Redodo 12V 100Ah Group 24

Redodo 12V 100Ah LiFePO4 Battery and 14.6V 40A Charger User Manual

Model: 12V 100Ah Group 24

1. Introduction

This manual provides essential information for the safe and efficient use of your Redodo 12V 100Ah LiFePO4 Battery and accompanying 14.6V 40A Charger. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of your product.

2. Product Overview

2.1 What's in the Box

- 12.8V 100Ah LiFePO4 Battery Group 24
- M8- 5/8"(16mm) Terminal Bolts
- Insulating Caps for the Bolts
- 14.6V 40A LiFePO4 Battery Charger

2.2 Key Features

- **Compact Design:** BCI Group 24 size, 25% smaller volume than previous models, offering 1280Wh energy capacity.
- **Extended Lifespan:** Up to 15,000 cycles (@60% DOD) and a 10-year lifespan, significantly outperforming lead-acid batteries.
- **Fast Charging:** The included 14.6V 40A charger provides efficient charging, capable of fully charging a 12V 200Ah LiFePO4 battery in approximately 5 hours.
- **Advanced Safety:** Equipped with a 100A Battery Management System (BMS) and Grade A cells, offering over-temperature, output short-circuit, reverse polarity, output over-voltage, overcharging, over-discharging, and overcurrent protection. Features a pre-charge mode to reactivate 0V batteries.
- **Lightweight:** Weighs only 21.6 lbs, approximately 1/3 the weight of a 12V 100Ah AGM battery.
- **Versatile Applications:** Ideal for RVs, camping, solar panel systems, off-grid setups, and kayak trolling

motors.

Figure 1: Redodo 12V 100Ah LiFePO4 Battery and 14.6V 40A Charger.

