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› FLLYROWER 36V 100AH Smart LiFePO4 Battery User Manual

FLLYROWER FX36100-BT-1128

FLLYROWER 36V 100AH Smart LiFePO4 Battery User Manual

Model: FX36100-BT-1128

1. INTRODUCTION AND OVERVIEW

This manual provides essential information for the safe and efficient use of your FLLYROWER 36V 100AH Smart LiFePO4 Battery. This high-performance lithium iron phosphate battery is designed for deep cycle applications, featuring a robust 200A Smart Battery Management System (BMS) and Grade A cells, ensuring reliability and longevity.

The FLLYROWER 36V 100AH Smart LiFePO4 battery is suitable for various applications including marine trolling motors, RVs, camping setups, solar energy systems, golf carts, and off-grid power solutions.



Image 1.1: FLLYROWER LiFePO4 battery applications including RV, boat, golf cart, solar, and off-grid systems.

2. KEY FEATURES

- **Deep Cycle Capability:** Utilizes Grade A cells, offering up to 16500 deep cycles for extended lifespan without constant monitoring.
- **Smart BMS with Multiple Protections:** Integrated 200A Smart BMS provides comprehensive protection against low-temperature, high-temperature, short circuit, overdischarge, overcharge, and overcurrent conditions.
- **Capacity Expansion:** Supports parallel connection for increased capacity. **Note:** This battery model cannot be connected in series.
- **Lightweight Design:** Significantly lighter than traditional lead-acid batteries, equipped with a handle for convenient transportation and installation.
- **Bluetooth Connectivity:** Monitor battery status in real-time via a dedicated Bluetooth application on your smartphone.

