

[Manuals.plus](#) /

› [Redodo](#) /

› Redodo 12.8V 100Ah LiFePO4 Battery and 14.6V 20A Charger Instruction Manual

Redodo 12V100Ah

Redodo 12.8V 100Ah LiFePO4 Battery and 14.6V 20A Charger Instruction Manual

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient use of your Redodo 12.8V 100Ah LiFePO4 Battery and its dedicated 14.6V 20A Lithium Battery Charger. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of your product.



Image 1.1: The Redodo 12.8V 100Ah LiFePO4 Battery and its accompanying 14.6V 20A Lithium Battery Charger.

2. SAFETY INFORMATION

Always prioritize safety when handling batteries and electrical equipment. Failure to follow these safety guidelines may result in injury or damage to the product.

- Do not short-circuit the battery terminals.
- Use only the dedicated Redodo 14.6V 20A charger or a compatible LiFePO4 charger.
- Keep the battery away from heat sources, open flames, and flammable materials.
- Do not immerse the battery in water or expose it to excessive moisture.
- Avoid dropping or subjecting the battery to severe impacts.
- Ensure proper ventilation during charging and operation.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection when handling batteries.
- This battery is not suitable for use as a starter battery, golf cart battery, or for high-power applications such as water pumps, electric jacks, elevator lifts, pool vacuums, or mowers.



Output Short-Circuit
Protection



Temperature
Protection



Output Over-Voltage
Protection



Reverse Polarity Connection
Protection

Comprehensive, reliable, and secure multiple technologies to ensure security

Maintain the good battery performance & extend its lifespan.

Image 2.1: The charger includes multiple protection features such as output short-circuit, temperature, output over-voltage, and reverse polarity connection protection to ensure safe operation.

3. PRODUCT OVERVIEW

3.1 Battery Features

- **Chemistry:** Lithium Iron Phosphate (LiFePO₄)
- **Nominal Voltage:** 12.8V
- **Capacity:** 100Ah
- **Built-in BMS:** 100A Battery Management System for protection against overcharge, over-discharge, over-current, and short-circuit.
- **Cycle Life:** Approximately 4000-15000 cycles.
- **Terminals:** M8

3.2 Charger Features

- **Output Voltage:** 14.6V

- **Output Current:** 20A
- **Charging Stages:** CC/CV (Constant Current/Constant Voltage) two-stage charging.
- **0V Charging Function:** Activates batteries protected by BMS.
- **Indicator Lights:** Displays charging status (Fully Charged, Stand By, Charging, Fault).

Dedicated LiFePO4 Battery Charger

-  Balancing battery cells
-  Optimize the performance of the battery
-  Fully charged in around 10 hours



Image 3.1: The dedicated LiFePO4 charger is designed to balance battery cells, optimize performance, and fully charge the battery efficiently.

Product Details

14.6V 20A LiFePO4 Battery Charger

Pluggable connection,
simple and convenient wiring

Humanized design of
indicator light colors



Image 3.2: Detailed view of the 14.6V 20A LiFePO4 battery charger, highlighting its pluggable connection and indicator light design.

4. SETUP AND INSTALLATION

4.1 Initial Inspection

Upon receiving your product, inspect both the battery and charger for any visible damage. If any damage is found, contact customer support immediately.

4.2 Connecting the Battery and Charger

1. Ensure the charger is unplugged from the AC power outlet.
2. Connect the charger's output cables to the battery terminals. Ensure correct polarity: red to positive (+), black to negative (-).
3. Plug the charger into a standard AC power outlet.

Excellent Performance for LiFePO4 Battery

Compatible with any 12V LiFePO4 battery



Image 4.1: The Redodo 12.8V 100Ah LiFePO4 battery connected to its 14.6V 20A charger, which is plugged into a wall outlet.

4.3 Capacity Expansion (Optional)

The Redodo LiFePO4 battery supports capacity expansion by connecting multiple batteries in series or parallel. Consult the diagram below for a typical solar power system setup with capacity expansion.

