±60V 2. Resistance measurement range: 10mΩ~1KΩ, 6-range switching 3. Measurement accuracy: 100mΩ~1000Ω range ±0.5% rdg±2dgt 4. Voltage measurement range: DC6V (resolution 0.1mV), DC60V (resolution 1mV) two-range switching 5. Display: Impedance (31000), voltage (±600000) high-brightness LED display 6. Total measurement time: response time + sampling time 7. Comparator: Maximum load voltage 30V, maximum output current 100mA 8. Power supply: AC85-242V, 47~63Hz, 15VA 9. Enables automated measurement, accurately and quickly determining battery status 10. Built-in comparator function, 30 sets of selection conditions saved 11. Includes anti-interference shielding loop, making test results more stable and accurate 12. Tests resistance 0.3%, voltage 0.05%, up to 25 times/second.

10 | Protection Board Tester

Protection board tester BMS-1-6S 1-6S 	1. Series quantity selectable from 1 to 6 2. Overcharge protection 0-5V ±5mV 3. Overcharge protection release 0-5V ±5mV 4. Over-discharge protection 0-5V ±5mV 5. Over-discharge protection release 0-5V ±5mV 6. Over-discharge current protection value 1A-120A ±0.1A (continuous long-term discharge) 7. Over-discharge current protection value 1A-40A ±0.1A 8. Overcurrent protection delay 0-10S ±1ms 9. Balancing function activation voltage 0-5V ±5mV, balancing current 0-200mA ±

	1mA 10. Total self-discharge test 0-10000uA ±5uA 11. Single-cell self-discharge 0-500uA, 0.1uA 12. Main circuit internal resistance tester 0-200 milliohms 13. Various protection recovery function tests
	1. Series quantity selectable from 1 to 24 2. Overcharge protection 0-5V ±5mV 3. Overcharge protection release 0-5V ±5mV 4. Over-discharge protection 0-5V ±5mV 5. Over-discharge protection release 0-5V ±5mV 6. Over-discharge current protection 1A-120A ±0.1A (for continuous long-term discharge) 7. Over-discharge current protection 1A-120A ±0.1A 8. Overcurrent protection delay 0-10S ±1ms 9. Balancing function activation voltage 0-5V ±5mV, balancing current 0-1000mA ± 1mA 10. Total self-discharge test 0-10000uA +5uA 11. Single-cell self-discharge 0-100uA 0.1uA 12. Main circuit internal resistance tester 0-200 milliohms 13. Various protection and recovery function tests.
	1. Series quantity selectable from 1 to 24 2. Overcharge protection 0-5V +5mV 3. Overcharge protection release 0-5V ±5mV 4. Over-discharge protection 0-5V ±5mV 5. Over-discharge protection release 0-5V ±5mV 6. Over-discharge current protection 1A-120A ±0.1A (continuous long-term discharge) 7. Over-discharge current protection 1A-120A ±0.1A 8. Overcurrent protection delay 0-10S ±1ms 9. Balancing function activation voltage 0-5V ±5mV, balancing current 0-1000mA ± 1mA 10. Total self-discharge test 0-10000uA ±5uA 11. Single cell self-discharge 0-100uA 0.1uA

	12. Main circuit internal resistance tester 0-200 milliohms 13. Various protection and recovery function tests 14. Dimensions (LxWxH): 1580*560*1820