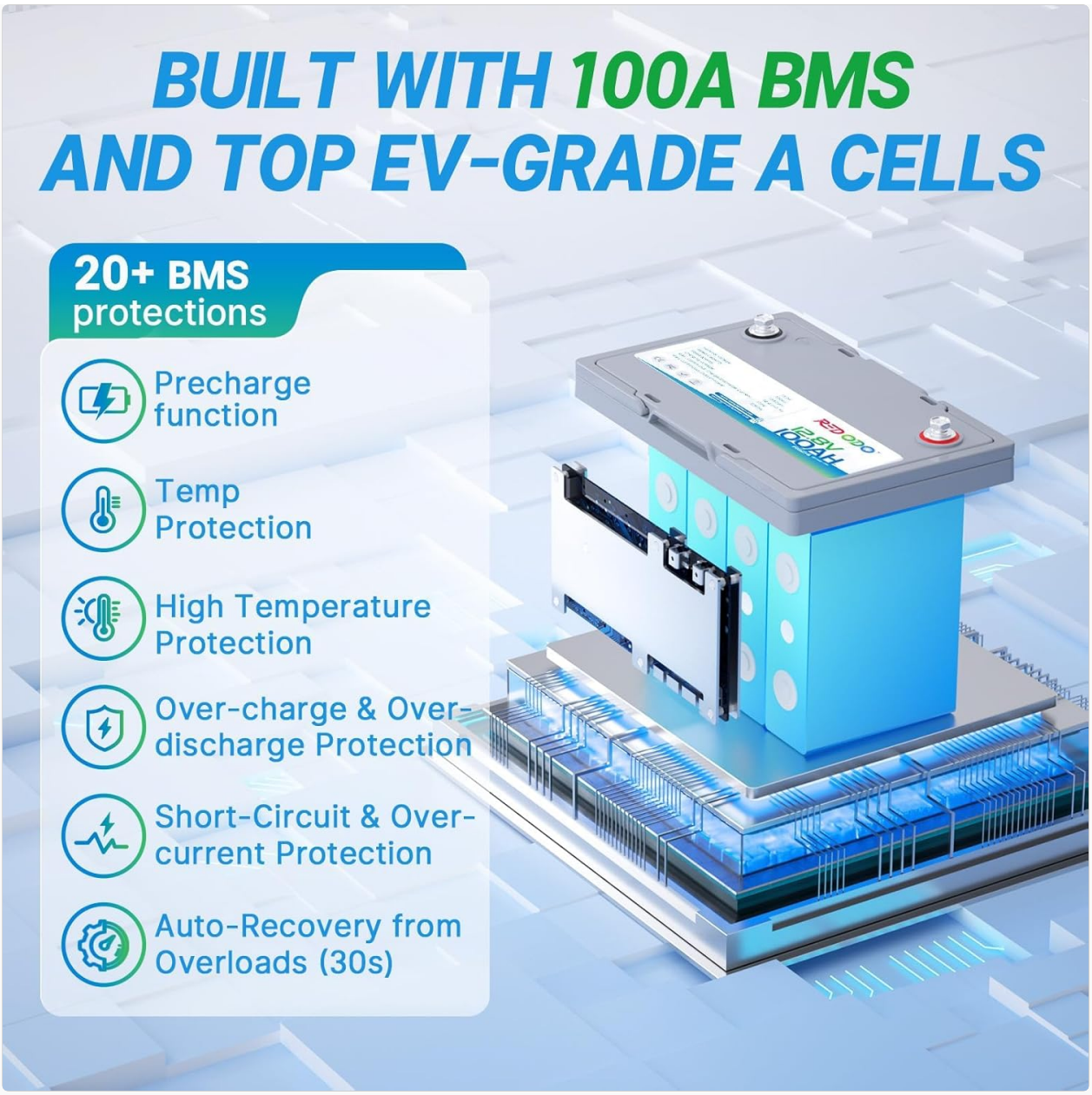


Figure 2: Internal structure highlighting the 100A BMS and EV-grade A cells, providing over 20 types of protection including precharge function, temperature protection, over-charge, over-discharge, short-circuit, and over-current protection.

Figure 3: Size comparison showing the Redodo Group 24 LiFePO4 battery is 25% more compact while maintaining 1280Wh of usable energy. Dimensions are 10.24 in (L), 6.61 in (W), 8.27 in (H).

3. Safety Information

Always adhere to the following safety guidelines when handling and operating the battery and charger:

- Do not short-circuit the battery terminals.
- Do not expose the battery to fire, heat, or direct sunlight.
- Do not immerse the battery in water or other liquids.
- Use only the specified 14.6V 40A LiFePO4 charger or a compatible LiFePO4 charger.
- Ensure proper ventilation during charging and discharging.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection when handling batteries.
- Keep out of reach of children.
- Do not attempt to open or disassemble the battery or charger.
- Dispose of batteries according to local regulations.

4. Setup and Installation

4.1 Battery Placement

The Redodo 12V 100Ah LiFePO4 battery is designed to fit standard Group 24 battery boxes. Ensure the battery is placed in a stable, dry, and well-ventilated area, away from direct heat sources or flammable materials.

4.2 Connecting the Battery

1. Ensure all loads are disconnected before connecting the battery.
2. Connect the positive (+) terminal of the battery to the positive (+) terminal of your system.
3. Connect the negative (-) terminal of the battery to the negative (-) terminal of your system.
4. Use the provided M8 terminal bolts and insulating caps to secure connections. Ensure all connections are tight to prevent arcing and overheating.

4.3 Charger Connection

The 14.6V 40A charger is designed for ease of use. Connect the charger's output cables to the battery terminals (red to positive, black to negative) before plugging the charger into an AC power source. The charger features fixing hole positions for secure mounting if desired.