FLLYROWER POWERFUL BMS AND GRADE A CELLS

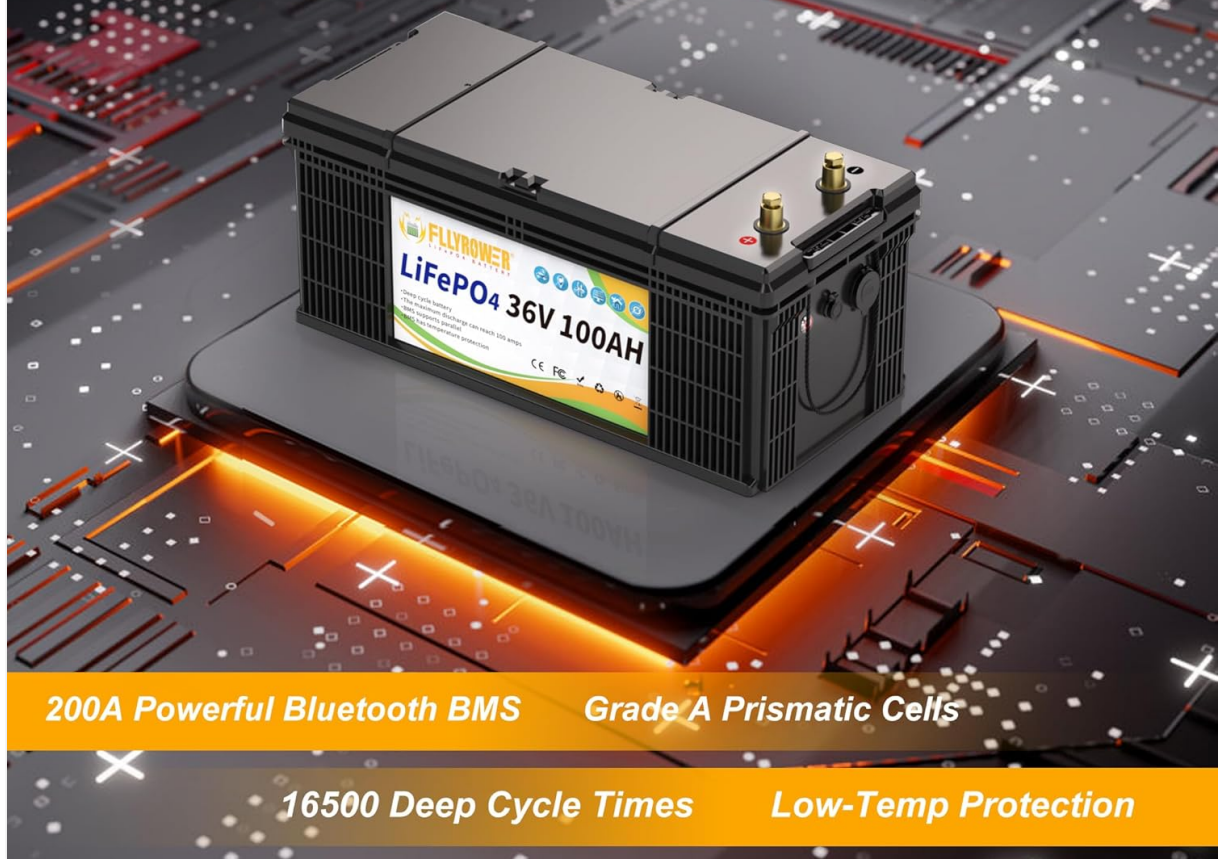


Image 2.1: Illustration of FLYROWER LiFePO4 battery with powerful BMS and Grade A cells.

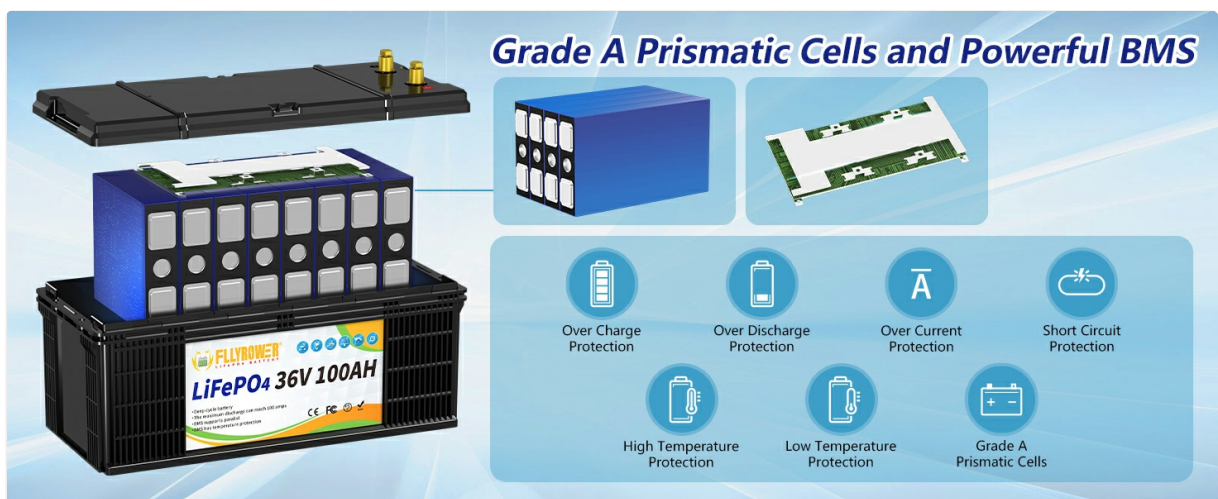


Image 2.2: Detailed view of Grade A Prismatic Cells and the multiple protection functions of the BMS, including over charge, over discharge, over current, short circuit, high temperature, and low temperature protection.

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Video 2.1: An overview of the FLYROWER LiFePO4 Battery, highlighting its deep cycle capability, powerful BMS with multiple protection functions, Grade A cells, and ease of use.

3. SAFETY INFORMATION

Always prioritize safety when handling and operating the battery. Failure to follow safety guidelines can result in injury or damage to the battery and connected equipment.

- Do not short circuit the battery terminals.
- Do not disassemble, puncture, or modify the battery.
- Keep the battery away from water, fire, and extreme heat sources.
- Use only chargers specifically designed for LiFePO4 batteries with the correct voltage and current ratings.
- Ensure proper ventilation during charging and operation.
- Avoid dropping or subjecting the battery to severe impacts.
- The integrated BMS provides protection, but it is not a substitute for careful handling and adherence to safety practices.

