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**Redodo R12V100-100-RG24-4-A70**

# Redodo 12.8V 100Ah Group 24 LiFePO4 Battery Instruction Manual

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation of your Redodo 12.8V 100Ah Group 24 LiFePO4 Deep Cycle Battery. Please read it thoroughly before installation and use. Proper handling and maintenance will ensure optimal performance and longevity of your battery.



Figure 1: Redodo 12.8V 100Ah Group 24 LiFePO4 Battery.

## 2. SAFETY INFORMATION

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- Always use appropriate personal protective equipment (PPE) when handling batteries.
- Ensure all connections are secure to prevent short circuits.
- Do not short circuit the battery terminals.
- Do not disassemble, crush, or damage the battery.
- Do not expose the battery to fire or extreme heat.
- Use only chargers specifically designed for LiFePO4 batteries.
- Avoid overcharge or overdischarge beyond published voltage and current limits.
- This battery is not designed for use as a starting battery for engines or golf carts.

## 3. WHAT'S IN THE BOX

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Upon receiving your Redodo 12.8V 100Ah LiFePO4 Battery, please verify the contents:

- 1x Redodo 12.8V 100Ah LiFePO4 Battery Group 24

- 4x M8-size screws for terminal connections
- 2x Insulating caps for terminals
- Product Manual and Notice Card

The battery is securely packaged in a thick, strong cardboard box with foam inserts for protection. It also features a handle for easy carrying.

Video 1: Unboxing the Redodo 12V 100Ah LiFePO4 Battery and 20A Charger. This video demonstrates the packaging, included accessories, and the physical appearance of the battery and charger.

## 4. PRODUCT FEATURES

### 4.1. Standard BCI Group 24 Size

The Redodo 12.8V 100Ah Group 24 LiFePO4 Battery measures L10.24" x W6.61" x H8.3". This compact size makes it a perfect fit for Group 24, Group 27, or Group 31 battery boxes, suitable for various applications including RVs, travel trailers, and motorhomes.