SUPPORT CONNECTION FOR CAPACITY EXPANSION

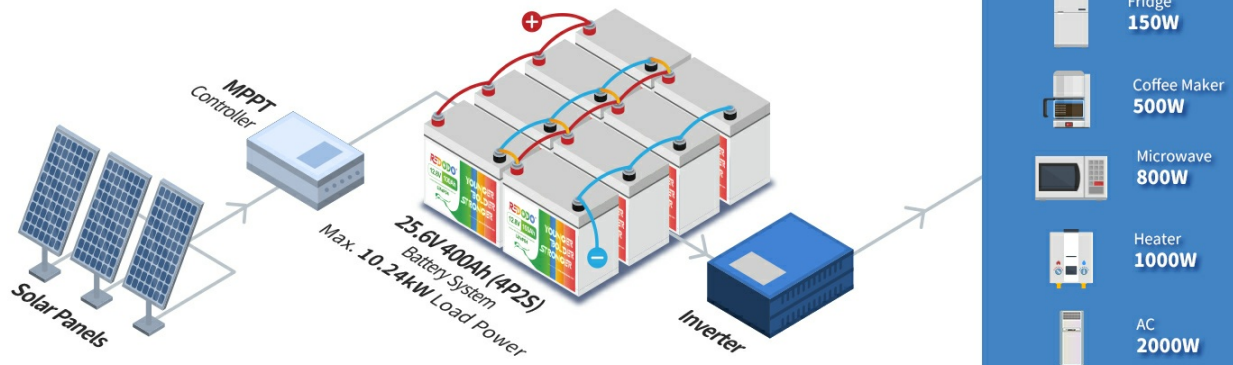


Image 4.2: Diagram illustrating a battery system setup for capacity expansion, including solar panels, MPPT controller, multiple batteries, and an inverter.

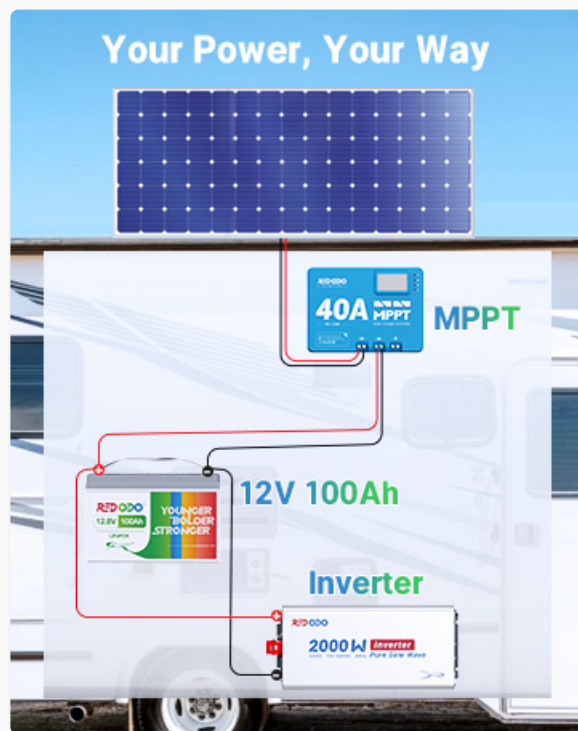


Image 4.3: A typical solar power system setup showing connections between a solar panel, MPPT controller, Redodo 12V 100Ah battery, and an inverter.

5. OPERATING INSTRUCTIONS

5.1 Charging the Battery

The dedicated 14.6V 20A charger is designed for efficient and safe charging of your LiFePO4 battery. A full charge typically takes approximately 5 hours.

1. Connect the charger to the battery and then to an AC power source as described in Section 4.2.
2. The charger's indicator light will show the charging status.
3. Once fully charged, the charger will automatically stop charging. Disconnect the charger from the AC outlet first, then from the battery.

5.2 Alternative Charging Methods

In addition to the included charger, the battery can be recharged using other compatible methods:

- **Generator:** Using a 20A AC to AC charger.
- **Alternator:** Using a 20A DC to DC charger.
- **Solar Panel:** With an MPPT controller, a solar panel array of over 400W is recommended for efficient charging.

