AST-100 12.8V LiFePO4 Battery Specifications

Features Of Battery



✅ Active Balancing BMS

Actively balances cell voltage to improve capacity utilization and extend battery life.

✅ Stainless Steel Compression

Reinforced stainless steel straps help reduce cell swelling and improve durability.

✅ Anti-Vibration Structure

Dedicated mounting frame keeps the BMS secure during transportation and vibration.

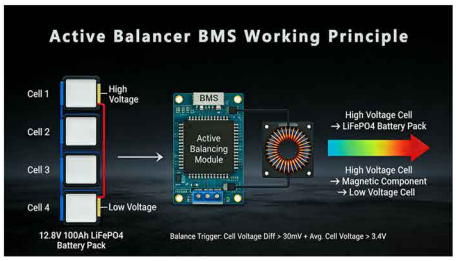
✅ Low-Temperature Heating

Automatically heats below 0°C and stops once a safe charging temperature is reached.

✅ Grade A $LiFePO_4$ Cells

Original Grade A cells with full traceability for reliable and long-lasting performance.

Battery Internal Structure



Active Balancing BMS

Balance Trigger: Voltage Difference > 30mV
Activation Voltage: Average Cell Voltage > 3.4V
Balancing Current: 1000mA Typical I 2000mA Max
Balancing Method: Active Energy Transfer
Energy Flow: High Voltage Cell → Low Voltage Cell
Protection: OVP I UVP I OCP I SCP I OTP I UTP



Stainless Steel Straps & Compression Plates

Cell Structure: 4 × Grade-A $LiFePO_4$ Cells
Compression Method: Stainless Steel Straps + Reinforced Compression Plates
Compression Force: Uniform Cell Compression

Function:
- Controls Cell Swelling
- Maintains Cell Alignment
- Reduces Enclosure Stress
- Improves Structural Stability



Heating

Operating Temperature: Down to -20°C (-4°F)
Heating Trigger: Battery Temperature < 0°C (32°F)
Heating Stop: Battery Temperature ≥ 0°C (32°F)

Operating Condition: Charging Only
Heating Process:
-20°C ~ 0°C → Heating ON
≥ 0°C → Heating OFF
Charging Continues

AST-100



12.8V 100Ah Lithium battery

SPECS OF BATTERY AND BMS

ELECTRICAL SPECIFICATIONS	
Nominal Voltage	12.8V
Nominal Capacity	100Ah
Nominal Energy	1280Wh
Internal Resistance	≤22mΩ
Control	Battery management system 200A
Self Discharge	⩽3%/per mounth
Connection In Series	Up to 4 Units in Series (≤51.2V)
Connection In Parallel	Up to 4 Units in Parallel
Discharge Current and Voltage Specifications	
Max. Continuous Discharge Current	150A
Peak Discharge Current	200A(3~5s)
Recommend Low Voltage Disconnect	11.6~12V
BMS Low Voltge Cut-off	10.5V
BMS Reconnect Voltage	11.2~11.6V
Short Circuit Protection	Auto recover or charge release
Temperature Ranges	
Discharge Temperature	-20~+65°C
Charge Temperature	-20~+45°C
Storage Temperature Range	-10~+45°C
BMS High Temperature Protection	70°C
Battery High Temperature Protection	60°C

MECHANICAL SPECIFICATIONS	
Terminal Type	M8
Weight	10.95/11.75kg
Case Dimension(L*W*H)	303*175*169mm
Cell type / Chemistry	LiFePO4
Case type	ABS
Function	Bluethooth
BMS: low voltage, high voltage, over temperature	
over current, short-circuit protection, etc.	
Charge Current and Voltage Specifications	
Max. Charge Current	200A
Recommended Charge Current	50A
Recommend Charge voltage	14.4V±0.2V
BMS Over Charge Voltage Cut-off	14.6V
BMS Reconnect Voltage	13.8V
Balancing Voltage	13.6~13.8V
Package Information	
Package	Single package
Pieces per Pallet	60Pcs
Gross Weight per Pallet	740KG
Pallet Dimensions	1200*1100*1100mm
Certifications	CE,RoHS,UN38.3,MSDS