VISION

Iron-V

LFP12-40EV (12V 40Ah) Specification

Iron-V Lithium
Iron Phosphate Battery

Features

- Cost Effectiveness — Lithium / VRLA
- Smart Management
- Longer Service Life — ≥ 2000 cycles
- Guaranteed Safety — BMS
- Fast Charge
- Drop-in Replacement

Technical Characteristics

NORMINAL CHARACTERISTICS	
Nominal Voltage	12.8 V
Nominal Capacity	40Ah
Energy	512Wh
IR	≤10.5mΩ@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	40A
Max. Continuous Discharge Current	40A
Peak Discharge Current	80A（≥10s）

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

MECHANICAL CHARACTERISTICS	
Case Material	ABS
Dimension（L*W*H）	195*130*168
Weight	5.15Kg
Terminal Type	F11（M6）
IP Grade	/
BCI Group NO.	U1
Cell Type-Chemistry	Prismatic $LiFePO_4$

BMS CHARACTERISTICS	
Primary Charging Protection	Current:110~150A
	Delaytime:5~20ms
Secondary Charging Protection	Current: /
	Delaytime: /
Primary Discharging Protection	Current: 110A~150A
	Delaytime:5~20ms
Secondary Discharging Protection	Current: /
	Delaytime: /
Over-charge Voltage Protection	Voltage:14.6~15.6V
	Delaytime:0.5-2.0s
Over-discharge voltage protection	Voltage:8.8~9.8V
	Delaytime:30-200ms
Temperature Protection	PCB temperature 90℃±5℃
	Recover 65℃±5℃
Communicating Function	/

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Constant Current Discharge Data（Amperes@25℃）

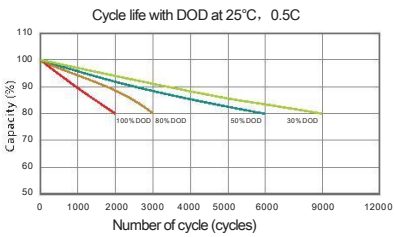
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	40A	20A	13.3A	8A	4A

Constant Power Discharge Data（Watt@25℃）

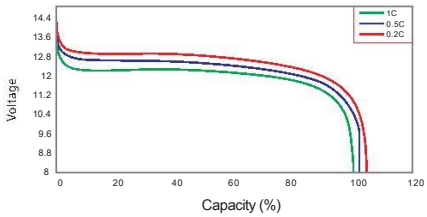
	1h	2h	3h	5h	10h
Cut-off voltage (10.8V)	460W	232W	155W	93.6W	47.2W

Cycle No.Vs DOD%

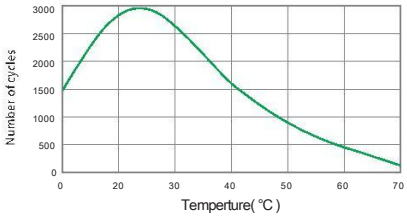
Number of Cycles Vs. DOD



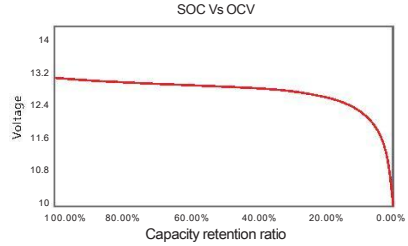
Discharge Performance at R.T.



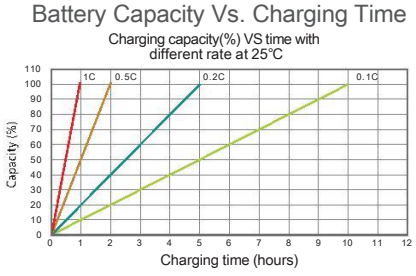
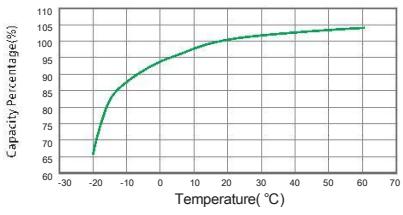
Cycle Life in Relation to Temperature



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



Battery Capacity Vs. Charging Time



Temperature Effects on Capacity