

# ALPHA 4

Lithium Iron Phosphate Battery

## 2560Wh

Nominal Energy

## 100Ah

Nominal Capacity

## 25.6V

Nominal Voltage

## 100A

Max Charge Current



## FEATURES



Internal heat technology



Longevity of service



Real-Time Monitoring

Monitors the battery operation status on mobile devices in real time with the built-in Bluetooth module



IP65 waterproof and dustproof



Flame retardant rating: UL94 V-0 (Plastic shell)



Green energy without metal contaminant



Extremely high number of charge / discharge cycles



Light weight, small size



In the extreme performance safety test, the battery will not catch fire, explode, or leak, and will be safer to use



Sophisticated Battery Management System (BMS)

**BMS OPERATION**

Typical Charging Current	50A
Maximum Charging Current	100A
Typical Discharge Current	50A
Max Discharge Current	100A
Maximum Charge Voltage(CC/CV)	28.8V

**Over Charge Protection**

Voltage(Cell)	3.65V±0.05V
Delay Time	2000ms±1000ms
Recovery Voltage(Cell)	3.55V±0.05V

**Over Discharge Protection**

Voltage(Cell)	2.50V±0.10V
Delay Time	2000ms±1000ms
Recovery Voltage(Cell)	3.00V±0.10V
Over Discharge Protection	Charging reaches
Release Conditions	recovery voltage

**Over-Current Charge**

Primary Charge Over Current Protection Value	120A±10A
First Stage Charge Over Current Delay	10S±3S
Over-current Charge Release Conditions	Automatic recover after a delay of 32S

**Over-Current Discharge**

Primary Discharge Over Current Protection Value	120A±10A
Primary Discharge Over Current Protection Delay	10S±3S
Secondary Discharge Over Current	300A±60A
Protection Current Value	
Secondary Discharge Over Current	50ms~400ms
Protection Delay	
Over-current Discharge Release	Automatic recover after a delay of 32S
Short Circuit Protection Delay Time	70μs~1500μs
Short Circuit Protection Recovery	Recover by releasing load after approximately 5s

**Discharge High Temperature Protection**

Temperature Protection Value	65°C±5°C
Temperature Protection Release Value	60°C±5°C

**Low Temperature Protection Of Discharge**

Temperature Protection Value	-20°C±5°C
Temperature Protection Release Value	-10°C±5°C

**Charging High Temperature Protection**

Temperature Protection Value	55°C±5°C
Temperature Protection Release Value	50°C±5°C

**Charging Low Temperature Protection**

Temperature Protection Value	5°C±5°C
Temperature Protection Release Value	10°C±5°C

**High Temperature Protection Of Fet(Built-in)**

Temperature Protection Value	110°C±5°C
Temperature Protection Release Value	85°C±5°C

**Balance Function**

Equalizing Opening Voltage	3.45V±0.05V
Equalize The Opening Pressure Difference	20mV
Min Balance Current	20mA
Max Balance Current	70mA
Storage Temperature	Passive equalization
Heating Function	200W

**SPECIFICATIONS**

Battery Type	LFP Battery
Nominal Voltage	25.6V
Nominal Capacity	100Ah
Minimum Capacity	100Ah
Nominal Energy	2560Wh
Charging Voltage	28.8V
Discharging Cutoff Voltage	22.4V
Standard Charging Current	50A
Maximum Charging Current	100A
Standard Discharge Current	50A
Continuous Discharge Current	100A
Maximum Discharge Current	100A
Shell Material	Plastic Shell
Weight	48.50lb
Initial AC (1000HZ) Internal Resistance	≤50mΩ
Monthly Self-Discharge Rate	≤5%
Overall Dimensions	20.9x8.1x8.5in
Cycle Life(Times)(25°C±2°C)	≥5000

**Charging Temperature**

(0°C~10°C)	30A
10°C~20°C	50A
20°C~40°C	50A
40°C~55°C	30A

Discharge Temperature	-20°C~60°C (The surface temperature of the cell should not exceed 60°C)
	-30°C~55°C 90%RH Max

Storage Temperature	(Less than 1 month)
	-10°C~45°C 90%RH Max
	(More than 3 months)

Recommended	-10°C~35°C 85%RH Max
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Storage Temperature	(Battery life decreases when stored in high temperature)
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