Redodo BLUETOOTH 12V100AH LOW TEMP

Redodo 12V 100Ah LiFePO4 Bluetooth Battery User Manual

Model: BLUETOOTH 12V100AH LOW TEMP

1. Introduction

This manual provides essential information for the safe and efficient operation of your Redodo 12V 100Ah LiFePO4 Bluetooth Battery. Designed for deep cycle applications, this battery is ideal for marine, RV, solar, and off-grid power systems. Please read this manual thoroughly before use and retain it for future reference.

Image: The Redodo 12V 100Ah LiFePO4 Bluetooth Battery, showcasing its compact design and integrated handles.

2. Safety Information

Important Safety Precautions:

- Always wear appropriate personal protective equipment (PPE) when handling batteries.
- Do not short-circuit the battery terminals.
- Ensure proper ventilation during charging and discharging.
- Do not expose the battery to fire or extreme heat.
- Avoid dropping or physically damaging the battery.
- Use only LiFePO4 compatible chargers.
- Do not connect batteries with different chemistries or voltages in series/parallel.
- Keep the battery away from children and pets.
- In case of fire, use a Class D fire extinguisher. Water can exacerbate lithium fires.

Low-Temperature Protection: This battery features a built-in low-temperature protection system. It automatically stops charging below 32°F (0°C) and resumes above 41°F (5°C). Discharge halts at -4°F (-20°C). This ensures safe operation and prevents damage in freezing climates.

3. What's in the Box

- Redodo 12.8V 100Ah LiFePO4 Battery with Low Temp Cut Off
- User Manual
- Terminal Bolts (M8)

4. Key Features

- **Built-in Low-Temperature Protection:** Automatically stops charging below 32°F (0°C) and resumes above 41°F (5°C). Discharge halts at -4°F (-20°C).
- **Compact Group 24 Design:** Standard BCI Group 24 case for easy drop-in replacement in RVs, boats, and campers.
- **Bluetooth APP Monitoring:** Real-time monitoring of voltage, current, capacity, and discharge control via Redodo App and Bluetooth 5.0 (up to 10 meters).
- **Lightweight Design:** Weighs only 22.16 lbs, approximately one-third the weight of comparable AGM batteries.
- **Enhanced BMS Protection:** Rugged, upgraded Battery Management System (BMS) offers waterproof, salt-spray, and corrosion protection, along with comprehensive safety features (precharge, low/high temp, overcharge/over-discharge, short circuit, overcurrent, auto-recovery from overloads).
- **Expandable for Versatile Power:** Connect up to four 12V 100Ah LiFePO4 batteries in series (up to 48V) or parallel (up to 400Ah).
- **Long 10-Year Lifespan:** Built with Grade A cells, delivering 4000+ cycles at 100% Depth of Discharge (DoD).

Image: A Redodo battery with a smartphone displaying the real-time battery status monitoring app, showing remaining usage time, SOC, voltage, current, and remote control options.

5. Setup Instructions

1. **Unpacking:** Carefully remove the battery and all accessories from the packaging. Inspect for any visible damage.
2. **Initial Charge:** It is recommended to fully charge the battery before its first use. Use a compatible LiFePO4 charger.
3. **Terminal Connection:**
    - Ensure all connections are clean and free of corrosion.
    - Connect the positive (+) terminal of the battery to the positive (+) terminal of your system using appropriate gauge cables.
    - Connect the negative (-) terminal of the battery to the negative (-) terminal of your system.
    - Tighten all terminal connections securely using the provided M8 bolts and washers.
4. **App Installation (for Bluetooth Monitoring):**
    - Download the "Redodo App" from your smartphone's app store (Google Play or Apple App Store).
    - Enable Bluetooth on your smartphone.
    - Open the Redodo App and follow the on-screen instructions to pair with your battery. You may need to scan a QR code on the battery or manually select it from a list of nearby devices.