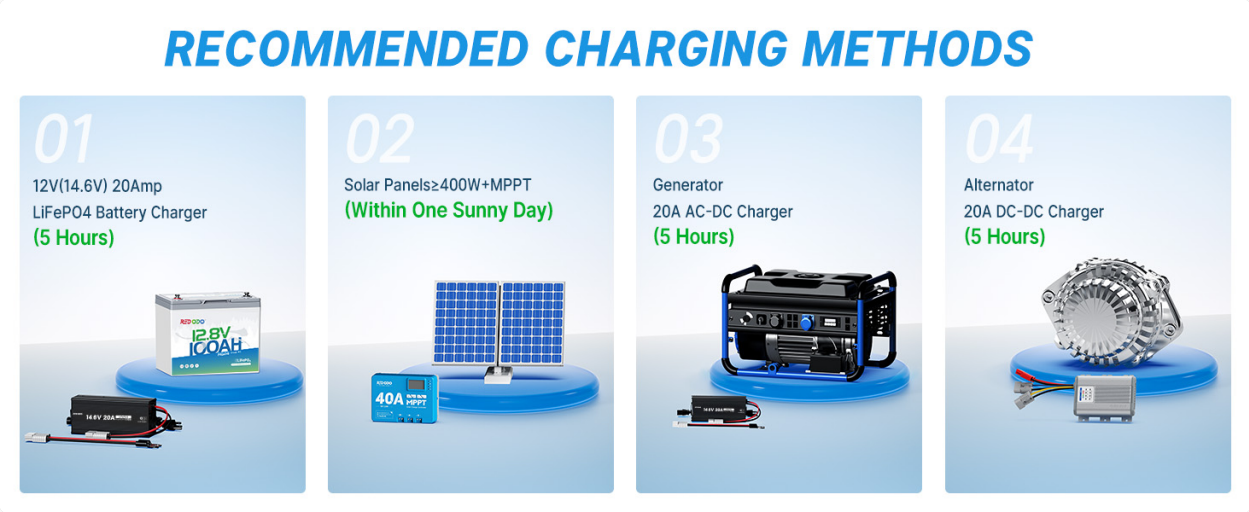


Figure 4: The Redodo LiFePO4 battery is suitable for various applications including motor homes, trailer RVs, vans, and trolling motors.

5. Operating Instructions

5.1 Charging the Battery

Use the provided Redodo 14.6V 40A LiFePO4 charger. Connect the charger to the battery, then plug the charger into a standard AC outlet. The charger's pre-charge mode can reactivate a battery that has been discharged to 0V. Charging times vary based on battery capacity:

