



51.2V 100Ah LiFePO₄ Battery

Model: W5

FEATURES

- CLOSED LOOP COMMUNICATIONS

Compatible with multiple brands of inverters.

- REMOTE MONITORING APP

See real-time statistics of your battery.

- PARALLEL UP TO 15 BATTERIES

Get the most power possible! Up to 76.8 kWh while maintaining BMS communications.

- BUILT-IN CIRCUIT BREAKER

Offer fail-safe operation in high risk environments and protect against rare hardware failure on high voltage solar charge controllers.

- WELDED PRISMATIC CELL CONNECTIONS

Never worry about losing power due to a loose internal connection.

- RACK-MOUNT DESIGN

3U server rack mounting makes it convenient to store.

- LOW TEMPERATURE PROTECTION

Charging off below 32°F feature ensures stable charging performance in cold weather conditions.



US CONFORMS TO
ANSI/CAN/UL 1973
Intertek
5029113

SPECIFICATIONS

| | |
|---|--------------------|
| Battery Type | LFP Battery |
| Nominal Voltage | 51.2V |
| Nominal Capacity | 100Ah |
| Minimum Capacity | 99.5Ah |
| Nominal Energy | 5120Wh |
| Charging Voltage | 57.6V |
| Discharging Cutoff Voltage | 44.8V |
| Standard Charging Current | 20A |
| Maximum Charging Current | 100A |
| Standard Discharge Current | 50A |
| Continuous Discharge Current | 100A |
| Maximum Discharge Current | 100A |
| Shell Material | Sheet metal casing |
| Weight | 99.20lb |
| Initial AC (1000Hz) Internal Resistance | ≤50mΩ |
| Monthly Self-Discharge Rate | ≤5% |

Overall Dimensions 17.7x17.8x5.2in

Cycle Life(Times)(77°F±3.6°F) ≥7000; Capacity Retention≥70%

Charging Temperature

32°F~50°F 0.1C

50°F~68°F 0.2C

68°F~77°F 0.5C

77°F~113°F 1.0C

113°F~131°F 0.3C

131°F~140°F 0.2C

Discharge Temperature -4°F~149°F (The surface temperature of the cell should not exceed 149°F)

Storage Temperature -4°F~113°F 90%RH Max (1 month)
32°F~95°F 90%RH Max (6 months)

Recommended 32°F~95°F 85%RH Max

Storage Temperature (The battery life would be reduced if battery is stored in high temperature.)

BMS OPERATION

| | | |
|------------------------------------|---|--|
| Operation Voltage | Voltage Range | 43.2~58.4V |
| Operation Current | Maximum Charging Current | 100A |
| | Maximum Discharge Current | 100A |
| Over Charge Protection | Maximum Charge Voltage (CC/CV) | 57.6V |
| | Over charge Protection Voltage(Cell) | 3.65V |
| | Over charge Protection Voltage (Battery) | 58.4V |
| | Over charge Protection Delay Time | 1000ms |
| | Over charge Protection Release Voltage (Cell) | 3.38V |
| | Over charge Protection Release Voltage (Battery) | 54V |
| | Over charge Protection Release Condition | Reaching release voltage, discharge current>2A or SOC<96% |
| Over Discharge Protection | Over Discharge Protection Voltage (Cell) | 2.7V |
| | Over Discharge Protection Voltage (Battery) | 43.2V |
| | Over Discharge Protection Delay Time | 1000ms |
| | Over Discharge Protection Release Voltage (Cell) | 2.95V |
| | Over Discharge Protection Release Voltage (Battery) | 47.2V |
| | Over Discharge Protection Release Condition | Reach the recovery voltage or charging current > 1A |
| Over-Current Charge | Primary Charge Over Current Protection Value | 110A |
| | First Stage Charge Over Current Delay | 1S |
| | Charging Overcurrent Release Conditions | Delay automatic recovery or discharge recovery The lock is locked after the protection count reaches 10 |
| | Release Conditions After Locking | Discharge current > 1A or restart the battery after shutdown |
| Over-Current Discharge | Primary Discharge Overcurrent Protection Value | 110A |
| | Primary Discharge Overcurrent Protection Delay | 1S |
| | Secondary Discharge Overcurrent Protection Current Value | 150A |
| | Secondary Discharge Overcurrent Protection Delay | 500ms |
| | Over-current Discharge Release | Delay automatic recovery or charge recovery The lock is locked after the protection count reaches 10 |
| | Restore Condition After Lock | Charge current > 1A or restart the battery after shutdown |
| Short Circuit | Protection Delay Time | 150μs |
| | Protection Release | Restore after charging or removing load |
| Discharge High | Temperature Protection Value | 140°F |
| | Temperature Protection Release Value | 122°F |
| Discharge Low | Temperature Protection Value | -4°F |
| | Temperature Protection Release Value | 5°F |
| Charging High | Temperature Protection Value | 140°F |
| | Temperature Protection Release Value | 122°F |
| Charging Low | Temperature Protection Value | 32°F |
| | Temperature Protection Release Value | 41°F |
| High Temperature Protection | Temperature Protection Value | 239°F |
| Of FET (Built-in) | Temperature Protection Release Value | 185°F |
| Balance Function | Equilibrium turning-on condition (turn-on voltage and turn-on/off voltage difference) | 3.4V (0.03V) |
| Operation Temperature | Normal Operating Range | -4~167°F |
| Storage Temperature | Humidity Below 70%, Time ≤1 year | 14~167°F |
| Charge Discharge Circuit | Charge Discharge Circuit | Same port for charging and discharging |