



# Iron-V

## LFP12-100EV (12V 100Ah) Specification

### Iron-V Lithium Iron Phosphate Battery



## Features

Cost  
Effectiveness



Longer  
Service Life



Guaranteed  
Safety



Fast Charge



Drop-in  
Replacement



## Technical Characteristics

### NORMINAL CHARACTERISTICS

Nominal Voltage	12.8 V
Nominal Capacity	100Ah
Energy	1280Wh
IR	≤12mΩ@100%SOC
Efficiency	≥99.5%
Maximum Modules in Series	2 (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

Cycle Life	≥2000
Operating Temperature	Charge: 10°C~45°C Discharge: -20°C~60°C
Storage Temperature	20°C ~ 30°C
Storage Duration	12 months at 25°C

### MECHANICAL CHARACTERISTICS

Case Material	ABS
Dimension (L*W*H)	330*172*220
Weight	13.4Kg
Terminal Type	F12 (M8)
IP Grade	/
BCI Group NO.	31
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: >120.0A±2.5A Delay time: 2±1s
Primary Discharging Protection	Current: >105.0±2.5A Delay time: 20±1s
Secondary Discharging Protection	Current: >120.0A±2.5A Delay time: 1±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

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

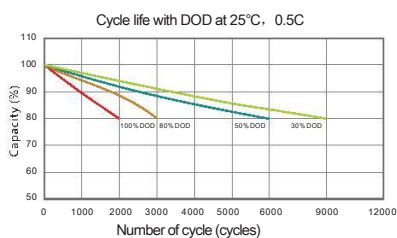
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	100A	50A	33.3A	20A	10A

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

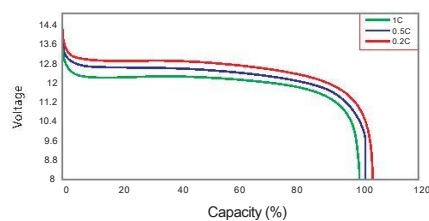
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	1150W	580W	388W	234W	118W

### Cycle No. Vs DOD%

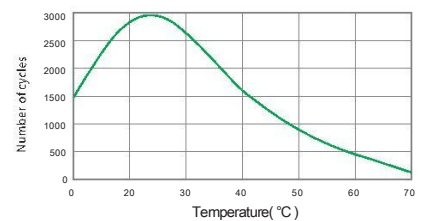
Number of Cycles Vs. DOD



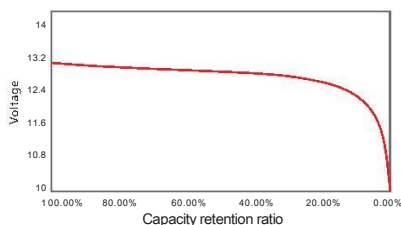
Discharge Performance at R.T.



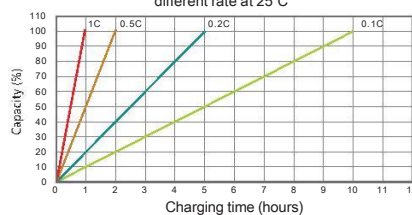
Cycle Life in Relation to Temperature



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



Battery Capacity Vs. Charging Time  
Charging capacity(%) VS time with different rate at 25°C



Temperature Effects on Capacity

