Redodo BLUETOOTH 12V 100AH GROUP 24 LOW TEMP

Redodo Bluetooth 12V 100Ah LiFePO4 Battery and 12V/16V 10A Charger User Manual

Model: BLUETOOTH 12V 100AH GROUP 24 LOW TEMP

1. Product Overview

This manual provides essential instructions for the safe and efficient use of your Redodo Bluetooth 12V 100Ah LiFePO4 Battery and its accompanying 12V/16V 10A Charger. Please read this manual thoroughly before installation and operation.

Image 1.1: Redodo 12V 100Ah LiFePO4 Battery and 12V/16V 10A Charger. The image displays two 12.8V 100Ah LiFePO4 batteries with handles, a 14.6V/18.25V 10A charger, and connection cables, alongside a smartphone screen showing the Bluetooth monitoring app interface.

Key Features:

- **Bluetooth 5.0 Monitoring:** Real-time voltage, current, power, and capacity monitoring via smartphone app.
- **Adjustable Charger:** Supports charging both 12V and 16V lithium batteries with a simple switch.
- **Low-Temperature Protection:** Integrated BMS prevents charging below 0°C (32°F) to protect battery cells.
- **High Cycle Life:** EV-grade LiFePO4 cells offer 4,000-15,000 cycles for extended lifespan.
- **Lightweight Design:** Approximately 21.8 lbs, significantly lighter than traditional AGM batteries.
- **Group 24 Size:** Compact dimensions for versatile installation in various applications.

2. Safety Instructions

Always adhere to these safety guidelines to prevent injury or damage to the battery and charger.

- Do not use this battery as a car starter battery or for golf carts.
- Ensure correct polarity when connecting the battery. Reverse polarity can cause severe damage.
- Use only the provided Redodo 12V/16V 10A LiFePO4 charger or a compatible LiFePO4 charger with 0V activation capability.
- Do not short-circuit the battery terminals.
- Avoid exposing the battery to extreme temperatures, direct sunlight, or water.
- Keep out of reach of children.
- In case of fire, use a Class D fire extinguisher. Water can exacerbate lithium battery fires.

3. Setup

3.1 Unpacking and Inspection

Upon receiving your Redodo battery and charger, carefully unpack all components and inspect for any visible damage. The package should include:

- Redodo Bluetooth 12.8V 100Ah LiFePO4 Battery with Low Temp Cut Off
- Redodo 12V/16V 10A LiFePO4 Battery Charger
- Insulating Caps for Bolts
- M8- 5/8" Terminal Bolts

3.2 Initial Charging

It is essential to fully charge the battery with the dedicated lithium iron phosphate charger upon arrival. The charger supports both 12V and 16V batteries. Ensure the correct voltage setting is selected on the charger before connecting.

1. Connect the charger to an AC power source. The LED indicator on the charger will show its status.
2. Select the appropriate voltage (12V or 16V) on the charger using the switch.
3. Connect the charger's output cables to the battery terminals, ensuring correct polarity (red to positive, black to negative).
4. The charger's LED will indicate charging status. Refer to Section 4.2 for LED indicator details.
5. Charge until the battery is full.

3.3 Bluetooth App Installation

To monitor your battery in real-time, download the Redodo app from your smartphone's app store (Google Play for Android, Apple App Store for iOS). Search for "Redodo" or scan the QR code provided in the product packaging.

Image 3.1: Redodo Bluetooth App Interface. A smartphone screen displays the Redodo app, showing battery voltage, current, power, capacity, and remaining usage time.

Once installed, open the app and follow the on-screen instructions to pair with your Redodo battery via Bluetooth 5.0. The app allows you to monitor various parameters and remotely control discharge/cutoff functions within a 10-meter range.

