

OGRPHY LAF48100

OGRPHY 48V 100AH Lithium Battery User Manual

Model: LAF48100 | Brand: OGRPHY

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your OGRPHY 48V 100AH LiFePO4 Lithium Battery. Please read these instructions carefully before installation and operation to ensure optimal performance and longevity of your battery system. This battery is designed for various applications including golf carts, trolling motors, solar systems, RVs, and marine use.

2. SAFETY INFORMATION

Always prioritize safety when handling and installing batteries. Failure to follow safety guidelines can result in injury or damage to equipment.

- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not expose the battery to extreme temperatures, direct sunlight, or water beyond its IP65 rating.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection during installation.
- Do not attempt to open or modify the battery casing. Internal components are not user-serviceable.
- Keep children and pets away from the battery and charging area.
- In case of fire, use a Class D fire extinguisher. Water can exacerbate lithium battery fires.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1 x OGRPHY 48V 100AH LiFePO4 Battery
- 1 x OGRPHY 58.4V 18A LiFePO4 Battery Charger
- 1 x LCD Battery Monitor
- M8 Terminals
- Product Manual (this document)

LIGHT WEIGHT & HIGH QUALITY

Sizes: 20.4 x 10.6 x 8.6 inch

Weight: 88.1 lbs

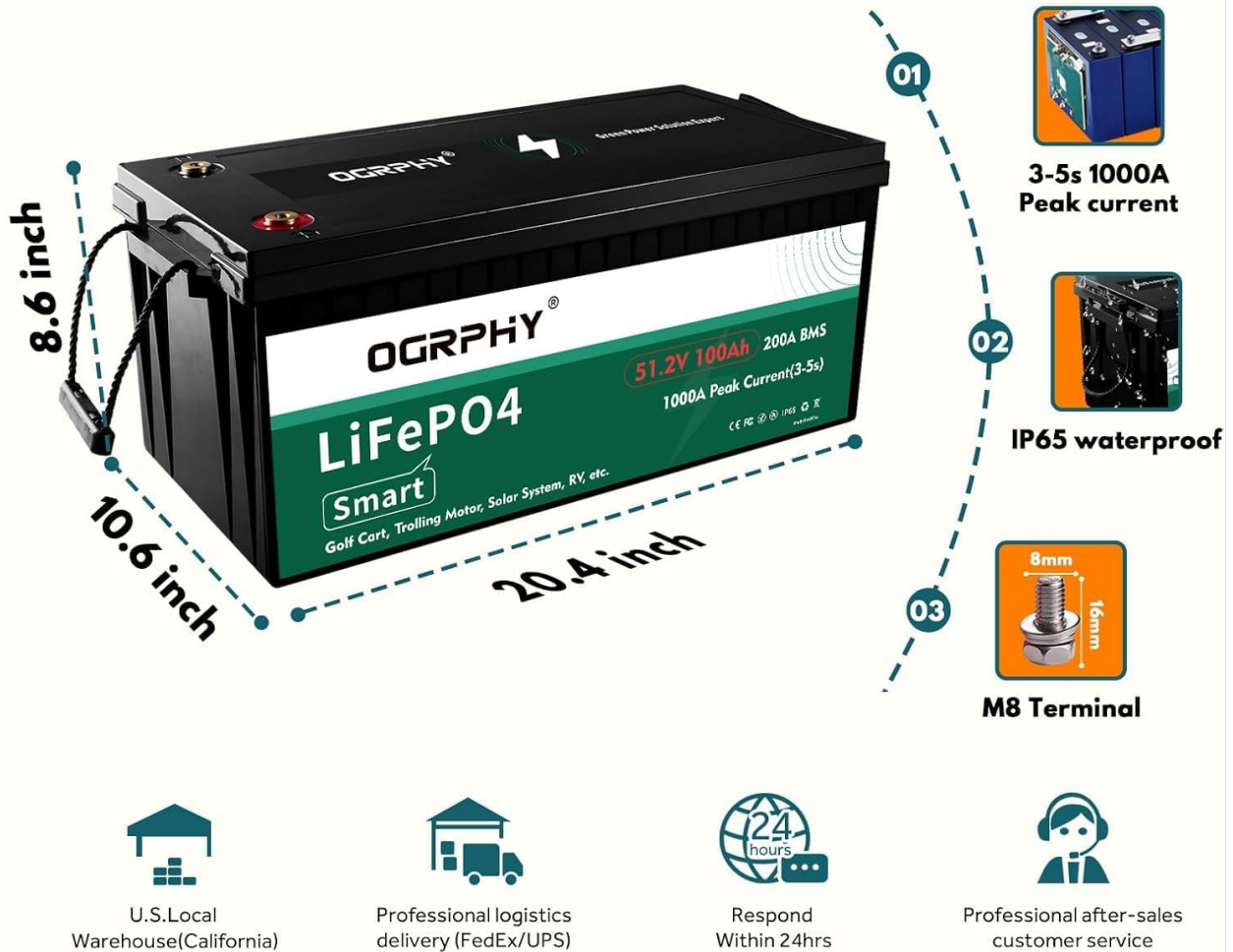


Figure 1: OGRPHY 48V 100AH Lithium Battery Kit Contents

4. SETUP

4.1 Battery Installation

The OGRPHY 48V 100AH LiFePO4 battery is designed for straightforward installation. Ensure the battery is securely mounted in a well-ventilated area, away from direct heat sources or flammable materials. The battery weighs approximately 88.1 pounds. Use appropriate lifting techniques or assistance during installation.