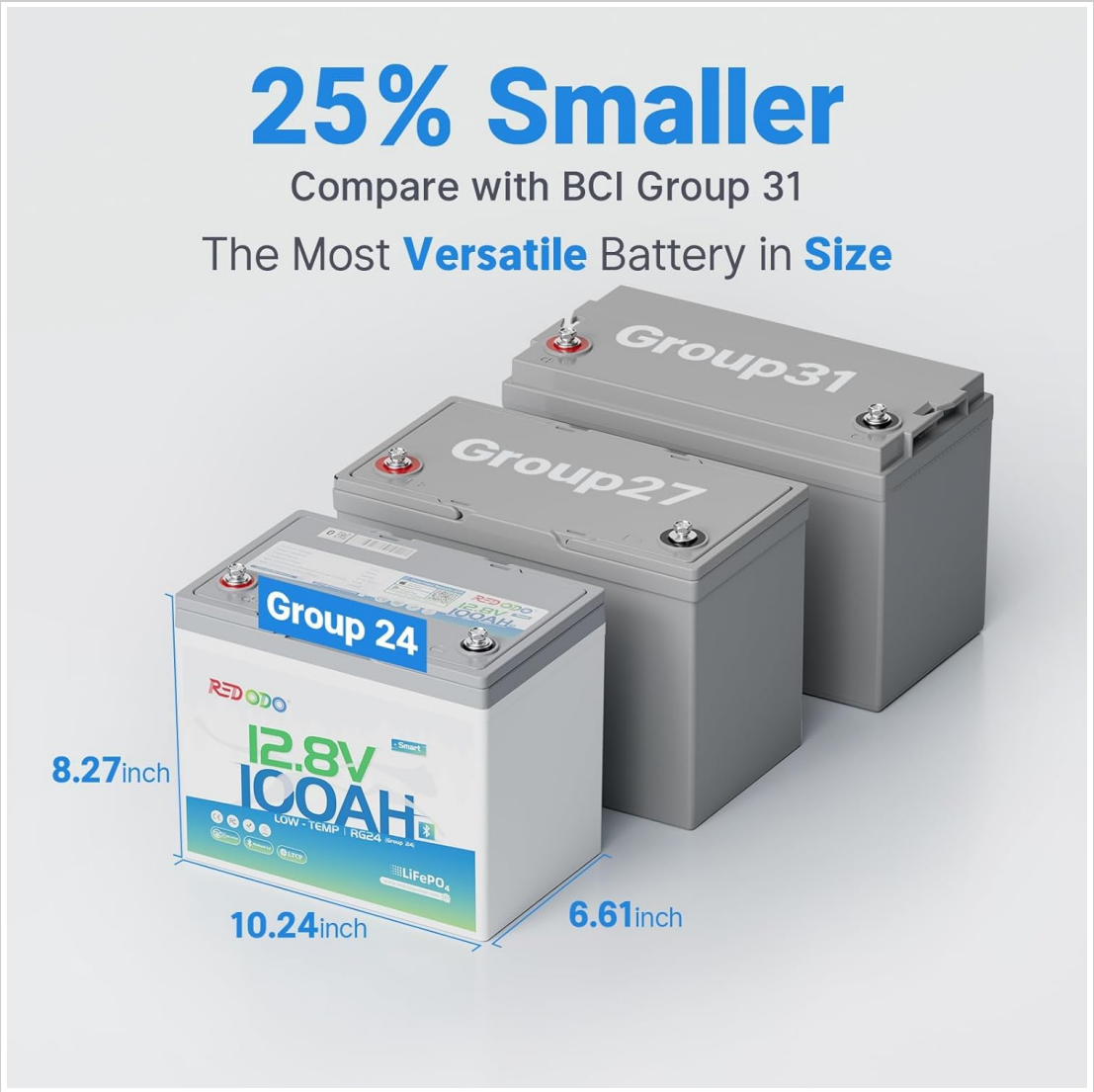

Image: A person lifting the lightweight Redodo battery using its integrated handles, highlighting its portability.

6. Operating Instructions

Your Redodo LiFePO4 battery is designed for deep cycle applications. It can power various devices and systems in RVs, boats, solar setups, and off-grid power systems.

- **Powering Devices:** Connect your 12V devices or inverter to the battery terminals. Ensure the total current draw does not exceed the battery's maximum continuous discharge current (100A).
- **Low-Temperature Operation:** The built-in BMS will automatically manage charging and discharging based on temperature to prevent damage. No user intervention is required for this feature.
- **Remote Control (via App):** Use the Redodo App to monitor battery status and, if supported, control discharge or power-off functions remotely.

Image: A Redodo battery in an outdoor setting, with a smartphone displaying the app's capacity monitoring feature, ensuring users always know how much power is left.

7. Charging the Battery

Use a dedicated LiFePO4 battery charger with a recommended charging voltage between 14.2V to 14.6V. The recommended charging current is 0.2C (20A for a 100Ah battery) for standard charging, or up to 1C (100A) for fast charging. The battery will reach its full capacity of 100% after approximately 5 hours of charging at 0.2C.