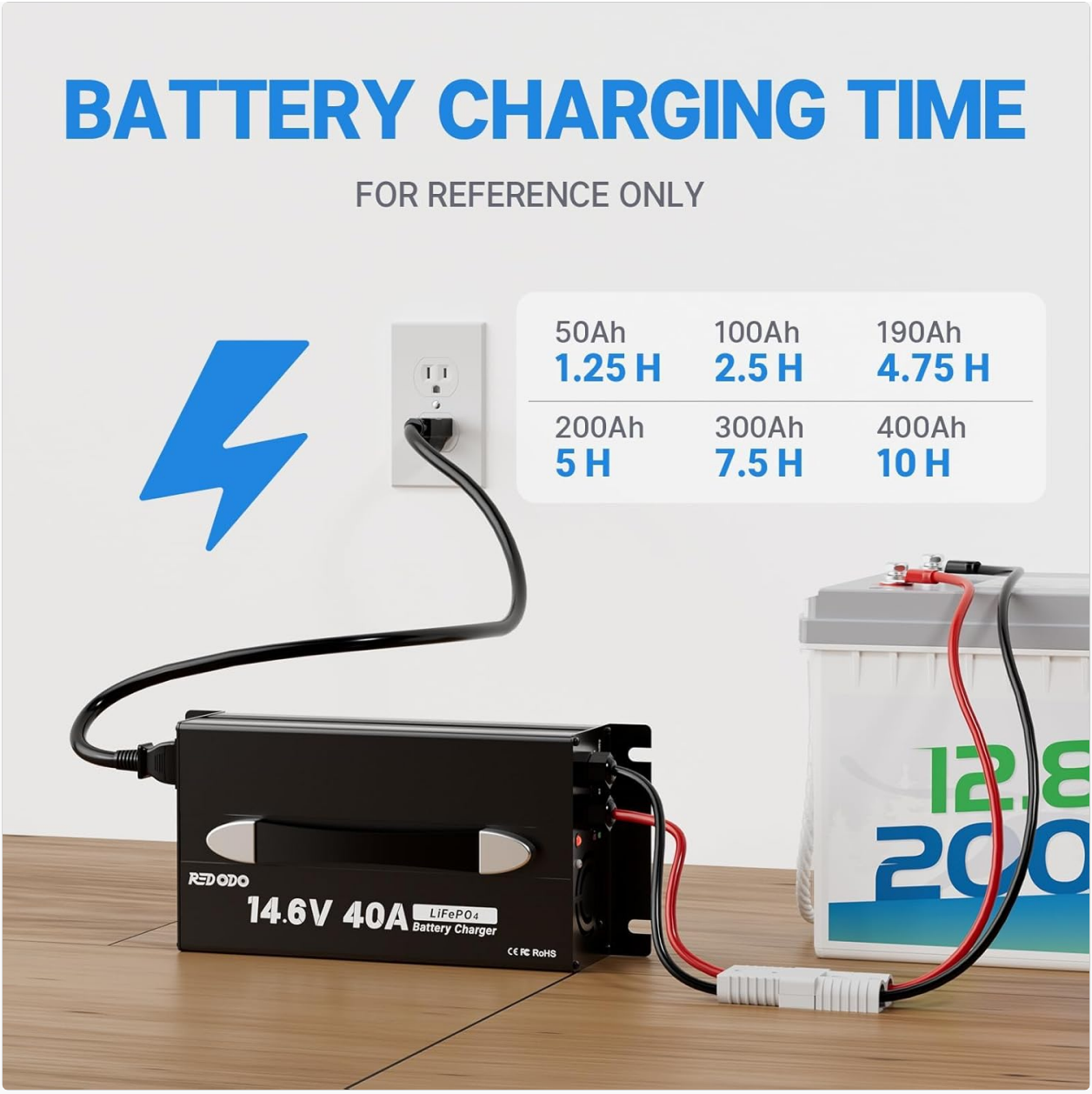


Figure 5: Reference charging times for various battery capacities using the 14.6V 40A charger. For example, a 100Ah battery takes approximately 2.5 hours, and a 200Ah battery takes about 5 hours.

Other recommended charging methods include:

- 12V (14.6V) 20Amp LiFePO4 Battery Charger (approx. 5 hours for 100Ah)
- Solar Panels (400W+ MPPT, within one sunny day)
- Generator (20A AC-DC Charger, approx. 5 hours for 100Ah)
- Alternator (20A DC-DC Charger, approx. 5 hours for 100Ah)

Figure 6: Visual representation of recommended charging methods including dedicated LiFePO4 chargers, solar panels with MPPT, generators, and alternators.

5.2 Discharging

The battery is designed for deep cycle applications and can be discharged to 100% Depth of Discharge (DOD). The 100A BMS protects against over-discharging. Ensure your load does not exceed the battery's continuous discharge current rating.

5.3 Parallel and Series Connections

For increased capacity or voltage, multiple Redodo LiFePO4 batteries can be connected in parallel or series. Refer to the specific guidelines for parallel/series connections to ensure proper balancing and safe operation. It is recommended to use batteries of the same model and state of charge for optimal performance.

6. Maintenance

- **Regular Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean as necessary.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50% State of Charge (SOC) and stored in a cool, dry place. Avoid extreme temperatures.
- **Cleaning:** Keep the battery and charger clean and free from dust and debris. Use a dry cloth for cleaning.

7. Troubleshooting

Problem	Possible Cause	Solution
Battery not charging	Loose connections, faulty charger, battery deeply discharged (0V)	Check all connections. Ensure charger is functioning. Use the charger's pre-charge mode to attempt reactivation of a 0V battery.
Low power output	Battery not fully charged, excessive load, internal BMS protection activated	Fully charge the battery. Reduce the load. Disconnect and reconnect the battery to reset BMS if necessary.
Charger indicator light not on	No AC power, charger faulty, incorrect connection to battery	Check AC power source. Verify charger connections to battery. Contact support if charger is faulty.