4 WAYS OF RECHARGING THE BATTERY



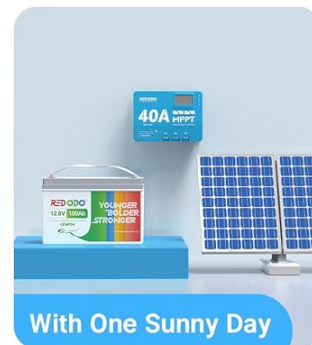
Lithium Battery Charger
12V(14.6V)20A



Generator
20A AC to AC Charger



Alternator
20A DC to DC Charger



Solar Panel+MPPT
Recommend>400W

Image 5.1: Illustration of four different methods to recharge the Redodo LiFePO₄ battery: Lithium Battery Charger, Generator, Alternator, and Solar Panel with MPPT controller.

5.3 Discharging the Battery

Connect your load to the battery terminals, ensuring correct polarity. The built-in BMS will protect the battery from over-discharge. Disconnect the load when the battery reaches its low voltage cut-off or when not in use.

6. APPLICATIONS

The Redodo 12.8V 100Ah LiFePO₄ battery is versatile and suitable for various applications requiring reliable power storage.

- **RV & Camping:** Provides power for recreational vehicles and outdoor camping setups.
- **Solar Home:** Ideal for residential solar energy storage systems.
- **Off-Grid Systems:** Powers remote cabins or off-grid installations.
- **Marine & Boat:** Suitable for marine applications, including trolling motors.



Image 6.1: A collage demonstrating various applications for the Redodo LiFePO4 battery, including home energy storage, RVs & camping, off-grid systems, and trolling motors.



Image 6.2: The Redodo LiFePO4 battery powering a trolling motor on a fishing boat.

7. MAINTENANCE

Proper maintenance ensures the longevity and performance of your Redodo LiFePO4 battery.

- **Regular Inspection:** Periodically check the battery and terminals for any signs of corrosion, damage, 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 away from direct sunlight and extreme temperatures.
- **Charging Frequency:** For optimal lifespan, avoid leaving the battery fully discharged for long periods. Recharge promptly after use.
- **Cleaning:** Use a dry cloth to clean the battery and charger. Do not use solvents or abrasive cleaners.

8. TROUBLESHOOTING

If you encounter issues with your Redodo battery or charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Battery not charging	Loose connections, faulty charger, battery in BMS protection mode.	Check all connections. Ensure charger is plugged in. The 0V charging function of the Redodo charger can reactivate a BMS-protected battery.
Charger indicator light shows 'Fault'	Incorrect polarity, short circuit, internal charger fault.	Verify correct polarity. Check for short circuits. If the issue persists, contact customer support.
Battery not providing power	Battery discharged, BMS protection activated, loose load connection.	Recharge the battery. Check load connections. If BMS is activated, recharge with the dedicated charger.
Reduced battery performance	Operating outside recommended temperature range, aging.	Ensure operation within specified temperature limits. Battery capacity naturally degrades over many years of use.

If troubleshooting steps do not resolve the issue, please contact Redodo customer support.

9. SPECIFICATIONS

9.1 Redodo 12.8V 100Ah LiFePO4 Battery

- **Brand:** Redodo
- **Model:** 12V100Ah
- **Product Dimensions:** 13"W x 6.77"D x 8.5"H
- **Item Weight:** 22.04 lbs (approx.)
- **Resistance:** 40 Milliohms
- **Terminal Type:** M8
- **UPC:** 723884710185

9.2 Redodo 14.6V 20A Lithium Battery Charger

- **Brand:** Redodo
- **Model:** 14.6V20A Charger
- **Product Dimensions:** 8.13"L x 3.56"W x 2.5"H (approx.)
- **Item Weight:** 2.87 lbs (approx.)

LIGHT WEIGHT & COMPACT DESIGN

Bring them anywhere, charge it anywhere

12.8V 100Ah Battery
22.04 lbs



14.6V 20A LiFePO4 Charger
2.87 lbs

Image 9.1: Dimensions of the Redodo 12.8V 100Ah LiFePO4 battery and the 14.6V 20A charger.

10. WARRANTY AND SUPPORT

Redodo provides professional services and responds quickly to solve problems in a timely manner. The product typically comes with a 5-year guarantee and a 10-year lifespan expectation.

- For technical assistance or warranty claims, please contact Redodo customer support.
- Keep your purchase receipt for warranty validation.

