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XZNY Compact 12V 310Ah BT

XZNY Compact 12V 310Ah Bluetooth Lithium Battery Instruction Manual

Model: Compact 12V 310Ah BT | Brand: XZNY

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your XZNY Compact 12V 310Ah Bluetooth Lithium Iron Phosphate (LiFePO₄) Battery. Please read this manual thoroughly before installation and use. Retain this document for future reference.



Figure 1: XZNY Compact 12V 310Ah Bluetooth Lithium Battery and its accompanying mobile application interface.

2. PRODUCT FEATURES

- **Bluetooth Connectivity:** Real-time monitoring of battery State of Charge (SOC), temperature, voltage, and other statuses via a dedicated mobile application. Allows for battery renaming.
- **Compact Design:** Approximately 40% smaller than standard 12V 300Ah batteries and 55% smaller than three 12V 100Ah batteries, offering high capacity in a reduced footprint.
- **Long Lifespan:** Utilizes A-grade LiFePO4 cells, providing up to 5000 cycles and an estimated 10-year lifespan, ensuring high stability and safety.
- **Powerful Smart BMS:** Integrated Bluetooth 5.0 Battery Management System (BMS) with precise temperature protection (stops charging at 32°F / 0°C and discharging at -4°F / -20°C). Supports continuous charge/discharge current of 250A, peak current of 500A for 5 seconds, and a maximum output power of 3200W.
- **Excellent Expandability:** Can be expanded up to 4 batteries in series (for up to 48V) and 5 batteries in parallel (for up to 1550Ah), allowing for a battery system of up to 79.68KWh.
- **Wide Application:** Ideal for RVs, campers, off-grid systems, solar systems, and 12V trolling motors (30 to 120 pounds thrust).

3. WHAT'S IN THE BOX

- XZNY Compact 12V 310Ah LiFePO4 Battery
- XZNY Warranty Manual
- XZNY Product Manual and Start Guide
- M8 Terminals

4. SAFETY INFORMATION

- Do not short circuit, disassemble, crush, heat, or incinerate the battery.
- Do not immerse the battery in any liquid.
- Ensure screws are properly tightened when connecting batteries.
- Use a LiFePO4 battery charger with activation function to charge or else the charger won't recognize the battery when its voltage is low.
- Use a LiFePO4 battery charger to charge within the rated voltage and current range.

5. SETUP

5.1. Physical Connection

The battery comes with M8 terminals for secure connections. Ensure all connections are tight to prevent arcing and ensure optimal performance.

XZNY Compact 12V 310Ah Bluetooth Lithium Battery



Bluetooth 5.0



Compact Design



Temp Protection

Battery weight: 58.2 lbs

Package weight: 61.3 lbs



Actual capacity is approximately

325Ah

M8 TERMINAL



40%
VOLUME
REDUCTION

total length with handle: 15.08in / 383mm

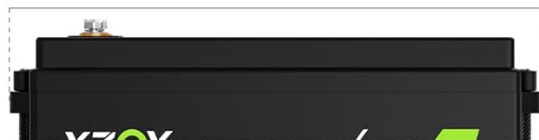


Figure 2: Battery dimensions and M8 terminal connection points.

5.2. Bluetooth App Installation & Connection

Download the XZNY app from the Google Play Store or Apple App Store. Search for "XZNY" to locate the application. Once installed, enable Bluetooth on your phone and open the app. The app will scan for nearby XZNY batteries. Select your battery from the device list to connect and begin monitoring.

COMPACT SIZE & BLUETOOTH 5.0

Real-time battery SOC monitoring via Bluetooth APP

Self-developed APP, interface is clear and easy to read.

Customizable battery name via APP

Remote control of charging & discharging

Multiple battery data charts available

Search for "XZNY"

Get it on
 Google Play

Download on the
 App Store



Figure 3: XZNY Bluetooth app interface with battery monitoring and app download options.

6. OPERATION

6.1. Battery Monitoring via Bluetooth App

The XZNY app provides real-time data including State of Charge (SOC), temperature, voltage, current, and power. You can also view individual cell voltages for comprehensive battery health monitoring. The app allows for customizable battery names and remote control of charging and discharging functions.