4. SETUP AND INSTALLATION

4.1 Unpacking

Carefully remove the battery from its packaging. Inspect the battery for any signs of damage during transit. If damage is observed, contact customer support immediately.

4.2 Terminal Connections

The battery is equipped with M8 terminal bolts. Ensure all connections are clean, tight, and secure to prevent resistance and overheating. Use appropriate tools for tightening connections.

36V 100AH DIMENSIONS



Image 4.1: Dimensions of the 36V 100AH battery and detail of the M8 terminal bolts for connection.

4.3 Parallel Connection

For increased capacity, multiple FLYROWER 36V 100AH batteries can be connected in parallel. Ensure all batteries are at a similar state of charge before connecting them in parallel. Use appropriately sized cables for parallel connections to handle the combined current.

Important: This battery model does not support series connection. Attempting to connect these batteries in series may damage the battery and void the warranty.

4.4 Initial Charging

Before first use, it is recommended to fully charge the battery using a compatible LiFePO4 charger. Refer to your charger's manual for specific charging instructions.

5. OPERATING INSTRUCTIONS

5.1 Charging

Always use a LiFePO4 compatible charger with the correct voltage and current output. Overcharging or using an incompatible charger can damage the battery. The BMS will protect against overcharge, but using the correct charger is crucial for optimal battery health.

5.2 Discharging

The battery is designed for deep cycling. The BMS will automatically cut off power to prevent over-discharge, protecting the battery cells. Ensure your load does not exceed the battery's maximum continuous discharge current.

5.3 Bluetooth App Monitoring

Download the FLLYROWER Bluetooth app to monitor your battery's status in real-time. The app provides information such as state of charge (SOC), voltage, current, temperature, and cycle count. This allows for proactive management of your battery's performance.



Image 5.1: A smartphone screen showing the FLLYROWER Bluetooth app interface, used to monitor battery status such as charge percentage, voltage, and protection status.

6. MAINTENANCE

FLLYROWER LiFePO4 batteries are designed to be largely maintenance-free. However, periodic checks can help ensure optimal performance and longevity.

- **Regular Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean terminals if necessary.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50-70%

of its capacity. Store in a cool, dry place within the recommended temperature range.

- **Temperature Range:** The battery is designed to operate and be stored within a temperature range of -20°C to 60°C. Extreme temperatures outside this range can affect performance and lifespan.



Image 6.1: Illustration of the recommended operating and storage temperature range for the battery, from -20°C to 60°C.

7. TROUBLESHOOTING

If you encounter issues with your FLLYROWER battery, refer to the following common troubleshooting steps:

- **Battery Not Charging:**
 - Ensure the charger is correctly connected and functioning.
 - Verify the charger is compatible with LiFePO4 batteries.
 - Check for any BMS protection activations (e.g., low-temperature cutoff). Monitor via the Bluetooth app.
- **No Power Output:**
 - Check all terminal connections for tightness and corrosion.
 - Verify the battery's state of charge using the Bluetooth app.
 - Check for BMS protection activations (e.g., over-discharge, short circuit).
- **Unusual Behavior:** If the battery exhibits unusual heat, smell, or swelling, immediately disconnect it from all loads and chargers and contact customer support.

8. SPECIFICATIONS

Specification	Value
Model Number	FX36100-BT-1128
Nominal Voltage	36V
Nominal Capacity	100AH
BMS	200A Smart BMS
Cell Type	Grade A Prismatic LiFePO4

Deep Cycle Life	Up to 16500 cycles
Dimensions (L x W x H)	525mm x 230mm x 220mm (20.67 x 9.06 x 8.66 inches)
Operating Temperature Range	-20°C to 60°C
Parallel Connection	Supported
Series Connection	Not Supported

9. WARRANTY AND SUPPORT

FLLYROWER is committed to providing reliable products. While specific warranty details are not provided in this manual, the product is designed for long-term performance with Grade A cells and a robust BMS.

For any technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact FLLYROWER customer support. Repair services are available at our location in Texas.



Image 9.1: Illustration indicating free maintenance and repair services available in Texas.

