Iron-V

LFP12-60EV (12V 60Ah) 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.
●When the battery is discharged empty. It should be recharged in time. Otherwise the BMS can't work due to low voltage, and the battery will be permanently invalidated.

Features

Cost Effectiveness

Longer Service Life

Guaranteed Safety

Fast Charge

Drop-in Replacement

Technical Characteristics

NORMINAL CHARACTERISTICS	
Nominal Voltage	12.8 V
Nominal Capacity	60Ah
Energy	768Wh
IR	≤20mΩ@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	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℃~45℃
	Discharge:-20℃~55℃
Storage Temperature	20℃ ~ 30℃
Storage Duration	12 months at 25℃

MECHANICAL CHARACTERISTICS	
Case Material	ABS
Dimension（L*W*H）	229*138*213
Weight	7.3Kg±5%
Terminal Type	F11（M6）
IP Grade	/
BCI Group NO.	22
Cell Type-Chemistry	Cylindrical $LiFePO_4$

BMS CHARACTERISTICS		
Primary Charging Protection	Current: 75~85A	
	Delay time:15±2s	
Secondary Charging Protection	Current: ⩾85A	
	Delay time: ⩽3s	
Primary Discharging Protection	Current: 75~105A	
	Delay time: 15±2s	
Secondary Discharging Protection	Current: ＞105A	
	Delay time: ⩽3s	
Over-charge Voltage Protection	Voltage: ＞14.8±0.2V	
	Delay time: ⩽3s	
Over-discharge voltage protection	Voltage: ＜9.6±0.2V	
	Delay time: ⩽3s	
High Temperature Protection	Charging: 65±3℃	Recover: 60±3℃
	Discharging: 65±3℃	Recover: 60±3℃
Low Temperature Protection	Charging: 0±3℃	Recover: 3±3℃
	Discharging: -20±3℃	Recover: -15±3℃

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Constant Current Discharge Data（Amperes@25℃）

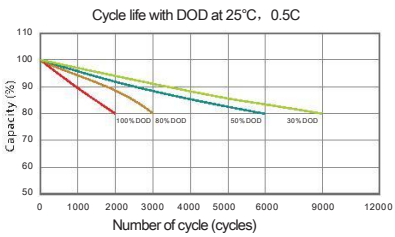
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	60A	30A	20A	12A	6A

Constant Power Discharge Data（Watt@25℃）

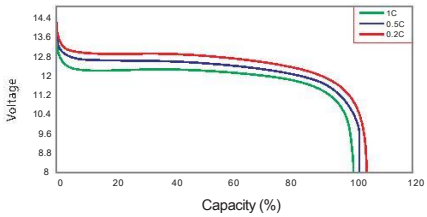
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	/	348W	233W	140W	70.8W

Cycle No. Vs DOD%

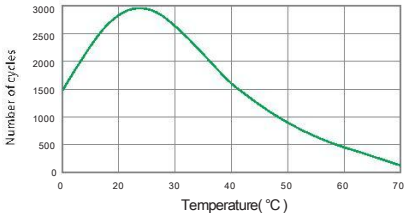
Number of Cycles Vs. DOD



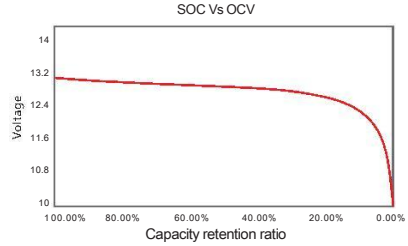
Discharge Performance at R.T.



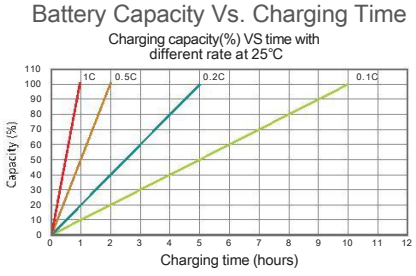
Cycle Life in Relation to Temperature



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



Battery Capacity Vs. Charging Time



Temperature Effects on Capacity