8. Specifications

Feature	Specification
Brand	Redodo
Model	12V 100Ah Group 24

Feature	Specification
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Voltage	12.8 Volts
Capacity	100Ah
Energy	1280Wh
Product Dimensions (D x W x H)	6.61" x 10.24" x 8.27"
Item Weight	21.6 pounds
Terminal Type	M8
BMS	100A
Charger Voltage	14.6V
Charger Current	40A
Cycle Life	4000+ cycles (@100% DOD), 6000 cycles (@80% DOD), 15000 cycles (@60% DOD)
Lifespan	10 Years
Automotive Fit Type	Universal Fit
Vehicle Service Type	Off Grid, RV, Solar Power Storage, Travel Trailer, Trolling Motor

Figure 7: Dimensions of the Redodo 12.8V 100Ah LiFePO4 battery (10.24"L x 6.61"W x 8.27"H) compared to a larger 12V 100Ah Group 31 battery.

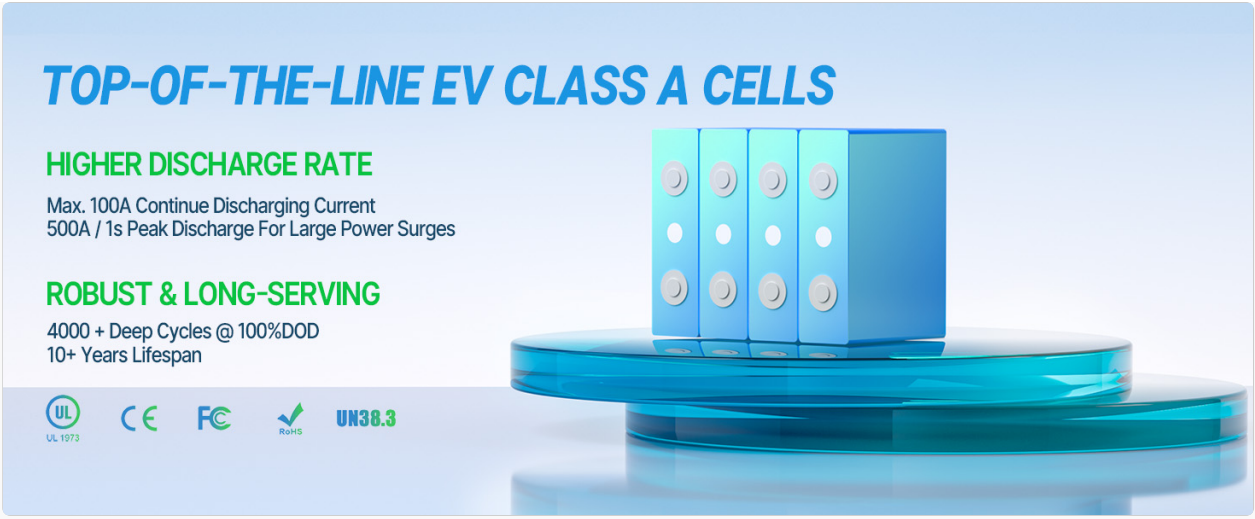


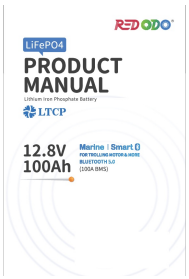
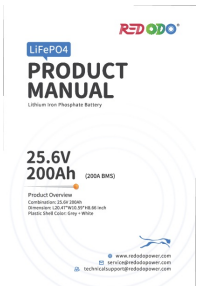
Figure 8: Overview of key features including 10 years lifespan, 4000+ cycles at 100% DOD, Group 24 size, and the powerful BMS.

9. Warranty and Support

Redodo offers a **5-year guarantee** on this product, ensuring reliability and customer satisfaction. The battery is designed for a **10-year lifespan** under normal operating conditions.
For technical assistance, troubleshooting, or warranty claims, please contact Redodo customer support. We aim to provide a **24-hour response** to inquiries.
You can find more information and contact details on the official Redodo website or through your purchase platform.

Related Documents - 12V 100Ah Group 24

	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.

	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.
	Redodo 12.8V 410Ah LiFePO4 Battery - 5120Wh Capacity, 3200W Output 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.
	REDODO 12.8V 100Ah MINI LiFePO4 REDODO 12.8V 100Ah MINI LiFePO4
	REDODO 12.8V 50Ah LiFePO4 - Bluetooth, REDODO 12.8V 50Ah LiFePO4 Bluetooth 5.0
	Redodo LiFePO4 25.6V 200Ah Battery Product Manual 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.