



# Iron-V

## LFP12-100SEV-BT(12V 100Ah) Specification

### Iron-V Lithium Iron Phosphate Battery



#### Attentions:

- When the battery needs to be used in parallel or in series, each battery shall be fully charged according to the standard charging method before parallel or in series.
- Duration of maximum constant current is thermally limited by internal electronics and depends on ambient temperature.

## Features

Cost Effectiveness



Smart Management



Longer Service Life



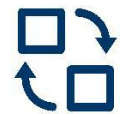
Guaranteed Safety



Fast Charge



Drop-in Replacement



## Technical Characteristics

### NOMINAL CHARACTERISTICS

Nominal Voltage	12.8 V
Nominal Capacity	100Ah
Energy	1280Wh
IR	≤12mΩ@100%SOC
Efficiency	≥99.5%
Maximum Modules in Series	4 (Single Use)

### CHARGE & DISCHARGE CHARACTERISTICS

Voltage Window	10.8-14.6V
Max. Continuous Charge Current	100A
Max. Continuous Discharge Current	100A
Peak Discharge Current	200A (15s±2s)
Recommended charge current/A	50A
Recommended discharge current/A	50A
Charge current cut-off/A	3A

### OPERATING CONDITIONS

Operating Temperature	Charge: 10°C~45°C
	Discharge: -20°C~55°C
Storage Temperature	20°C ~ 30°C
Storage Duration	12 months at 25°C
Heating Function	Charging heating (Optional)
	< 1°C, ON > 6°C, OFF

### MECHANICAL CHARACTERISTICS

Case Material	ABS
Dimension (L*W*H)	306*169*215
Weight	10.3Kg
Terminal Type	M8
IP Grade	/
BCI Group NO.	27
Cell Type-Chemistry	Prismatic LiFePO <sub>4</sub>

### BMS CHARACTERISTICS

Primary Charging Protection	Current: >105.0±2.5A
	Delay time: 15±2s
Secondary Charging Protection	Current: >125.0A±2.5A
	Delay time: 3±1s
Primary Discharging Protection	Current: >105.0±2.5A
	Delay time: 20±1s
Secondary Discharging Protection	Current: >120.0A±2.5A
	Delay time: 3±1s
Over-charge Voltage Protection	Voltage: >14.8±0.2V
	Delay time: 2±0.5s
Over-discharge voltage protection	Voltage: <9.6±0.2V
	Delay time: 2±0.5s
High Temperature Protection	Charging: 65±3°C Recover: 60±3°C
	Discharging: 65±3°C Recover: 60±3°C
Low Temperature Protection	Charging: 0±3°C Recover: 3±3°C
	Discharging: -20±3°C Recover: -15±3°C
Communicating Function	Blue Tooth



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### Constant Current Discharge Data (Amperes@25°C)

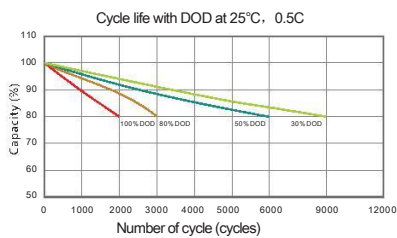
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	100A	50A	33.3A	20A	10A

### Constant Power Discharge Data (Watt@25°C)

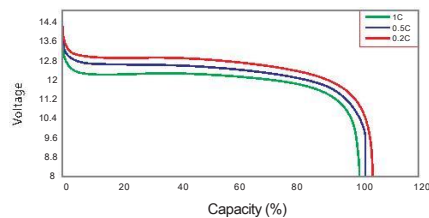
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	1150W	580W	388W	234W	118W

### Cycle No. Vs DOD%

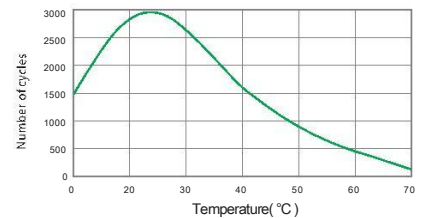
Number of Cycles Vs. DOD



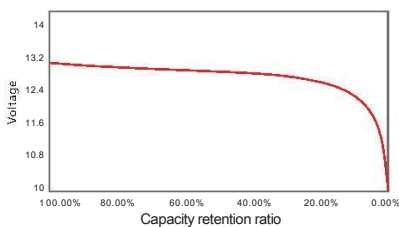
Discharge Performance at R.T.



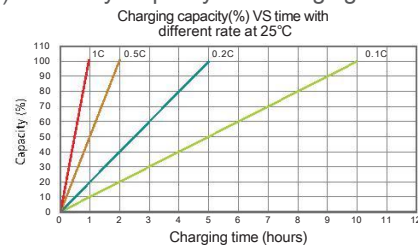
Cycle Life in Relation to Temperature



Battery Capacity (C) Vs. Open Circuit Voltage (OCV)  
SOC Vs OCV



Battery Capacity Vs. Charging Time



Temperature Effects on Capacity

