



Iron-V

Specification: LFP12-30EV (12V 30Ah)

Iron-V Lithium Iron Phosphate Battery



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	30Ah
Energy	384Wh
IR	≤10mΩ@100%SOC
Efficiency	≥99.5%
Maximum Modules in Series	2 (Single Use)

CHARGE & DISCHARGE CHARACTERISTICS

Voltage Window	9.6-14.6V
Max. Continuous Charge Current	30A
Max. Continuous Discharge Current	30A
Peak Discharge Current	45-80A (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)	166*175*125
Weight	4.7Kg
Terminal Type	F13
IP Grade	/
BCI Group NO.	/
Cell Type-Chemistry	Prismatic LiFePO ₄

BMS CHARACTERISTICS

Primary Charging Protection	Current: 40~60A Delaytime: 13~17s
Secondary Charging Protection	Current: ≥60A Delaytime: 1~4s
Primary Discharging Protection	Current: 45A~80A Delaytime: 15s
Secondary Discharging Protection	Current: ≥133A Delaytime: 150mS
Over-charge Voltage Protection	Voltage: 14.8V Delaytime: ≤3s
Over-discharge voltage protection	Voltage: 9.6V Delaytime: ≤3s
Temperature Protection	PCB temperature ≥90°C Recover ≤65°C
Communicating Function	/



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Constant Current Discharge Data (Amperes@25°C)

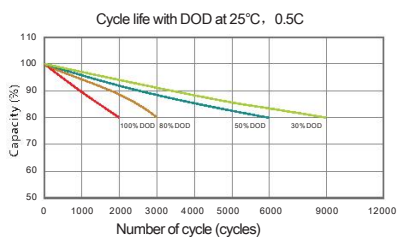
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	30A	15A	10A	6A	3A

Constant Power Discharge Data (Watt@25°C)

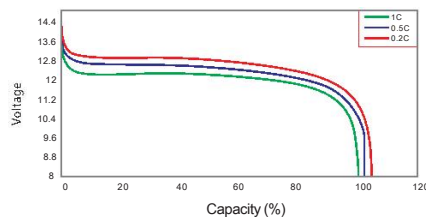
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	368W	186W	125W	76W	38.4W

Cycle No. Vs DOD%

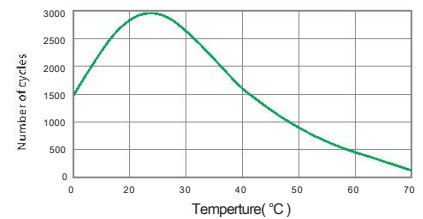
Number of Cycles Vs. DOD



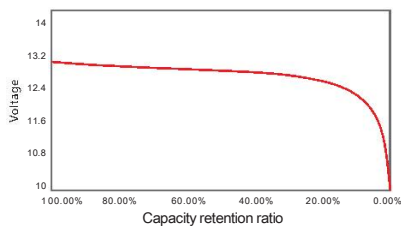
Discharge Performance at R.T.



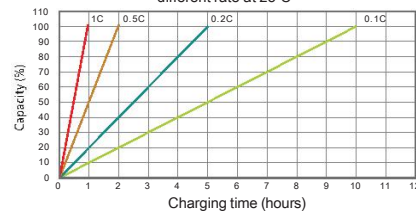
Cycle Life in Relation to Temperature



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

