



Iron-V

LFP12-100EV (12V 100Ah) Specification

Iron-V Lithium Iron Phosphate Battery



Features

Cost Effectiveness



Smart Management



Longer Service Life



Guaranteed Safety



Fast Charge



Drop-in Replacement



Technical Characteristics

NORMAL CHARACTERISTICS

Nominal Voltage	12.8 V
Nominal Capacity	100Ah
Energy	1280Wh
IR	≤15mΩ@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)

OPERATING CONDITIONS

Cycle Life	≥2000
Operating Temperature	Charge: 0°C~60°C Discharge: -20°C~60°C
Storage Temperature	-20°C ~ 30°C
Storage Duration	12 months at 25°C
Heating Function	/

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 ₄

BMS CHARACTERISTICS

Primary Charging Protection	Current: >105.0±2.5A Delaytime: 15±2s
Secondary Charging Protection	Current: >120.0A±2.5A Delaytime: 2±1s
Primary Discharging Protection	Current: >105.0±2.5A Delaytime: 20±1s
Secondary Discharging Protection	Current: >210.0A±2.5A Delaytime: 1±1s
Over-charge Voltage Protection	Voltage: 14.6~15.6V Delaytime: 1.5-2.5s
Over-discharge voltage protection	Voltage: 8.8~9.8V Delaytime: 1.5-2.5s
Temperature Protection	PCB temperature >95±2°C Recover < 75±2°C
Communicating Function	/



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Constant Current Discharge Data (Amperes@25°C)

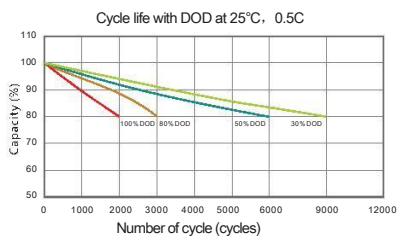
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	100A	50A	33.3A	20A	10A

Constant Power Discharge Data (Watt@25°C)

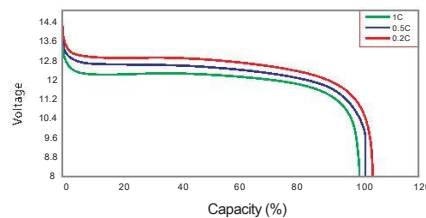
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	1150W	580W	388W	234W	118W

Cycle No. Vs DOD%

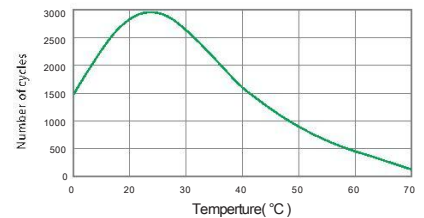
Number of Cycles Vs. DOD



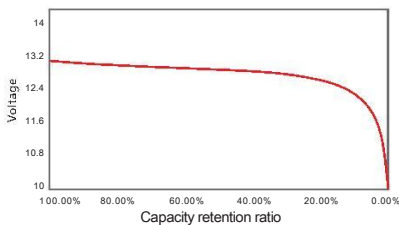
Discharge Performance at R.T.



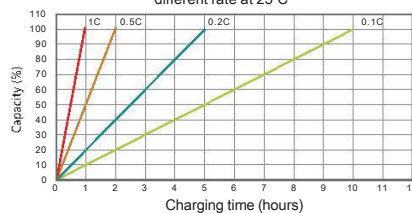
Cycle Life in Relation to Temperature



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



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



Temperature Effects on Capacity