- **AC Charger:** Connect a compatible LiFePO4 AC charger to the battery terminals.
- **Solar Charging:** Connect the battery to a solar charge controller (LiFePO4 compatible) and then to solar panels.
- **Alternator/Generator Charging:** If your alternator or generator supports DC output, it may be used to charge the battery. Consult your vehicle's manual or a qualified technician for proper setup.

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Video: A demonstration of charging a Redodo LiFePO4 battery using a compatible charger, highlighting the smart charging cycle and app monitoring.

8. Bluetooth App Monitoring

The Redodo App provides comprehensive real-time data and control over your battery. Ensure your phone is within 10 meters (33 feet) of the battery for optimal Bluetooth connection.

- **Real-time Status:** View voltage, current, power, state of charge (SOC), and remaining capacity.
- **Cycle Count:** Track the number of charge/discharge cycles.
- **Temperature:** Monitor the internal temperature of the battery.
- **Remote Control:** Manage discharge and power-off functions directly from the app.
- **Alarms & Protection:** Receive alerts for various protection states (e.g., over-voltage, under-voltage, over-current).

Image: Screenshot of the Redodo App interface, illustrating real-time battery status, including SOC, voltage, current, and capacity.

9. Series and Parallel Connection

The Redodo 12V 100Ah LiFePO4 battery supports connections of up to four batteries in series or parallel to achieve higher voltage or capacity configurations.

- **Series Connection:** Connect up to four batteries in series to increase the voltage (e.g., two 12V batteries in series create a 24V system). Ensure all batteries are of the same model and capacity.
- **Parallel Connection:** Connect up to four batteries in parallel to increase the total capacity (e.g., two 12V 100Ah batteries in parallel create a 12V 200Ah system). Ensure all batteries are of the same model and capacity.
- **Balancing:** Before connecting multiple batteries, ensure they are fully charged and balanced to minimize voltage differences.

Image: An illustration showing multiple Redodo batteries connected in a solar power setup, demonstrating their expandability for versatile power solutions.

10. Maintenance

- **Regular Inspection:** Periodically check battery terminals for cleanliness and tightness.
- **Cleaning:** Keep the battery clean and dry. Use a dry cloth to wipe the battery case.
- **Storage:** For long-term storage, charge the battery to 50-70% SOC and store it in a cool, dry place. Recharge every 3-6 months to maintain battery health.
- **Avoid Deep Discharge:** While the battery can handle 100% DoD, avoiding frequent deep discharges can extend its overall lifespan.

11. Troubleshooting

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

- **Battery Not Charging:**
  - Check charger compatibility: Ensure you are using a LiFePO4 compatible charger.
  - Verify connections: Make sure all cables are securely connected and polarity is correct.
  - Check temperature: If below 32°F (0°C), the battery will not charge due to low-temperature protection.
  - BMS tripped: If the battery has been deeply discharged (0V), use a low-power charger (2-5A) for a few minutes to activate the BMS.
- **Battery Not Discharging:**
  - Check load: Ensure the load is within the battery's specifications (max continuous discharge 100A).
  - Verify connections: Ensure all cables are securely connected.
  - Check temperature: If below -4°F (-20°C), the battery will not discharge due to low-temperature protection.
  - BMS tripped: The BMS may have tripped due to over-current, over-voltage, or under-voltage. Disconnect the load, wait 30 seconds for auto-recovery, and then reconnect.
- **Bluetooth App Connectivity Issues:**
  - Ensure Bluetooth is enabled on your phone.
  - Make sure your phone is within 10 meters (33 feet) of the battery.
  - Restart the app or your phone.

12. Technical Specifications

Specification	Value
Brand	Redodo
Model Number	BLUETOOTH 12V100AH LOW TEMP
Nominal Voltage	12.8V
Battery Capacity	100 Amp Hours
Energy	1280Wh
Max Continuous Discharge Current	100 Amps
Recommended Charge Current	20 Amps (0.2C)
Max Charge Voltage	14.6V
Low-Temperature Charge Cut-off	32°F (0°C)
Low-Temperature Discharge Cut-off	-4°F (-20°C)
Cycle Life	4000+ cycles @ 100% DoD
Terminal Type	M8
Item Weight	22.2 pounds

Product Dimensions	8.3 x 10.24 x 6.61 inches

13. Warranty & Customer Support

Redodo offers a **5-year guarantee** on this LiFePO4 battery. For any questions, technical assistance, or warranty claims, please contact our dedicated customer support team.

- **Customer Support:** Our team provides round-the-clock one-on-one support to ensure your energy system runs smoothly.
- **Contact Information:** Refer to the product packaging or Redodo's official website for the most up-to-date contact details.

Related Documents - BLUETOOTH 12V100AH 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.