Figure 2: OGRPHY 48V 100AH Lithium Battery

4.2 Charger Connection

Connect the provided OGRPHY 58.4V 18A LiFePO4 battery charger to the battery. This charger features a 0V charge function to reactivate batteries that have entered a low voltage state. The charger can be mounted onboard your golf cart for convenient charging through existing charge ports.

4.3 LCD Monitor Connection

Connect the LCD monitor to the battery system following the instructions provided in the monitor's specific manual. This monitor displays real-time battery parameters, including individual cell information. It can be mounted in a visible location, such as the dashboard of a golf cart, for easy monitoring during use.

Lifepo4 Battery

Notes

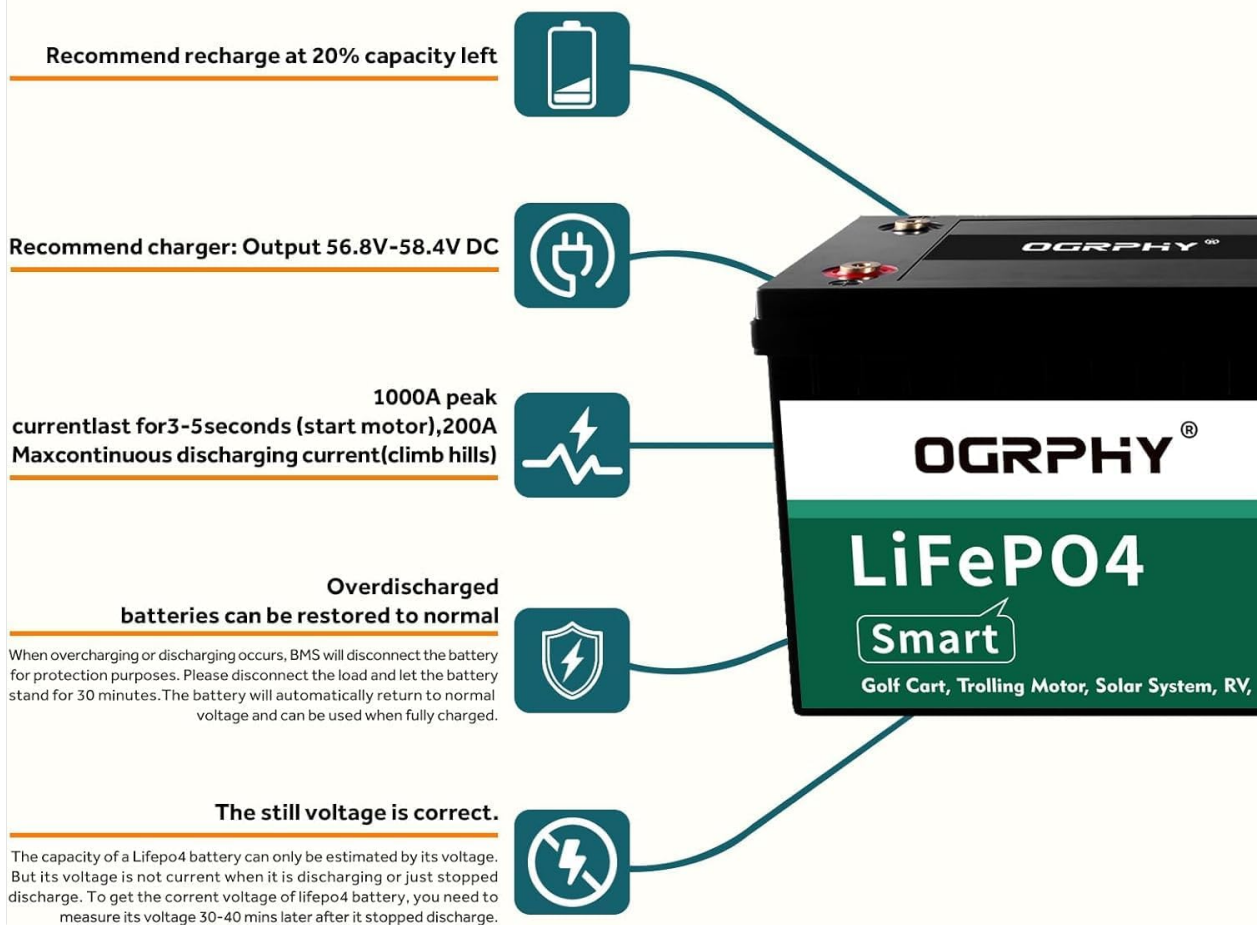


Figure 3: OGRPHY LCD Battery Monitor

4.4 Bluetooth App Connection

The battery features a smart Bluetooth BMS for mobile monitoring. Download the OGRPHY app (refer to the product packaging or included documentation for download instructions). Enable Bluetooth on your mobile phone and connect to the battery within the app. All battery parameters will be displayed on your phone.