4. Operating Instructions

4.1 Battery Usage

- **Connection:** Connect your loads (e.g., trolling motor, RV appliances, solar inverter) to the battery terminals using appropriate cables and connectors. Ensure all connections are secure and correctly polarized.
- **Parallel/Series Connection:** The Group 24 size battery supports up to 4P4S configurations for increased capacity and voltage, ideal for solar systems. Consult a qualified technician for complex setups.
- **Low-Temperature Protection:** The integrated BMS will automatically prevent charging when the battery temperature drops below 0°C (32°F) to protect the cells. Discharging is generally permitted at lower temperatures,

but performance may be reduced.

- **Bluetooth Monitoring:** Use the Redodo app to monitor battery status in real-time. This helps in understanding power consumption and remaining capacity.

Image 4.1: Bluetooth Monitoring. A smartphone displays the Redodo app, showing real-time battery data, while a person uses a laptop outdoors, powered by the battery.

4.2 Charger Operation

The Redodo 12V/16V 10A charger is designed for fast and efficient charging of your LiFePO4 battery.

- **Voltage Selection:** Use the "SEL" button on the charger to switch between 12V and 16V charging modes. Ensure the selected voltage matches your battery's nominal voltage.
- **Charging Speed:** The charger provides up to 10A current, allowing for faster charging compared to lower amperage chargers. For example, a 16V 50Ah LiFePO4 battery can reach 50% charge in approximately 2.5 hours.

Image 4.2: Redodo Charger LED Indicators. The image shows the charger with its LED indicator and a legend explaining the different light patterns: Red (Charging), Green (Fully Charged), Green Slow Flash (Standby), Red-Green Slow Flash (Stopped Manually), Red-Green Rapid Flash (In Set or Protection Mode).

LED Indicator Status:

- **Red:** Charging
- **Green:** Fully Charged
- **Green Slow Flash:** Standby
- **Red-Green Slow Flash:** Stopped Manually
- **Red-Green Rapid Flash:** In Set or Protection Mode

5. Maintenance

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

- **Regular Charging:** While LiFePO4 batteries have a low self-discharge rate, it is recommended to charge them

periodically if stored for extended periods.

- **Terminal Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean as necessary and ensure bolts are tightened securely.
- **Storage:** Store the battery in a cool, dry place, ideally at a partial state of charge (around 50%). Avoid extreme temperatures.
- **Cleaning:** Keep the battery clean and free of dust and debris. Use a dry cloth for cleaning.
- **BMS Protection:** The built-in Battery Management System (BMS) provides protection against overcharge, over-discharge, over-current, short-circuit, and low-temperature charging. If the battery enters a protection mode, disconnect the load/charger and allow it to reset.

6. Troubleshooting

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

Problem	Possible Cause	Solution
Battery not charging	• Charger not connected or faulty. • Incorrect voltage selected on charger. • Battery in low-temperature protection mode. • Battery in deep discharge (0V).	• Check charger connections and power supply. • Ensure 12V or 16V is correctly selected on the charger. • Move battery to a warmer environment (above 0°C/32°F). • Use a compatible LiFePO4 charger with 0V activation to revive.
Battery not discharging (no power output)	• Battery in over-discharge protection. • Over-current protection activated. • Loose connections.	• Recharge the battery. • Reduce the load or check for short circuits. The BMS will reset automatically after the fault is cleared. • Check and tighten all terminal connections.
Bluetooth app not connecting	• Battery is off or too far away. • Bluetooth on phone is off. • App permissions not granted.	• Ensure battery is powered on and within 10 meters. • Enable Bluetooth on your smartphone. • Check app permissions in your phone settings.

7. Specifications

Detailed technical specifications for the Redodo Bluetooth 12V 100Ah LiFePO4 Battery and Charger.

