



Iron-V

LFP12-60EV (12V 60Ah) Specification

Iron-V Lithium Iron Phosphate Battery



Features

Cost
Effectiveness



Longer
Service Life



Guaranteed
Safety



Fast Charge



Drop-in
Replacement



Technical Characteristics

NOMINAL CHARACTERISTICS

Nominal Voltage	12.8 V
Nominal Capacity	60Ah
Energy	768Wh
IR	≤20mΩ@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	60A
Max. Continuous Discharge Current	60A
Peak Discharge Current	100A (10s)
Recommended charge current/A	30A
Recommended discharge current/A	30A
Charge current cut-off/A	1.8A

OPERATING CONDITIONS

Cycle Life	≥2000
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

MECHANICAL CHARACTERISTICS

Case Material	ABS
Dimension (L*W*H)	229*138*213
Weight	9.3Kg
Terminal Type	F11 (M6)
IP Grade	/
BCI Group NO.	22
Cell Type-Chemistry	Prismatic LiFePO ₄

BMS CHARACTERISTICS

Primary Charging Protection	Current: 75~85A Delay time: 15±2s
Secondary Charging Protection	Current: ≥85A Delay time: 3±2s
Primary Discharging Protection	Current: 75~105A Delay time: 15±2s
Secondary Discharging Protection	Current: 105~170A Delay time: 3±2s
Over-charge Voltage Protection	Voltage: ≥14.8V Delay time: ≤3s
Over-discharge voltage protection	Voltage: ≤9.6V Delay time: ≤3s
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)

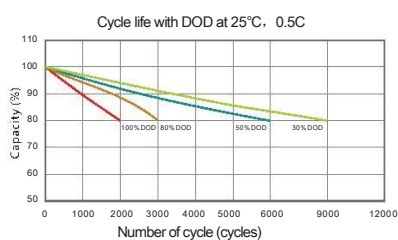
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	60A	30A	20A	12A	6A

Constant Power Discharge Data (Watt@25°C)

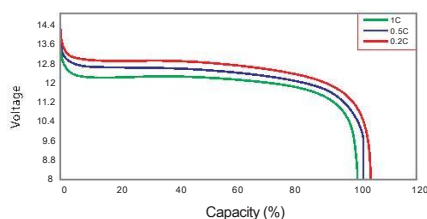
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	690W	348W	233W	140W	70.8W

Cycle No. Vs DOD%

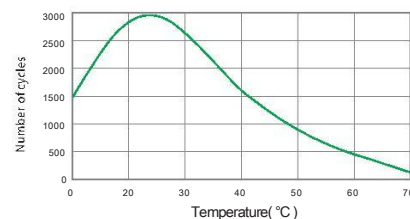
Number of Cycles Vs. DOD



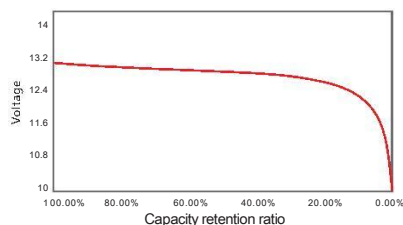
Discharge Performance at R.T.



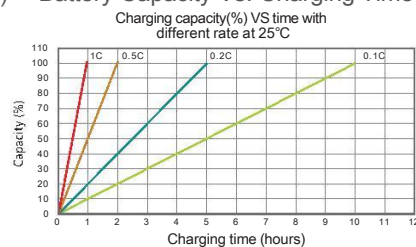
Cycle Life in Relation to Temperature



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



Battery Capacity Vs. Charging Time



Temperature Effects on Capacity