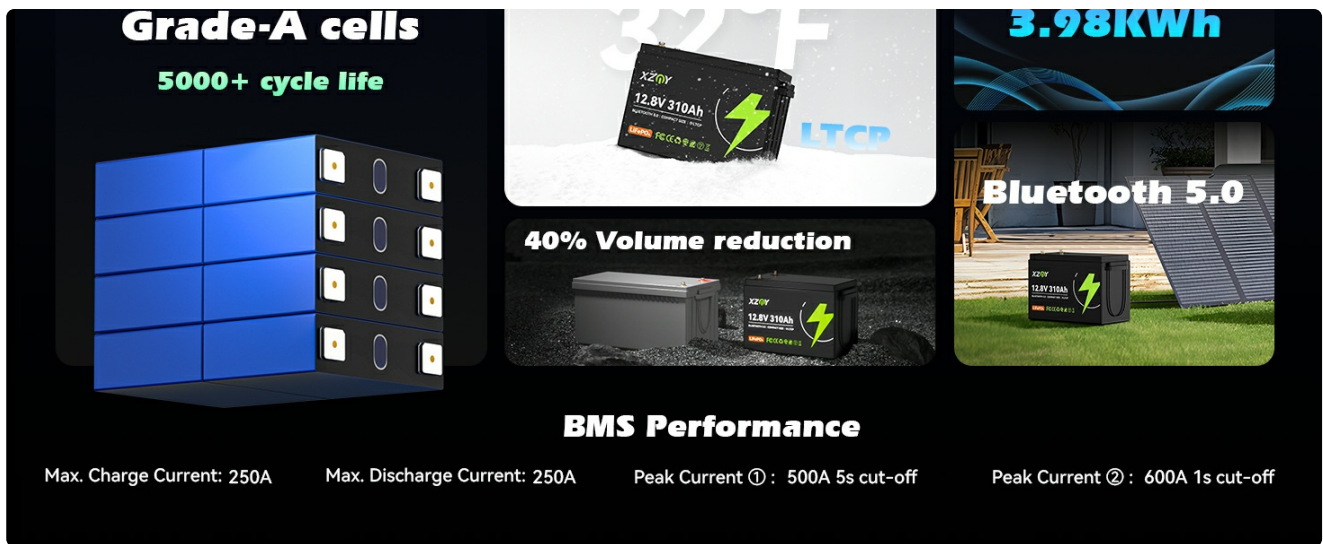


Figure 4: Real-time battery monitoring through the XZNY Bluetooth app.

6.2. Charging

It is recommended to use a 12V (14.6V) 50A LiFePO4 charger to fully charge the battery in approximately 6.5 hours. The battery can also be charged via solar panels with an MPPT controller or a generator with a DC-to-DC charger.

Comprehensive functionality, supports single cell voltage monitoring.

Independent monitoring of each cell, allowing you to view the voltage of each cell, the voltage difference across the battery pack, and the balance status in real time.

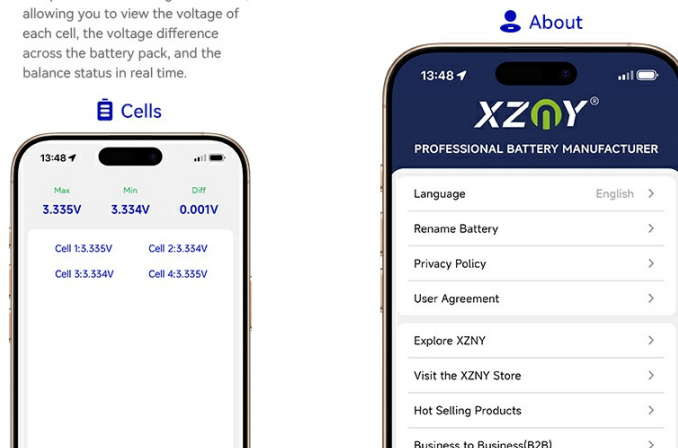


Figure 5: Recommended charging methods and estimated charging time.

6.3. Discharging/Load Usage

The battery is suitable for various applications including RVs, campers, off-grid systems, solar systems, and 12V trolling motors. The powerful Smart BMS ensures stable power delivery with a maximum output of 3200W.

Huge capacity, providing ample power while saving more vehicle space!



Figure 6: The XZNY battery providing power for an RV setup.

6.4. Series and Parallel Connection

The XZNY 12V 310Ah battery offers excellent expandability. It can be connected in series for higher voltage (up to 48V with 4 batteries) and in parallel for greater capacity (up to 1550Ah with 5 batteries). This allows for a total system capacity of up to 79.68KWh.



Figure 7: Expandability options for the XZNY battery system.

7. MAINTENANCE

7.1. Long-Term Storage

It is recommended to charge the battery to 50% every 3 months if it is to be left unused for a long time. This helps maintain battery health and extends its lifespan.

7.2. Anti-Swelling Fixture

The battery incorporates an anti-swelling fixture inside. This fixture provides a stable, inward force that prevents the cells from expanding due to overcharging, aging, or high temperatures, thus greatly improving the battery's performance and longevity.



Figure 8: Illustration of the internal anti-swelling fixture for enhanced battery stability.

8. TROUBLESHOOTING

The integrated Smart BMS provides precise temperature protection, stopping charging at 32°F (0°C) and discharging at -4°F (-20°C). If any issues arise, the Bluetooth app can provide diagnostic information and notifications regarding battery status and potential faults. Refer to the app's troubleshooting guide for specific error codes and solutions.

Video 1: Demonstrates battery testing, connection, and app monitoring features, which can aid in troubleshooting.

9. SPECIFICATIONS

Specification	Value
Product Dimensions	13.74"D x 7.49"W x 9.65"H
Item Weight	56.8 pounds
Brand	XZNY
Model Number	Compact 12V 310Ah BT
Terminal Type	M8 Terminal
Battery Capacity	310 Amp Hours
Rated Voltage	12.8V
Continuous Charge/Discharge Current	250A
Peak Current	500A (for 5s)
Max Output Power	3200W
Charging Temperature Range	32°F / 0°C to 131°F / 55°C
Discharging Temperature Range	-4°F / -20°C to 131°F / 55°C

10. WARRANTY AND SUPPORT

XZNY offers a 3-year replacement warranty for any quality issues. If problems occur after the 3-year period, the technical team will still provide after-sales options and support. For assistance, please refer to the contact information provided in your product manual or visit the XZNY store on Amazon.