7.1 Battery Specifications

Feature	Value
Nominal Voltage	12.8V

Feature	Value
Nominal Capacity	100Ah
Energy	1280Wh
Max Continuous Discharge Current	100A
Peak Discharge Current (1S)	500A
Max Charge Current	50A
Cycle Life	4,000-15,000 cycles
Dimensions (L x W x H)	10.24" x 6.61" x 8.27" (260mm x 168mm x 210mm)
Weight	21.8 lbs (9.9 kg)
Operating Temperature (Discharge)	-4°F to 140°F (-20°C to 60°C)
Operating Temperature (Charge)	32°F to 113°F (0°C to 45°C)
Protection	BMS with Overcharge, Over-discharge, Over-current, Short-circuit, Low-Temp Cutoff
Bluetooth	Bluetooth 5.0

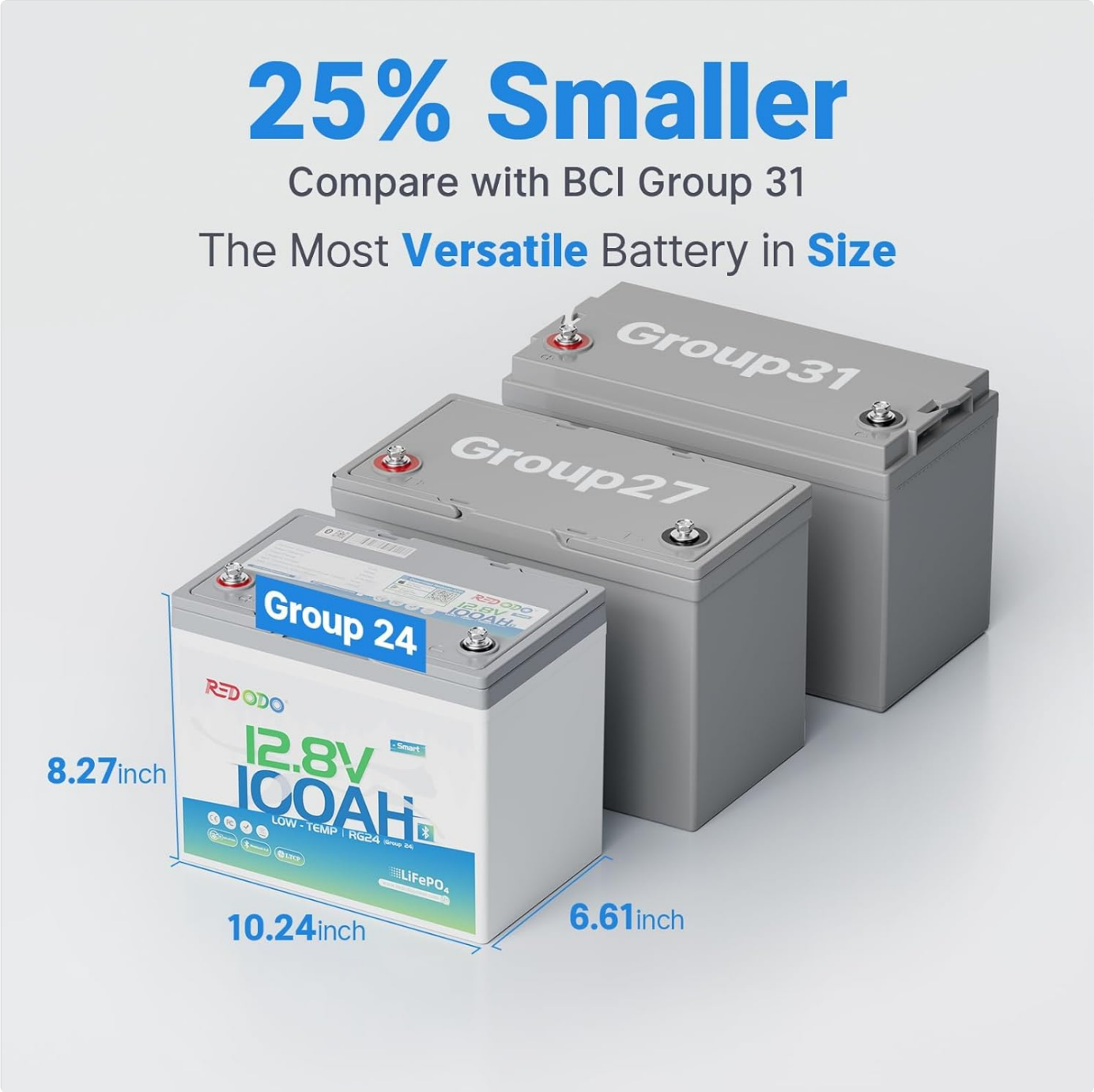


Image 7.1: Redodo 12V 100Ah LiFePO4 Battery Size Comparison. The image shows the compact Group 24 size Redodo battery next to larger Group 27 and Group 31 batteries, highlighting its dimensions (10.24" length, 6.61" width, 8.27" height).

