

# SF-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

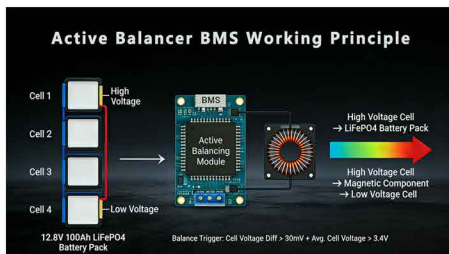
Automatically heats below 0°C and stops once a safe charging temperature is reached.

### ✓ Grade A LiFePO<sub>4</sub> 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 | 2000mA Max

**Balancing Method:** Active Energy Transfer

**Energy Flow:** High Voltage Cell  
→ Low Voltage Cell

**Protection:** OVP | UVP | OCP | SCP | OTP | UTP



### Stainless Steel Straps & Compression Plates

**Cell Structure:** 4 × Grade-A LiFePO<sub>4</sub> 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



## 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 month
Connection In Series	Not support
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 Voltage 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	10.9kg
Case Dimension(L*W*H)	303*175*169mm
Cell type / Chemistry	LiFePO4
Case type	ABS
Function	Bluetooth
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