ALPHA 4
Lithium Battery
Lithium Iron Phosphate Battery

2560Wh
Nominal Energy

100Ah
Nominal Capacity

25.6V
Nominal Voltage

50A
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 rating
- 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, leak, and be safer to use
- Sophisticated Battery Management System (BMS)
**BMS OPERATION**

- **Typical Charging Current**: 50A
- **Maximum Charging Current**: 50A
- **Typical Discharge Current**: 50A
- **Max Discharge Current**: 100A
- **Maximum Charger 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 Release Conditions**: Charging reaches 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 Protection Current Value: 300A±60A
  - Secondary Discharge Over Current Protection Delay: 50ms~400ms
  - 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
- **Equilibrium Type**: 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**: 50A
- **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) ≥3200; Capacity Retention≥80%**
- **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)
- **Storage Temperature**: -30°C~55°C 90%RH Max (Less than 1 month)
- **-10°C~45°C 90%RH Max** (More than 3 months)
- **Recommended Storage Temperature**: -10°C~35°C 85%RH Max (Battery life decreases when stored in high temperatures)

SPECIFICATIONS INCLUDED IN THIS DATASHEET ARE SUBJECT TO CHANGE WITHOUT NOTICE.