7.2 Charger Specifications

Feature	Value
Input Voltage	100-240V AC, 50/60Hz
Output Voltage (Selectable)	14.6V (for 12V LiFePO4) / 18.25V (for 16V LiFePO4)
Max Output Current	10A
Dimensions (L x W x H)	Approx. 8.19" x 3.58" x 2.07" (208mm x 91mm x 52.5mm)

Image 7.2: Redodo 12V/16V 10A LiFePO4 Charger Dimensions. The image shows the charger with its dimensions labeled: 8.19" (208mm) length, 3.58" (91mm) width, and 2.07" (52.5mm) height.

8. Warranty and Support

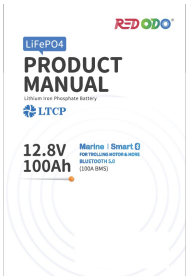
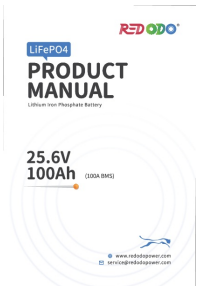
8.1 Warranty Information

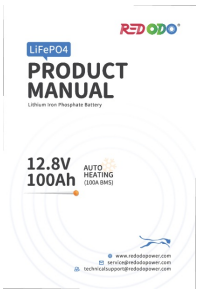
Redodo LiFePO4 batteries are designed for durability and come with a 5-year guarantee, reflecting confidence in their quality and performance. The EV-grade LFP cells are rated for 4,000-15,000 cycles, ensuring a lifespan of 10+ years under typical usage conditions.

8.2 Customer Support

For technical assistance, warranty claims, or any questions regarding your Redodo product, please contact our customer support team. You can find contact information on the official Redodo website or through your purchase platform. We aim to provide a 24-hour response to inquiries.
Visit the Redodo Store on Amazon for more information and related products.

Related Documents - BLUETOOTH 12V 100AH GROUP 24 LOW TEMP

	REDODO 12.8V 50Ah LiFePO4 - Bluetooth, REDODO 12.8V 50Ah LiFePO4 Bluetooth 5.0
	Redodo 12.8V 100Ah LiFePO4 Battery Product Manual Comprehensive product manual for the Redodo 12.8V 100Ah LiFePO4 Smart Bluetooth Marine battery, detailing specifications, safety, charging, and connection methods for trolling motors and other applications.
	Manuel du Produit Batterie REDODO 12.8V 280Ah LiFePO4 Basse Température Manuel détaillé du produit pour la batterie REDODO 12.8V 280Ah LiFePO4 Basse Température, couvrant les spécifications, l'utilisation, la connexion en série/parallèle et le dépannage.
	Redodo 25.6V 100Ah LiFePO4 Battery Product Manual Comprehensive product manual for the Redodo 25.6V 100Ah LiFePO4 battery, detailing specifications, operating instructions, troubleshooting, and series/parallel connection guidelines.

	Redodo 12.8V 100Ah LiFePO4 Battery Product Manual with Auto Heating Comprehensive product manual for the Redodo 12.8V 100Ah Lithium Iron Phosphate (LiFePO4) battery, featuring auto-heating functionality. Includes specifications, operating parameters, connection guidelines, and troubleshooting steps.
	Redodo 12V 100Ah Group 24 Lithium Iron Phosphate Battery Datasheet Detailed specifications and features for the Redodo 12V 100Ah Group 24 Lithium Iron Phosphate (LiFePO4) battery, offering high performance, long cycle life, and advanced safety features for various applications.