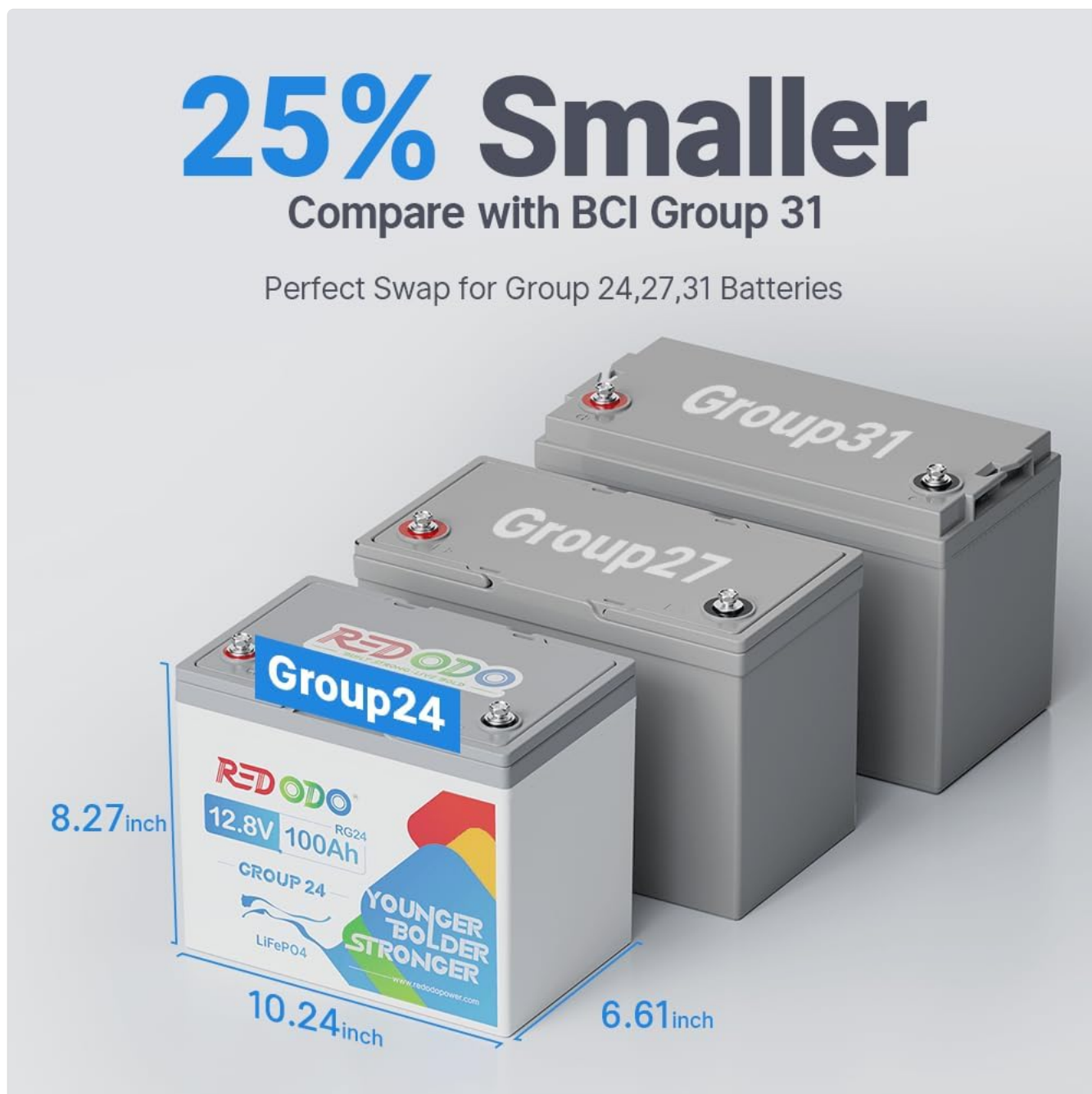


Figure 2: Size comparison showing the compact Group 24 battery.

## 4.2. Lightweight Design

Weighing approximately 21.56 lbs, this lithium battery is significantly lighter than traditional lead-acid batteries. This high energy density (59.37Wh/lb) offers a substantial weight reduction, making installation and transport easier.



Figure 3: The Redodo LiFePO4 battery is 66% lighter than comparable lead-acid batteries.

## 4.3. Extended Cycle Life & BMS

The Redodo 12.8V 100Ah LiFePO4 battery offers an impressive cycle life of 4000 to 15000 cycles, providing up to 8 times the lifespan of a typical SLA battery. It features a built-in 100A Battery Management System (BMS) with Grade A cells, offering five key protections:

- Over-Charge Protection
- Over-Discharge Protection
- Over-Current Protection
- Short-Circuit Protection