Suitable for Various Occasions



48V DC Golf cart



Solar System



RV



Marine

Figure 4: OGRPHY Mobile App Interface

5. OPERATING INSTRUCTIONS

5.1 Charging

Use only the provided OGRPHY 58.4V 18A LiFePO4 charger. Connect the charger to a standard AC outlet and then to the battery's charging port. The charger will indicate charging status. A full charge from empty typically takes approximately 4 hours, with an 80% charge achievable in about 2 hours.

5.2 Discharge Guidelines

It is recommended to recharge the battery when its capacity reaches 20%. The battery is designed to provide consistent power, with a continuous discharge current of up to 200A. Peak discharge current can reach 1000A for 3-5 seconds, and 300A for 32 seconds, suitable for high-power demands like starting motors or climbing inclines.

5.3 Bluetooth and LCD Monitoring

Regularly monitor battery status using either the mobile app or the LCD monitor. These tools provide real-time data on voltage, current, temperature, and individual cell balance, allowing you to optimize battery usage and identify potential issues early.

5.4 Application Scenarios

The OGRPHY 48V 100AH LiFePO4 battery is versatile and suitable for:

- **Golf Carts:** Provides approximately 30 miles of range for a 3KW golf motor.
- **Trolling Motors:** Capable of powering 70lbs thrust trolling motors.
- **Solar Systems:** Supports up to 20.48kWh when connected in parallel (up to 4 batteries).
- **RV & Marine:** Ideal for recreational vehicles and marine applications requiring reliable 48V power.



Figure 5: Battery in a Solar System Application with Mobile Monitoring

6. MAINTENANCE

6.1 General Care

LiFePO4 batteries are low-maintenance. Keep the battery terminals clean and free of corrosion. Periodically check all cable connections for tightness. Store the battery in a cool, dry place if not in use for extended periods, ideally at a state of charge between 50-80%.

6.2 Overcharged Battery Recovery

In the event of an overcharge or over-discharge, the built-in Battery Management System (BMS) will disconnect the battery for protection. To restore an overcharged battery to normal operation, disconnect the load and allow the battery to rest for approximately 30 minutes. The battery will automatically return to normal voltage and can be used once fully charged.

6.3 Voltage Checks

The capacity of a LiFePO4 battery can be estimated by its voltage. However, voltage is not current when the battery is discharging or has just stopped discharging. To accurately measure the current voltage of the LiFePO4 battery, wait 30-40 minutes after it has stopped discharging.

7. TROUBLESHOOTING

- **Battery Not Charging:** Ensure the charger is properly connected to both the battery and a working power outlet. Check for any error indicators on the charger or LCD monitor.
- **No Power Output:** Verify all connections are secure. The BMS may have activated a protection mode (e.g., low voltage, over current). Check the LCD monitor or mobile app for BMS status.
- **LCD Monitor Display Issues:** If the LCD monitor is stuck or not displaying correctly, ensure its connection cable is firmly seated. Refer to the monitor's specific manual for troubleshooting steps.
- **Bluetooth Connection Problems:** Ensure Bluetooth is enabled on your mobile device and the OGRPHY app has necessary permissions. Try restarting the app or your phone.
- **Reduced Range/Performance:** Check the battery's state of charge. Ensure the battery is fully charged before use. Verify that the application's power draw is within the battery's specifications.

8. SPECIFICATIONS

Feature	Specification
Brand	OGRPHY
Model	LAF48100
Voltage	48V
Battery Capacity	100 Amp Hours (AH)
Energy Capacity	5.12 kWh
Continuous Discharge Current	200 Amps
Peak Discharge Current	1000 Amps (3-5 seconds)
Number of Cells	16
Internal Resistance	10 Milliohms
Terminal Type	M8

Feature	Specification
Product Dimensions (D x W x H)	10.6" x 20.4" x 8.6"
Item Weight	88.1 pounds
Charger Output	58.4V 18A
BMS Features	Low/Over Voltage Protection, Over Current Protection, Short Circuit Protection, Low/High Temperature Protection, Bluetooth Monitoring
Lifetime	10 Years / 5000+ Deep Cycles
Certifications	UL certified cells
Waterproof Rating	IP65

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The OGRPHY 48V 100AH LiFePO4 battery is built with Grade A cells and designed for a long lifespan of 10 years and over 5000 deep cycles. Specific warranty terms and conditions are typically provided with your purchase documentation. Please retain your proof of purchase for warranty claims.

9.2 Technical Support

OGRPHY offers 24-hour support for any technical issues or questions you may encounter. Please refer to the contact information provided with your product or on the official OGRPHY website for assistance.