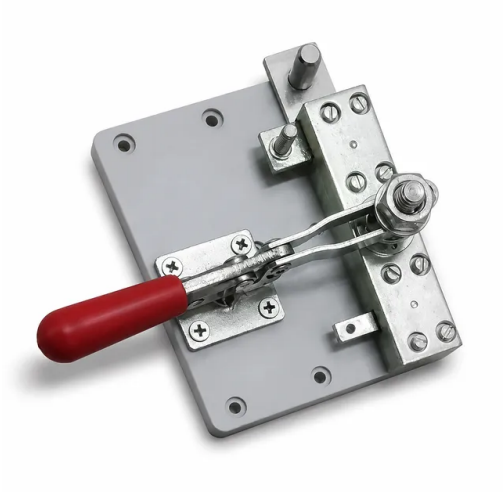
High Current Polymer Battery Test Fixture For Pouch Cell Electrical Testing

Item Number: JA07



Introduction

Engineered for high current testing up to 350A and 500V this polymer battery test fixture ensures minimal contact resistance and superior thermal stability across extreme temperatures from minus 55 to positive 155 degrees Celsius.

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Application	Description	Key Benefit
High-Rate Polymer Battery Formation	Rapid charging and electrochemical activation of pouch cells during pre-assembly and pilot production.	Handles sustained currents up to 350A without thermal degradation or tab burning.
EV Pouch Cell Cycle Life Validation	Long-duration charge-discharge endurance testing under continuous automated cycling protocols.	Ultra-low contact resistance (≤5mΩ) guarantees measurement accuracy over 10,000+ hours.
Extreme Environmental Chamber Testing	Thermal stress analysis and cold cranking characterization inside environmental test chambers.	Operates reliably across wide temperature variations from -55°C to 155°C and up to 90% RH.
Fast-Charging Protocol Research	Laboratory investigation of extreme fast charging (XFC) parameters on advanced lithium polymer cells.	Stable voltage handling up to 500V with high dielectric isolation prevents cross-channel interference.
High-Throughput Quality Assurance	End-of-line quality screening, internal resistance sorting, and capacity grading in battery pack assembly.	Robust mechanical durability exceeding 30,000 cycles reduces maintenance frequency.
Aerospace & Defense Power Testing	Rigorous validation of lightweight polymer batteries subjected to demanding thermal and electrical stresses.	Polysulfone and stainless steel structure provides superior mechanical stability and safety.

Parameter	Specification (JA07)
Product Item Number	JA07
Maximum Operating Current	≤ 350 A
Maximum Operating Voltage	≤ 500 V
Operating Temperature Range	-55°C to 155°C
Housing / Body Materials	Polysulfone (PSU), Brass, Stainless Steel
Surface Plating	Nickel (Ni), 3 nm to 5 nm
Contact Resistance	≤ 5 mΩ
Insulation Resistance	≥ 1 × 10^9 Ω (tested at 500 VDC)
Operating Humidity Range	≤ 90% RH
Mechanical Durability	≥ 30,000 cycles
Continuous Service Life	≥ 10,000 hours
Dimensional Units & Tolerances	Metric (mm), ±0.05 mm