- High-Temperature Protection

# Safest BMS Protection

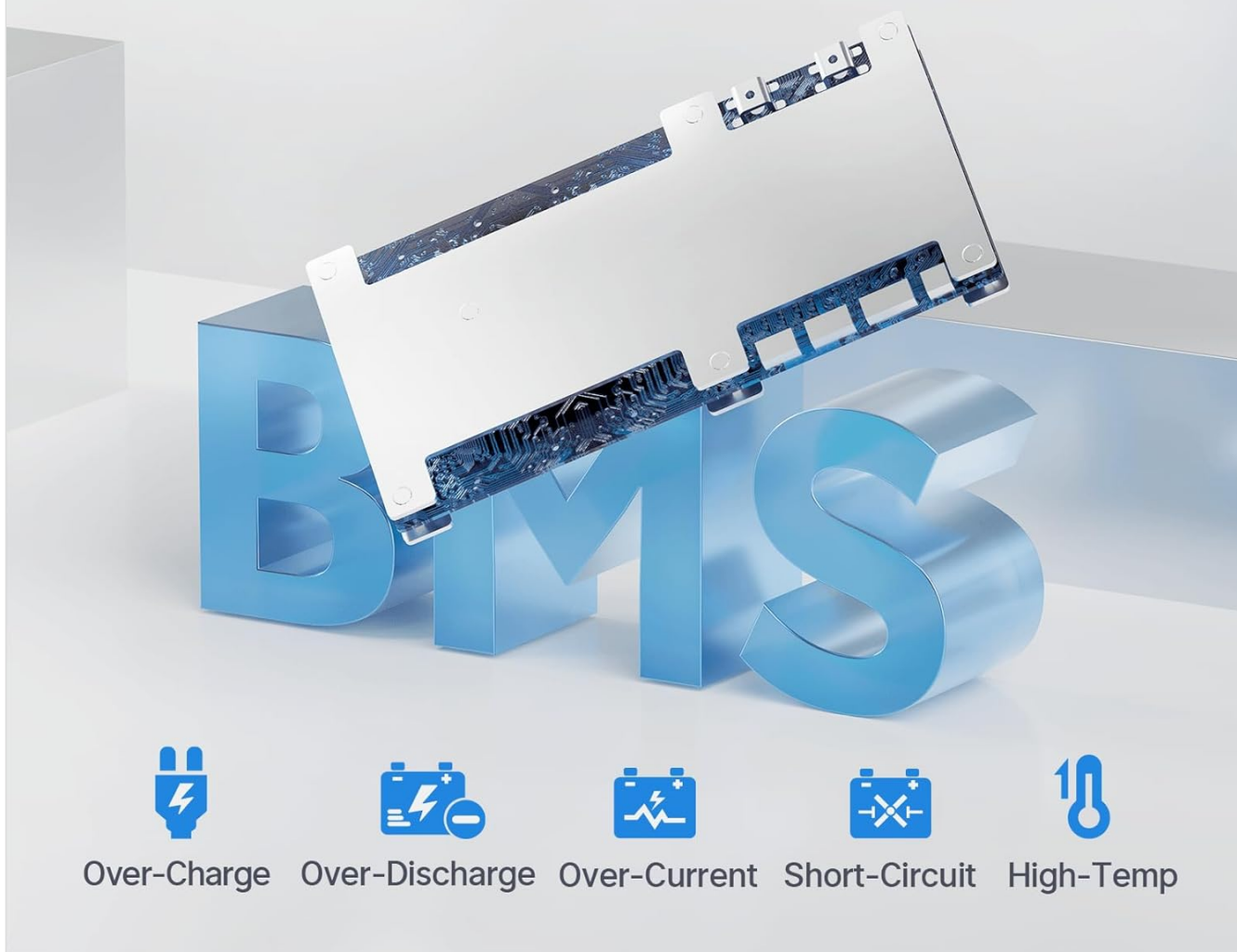


Figure 4: The 100A BMS provides comprehensive protection for the battery.

Video 2: Internal structure of a LiFePO4 battery, demonstrating the BMS, cell connections, and low-temperature cutoff function.

## 4.4. Expandability

The battery supports both series and parallel connections, allowing for flexible system expansion. You can connect up to 4 batteries in series for a 51.2V 100Ah system, or up to 4 batteries in parallel for a 12.8V 400Ah system. For larger energy needs, a 4P4S configuration (16 batteries) can achieve a 51.2V 400Ah system with 20.48KWh of energy.

## 5. APPLICATIONS

This versatile battery is ideal for various deep cycle applications:

- **RVs, Vans, Campers:** Provides reliable power for onboard electronics and appliances.
- **Solar Power Storage:** Efficiently stores energy from solar panels for off-grid living or backup power.
- **Trolling Motors:** Suitable for trolling motors with 30-70lbs thrust.



# 2.56kWh

1.7 kWh per day for 1.5 days



Figure 5: The battery provides power for RV electronics, supporting extended off-grid use.

Video 3: Overview of the Redodo 12V 100Ah Group 24 lithium battery, showcasing its use in an RV.

## 6. SETUP & INSTALLATION

Before connecting the battery, ensure all terminals are clean and free of corrosion. Use the provided M8 screws to secure cable lugs to the battery terminals. Tighten connections firmly to prevent resistance and heat buildup.

For optimal performance and safety, it is recommended to fully charge each battery individually before connecting them in series or parallel. This ensures all batteries are at a balanced state of charge.

## 7. CHARGING INSTRUCTIONS

The Redodo 12.8V 100Ah LiFePO4 battery should be charged using a 14.6V 20A (0.2C) LiFePO4 battery charger. This typically takes around 5 hours for a full charge. The battery can be fully charged in as little as 1 hour with a 100A charging current.

## 7.1. Recommended Charging Methods:

- Dedicated LiFePO4 Charger (14.6V 20A)
- Solar Panel with MPPT Charge Controller
- Generator with AC-DC Converter
- Alternator with DC-DC Charger

# 5 Hours Quick Charge

@20A (0.2C) charging



LiFePO4  
Charger



Solar Panel  
+ MPPT



Generator  
+AC-DC



Alternator  
+DC-DC

Can be fully charged in **1 hour** at the fastest (@100A Charging)



Figure 6: Multiple options are available for charging your Redodo LiFePO4 battery.

## 8. SERIES & PARALLEL CONNECTION

To connect batteries in series or parallel, ensure they are of the same brand, capacity (Ah), and BMS (A). It is crucial that all batteries are at the same state of charge before connecting them. Use appropriate gauge copper cables for connections.

### 8.1. Series Connection:

Connect the positive terminal of one battery to the negative terminal of the next. This increases the total voltage of

the battery system.

### 8.2. Parallel Connection:

Connect positive terminals to positive terminals and negative terminals to negative terminals. This increases the total amperage (Ah) of the battery system.

## 9. MAINTENANCE

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The Redodo LiFePO4 battery is designed for minimal maintenance. However, following these guidelines will help maximize its lifespan:

- **Regular Inspection:** Periodically check terminal connections for tightness and signs of corrosion.
- **Cleaning:** Keep the battery clean and dry. Use a damp cloth to wipe the exterior.
- **Long-Term Storage:** If storing the battery for an extended period (more than 3 months), charge it to 50% capacity and store in a cool, dry place (recommended temperature: -10°C to 35°C / 14°F to 95°F). Recharge every 3 months to maintain optimal health.

## 10. TROUBLESHOOTING

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

- **No Power Output:** Check all cable connections for tightness. Verify the battery voltage is above the minimum discharge voltage. If the battery is in protection mode, disconnect all loads and chargers for 30 minutes to allow the BMS to reset.
- **Charging Issues:** Ensure your charger is compatible with LiFePO4 batteries and provides the correct voltage (14.6V) and current. Check for any fault indicators on the charger or MPPT controller.
- **Low Temperature Cut-off:** The BMS will automatically stop charging if the battery temperature drops below 0°C (32°F) to prevent damage. Charging will resume once the temperature rises.

## 11. SPECIFICATIONS

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Feature	Specification
Brand	Redodo
Model	R12V100-100-RG24-4-A70
Nominal Voltage	12.8V
Battery Capacity	100Ah
Energy	1280Wh
Product Dimensions (L x W x H)	10.24" x 6.61" x 8.27"
Item Weight	21.6 pounds
Terminal Type	M8
Internal Resistance	40 Milliohms
Max Continuous Charge Current	100A



Max Continuous Discharge Current	100A
Cycle Life	4000-15000 cycles
Operating Temperature Range	Discharge: -20°C to 60°C (-4°F to 140°F) Charge: 0°C to 45°C (32°F to 113°F)





## 12. WARRANTY & SUPPORT


Redodo offers a 5-year guarantee on this battery, reflecting confidence in its quality and durability. The expected lifespan of the battery is 10 years.

For any questions or support needs, please contact Redodo customer service. They aim to provide 24-hour response times and have local warehouses for efficient service.

Contact information can typically be found on the product packaging or the official Redodo website.

### Related Documents - R12V100-100-RG24-4-A70

	<p><a href="#">Redodo 12V 100Ah Group 24 Lithium Iron Phosphate Battery Datasheet</a></p> <p>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.</p>
	<p><a href="#">REDODO 12.8V 100Ah MINI LiFePO4</a></p> <p>REDODO 12.8V 100Ah MINI LiFePO4</p>
	<p><a href="#">Redodo LiFePO4 25.6V 200Ah Battery Product Manual</a></p> <p>Comprehensive product manual for the Redodo LiFePO4 25.6V 200Ah battery, covering specifications, product overview, connection guidelines, and troubleshooting. Learn about operating voltage, capacity, dimensions, and BMS features.</p>
	<p><a href="#">Redodo 12.8V 410Ah LiFePO4 Battery - 5120Wh Capacity, 3200W Output</a></p> <p>Detailed information on the Redodo 12.8V 410Ah Lithium Iron Phosphate (LiFePO4) battery, featuring a 5120Wh large capacity, 3200W high output, and enhanced safety features. Includes instruction manual download link.</p>

	<p><a href="#">REDODO 25.6V 100Ah LiFePO4</a></p> <p>REDODO 25.6V 100Ah LiFePO4</p>
	<p><a href="#">Redodo 12.8V 100Ah LiFePO4 Battery Product Manual with Auto Heating</a></p> <p>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.</p>