LOSSIGY LSG12V100AH-PT

LOSSIGY 12V 100AH LiFePO4 Lithium Battery Instruction Manual

Model: LSG12V100AH-PT

1. Introduction

This manual provides essential information for the safe and efficient use of your LOSSIGY 12V 100AH LiFePO4 Lithium Battery. This battery features advanced low-temperature protection and an integrated 100A Battery Management System (BMS), ensuring stable performance and a long lifespan. Please read this manual thoroughly before installation and operation.

Figure 1: LOSSIGY 12V 100AH LiFePO4 Lithium Battery

2. Key Features

- **Grade A Cells:** Manufactured with auto-grade A cells for higher energy density, stable performance, and greater power.
- **Extended Lifespan:** Provides at least 4000 cycles, offering a lifespan of approximately 10 years.
- **Integrated BMS:** Built-in 100A Battery Management System effectively protects against high temperature, low temperature, short circuit, over-current, and over-discharge. The BMS also allows for automatic cell balancing.
- **Easy Installation:** Designed for easier installation and movement compared to traditional series lead-acid batteries.
- **Versatile Connectivity:** Batteries can be safely connected in parallel or series to form larger capacity battery banks, including 48V systems.

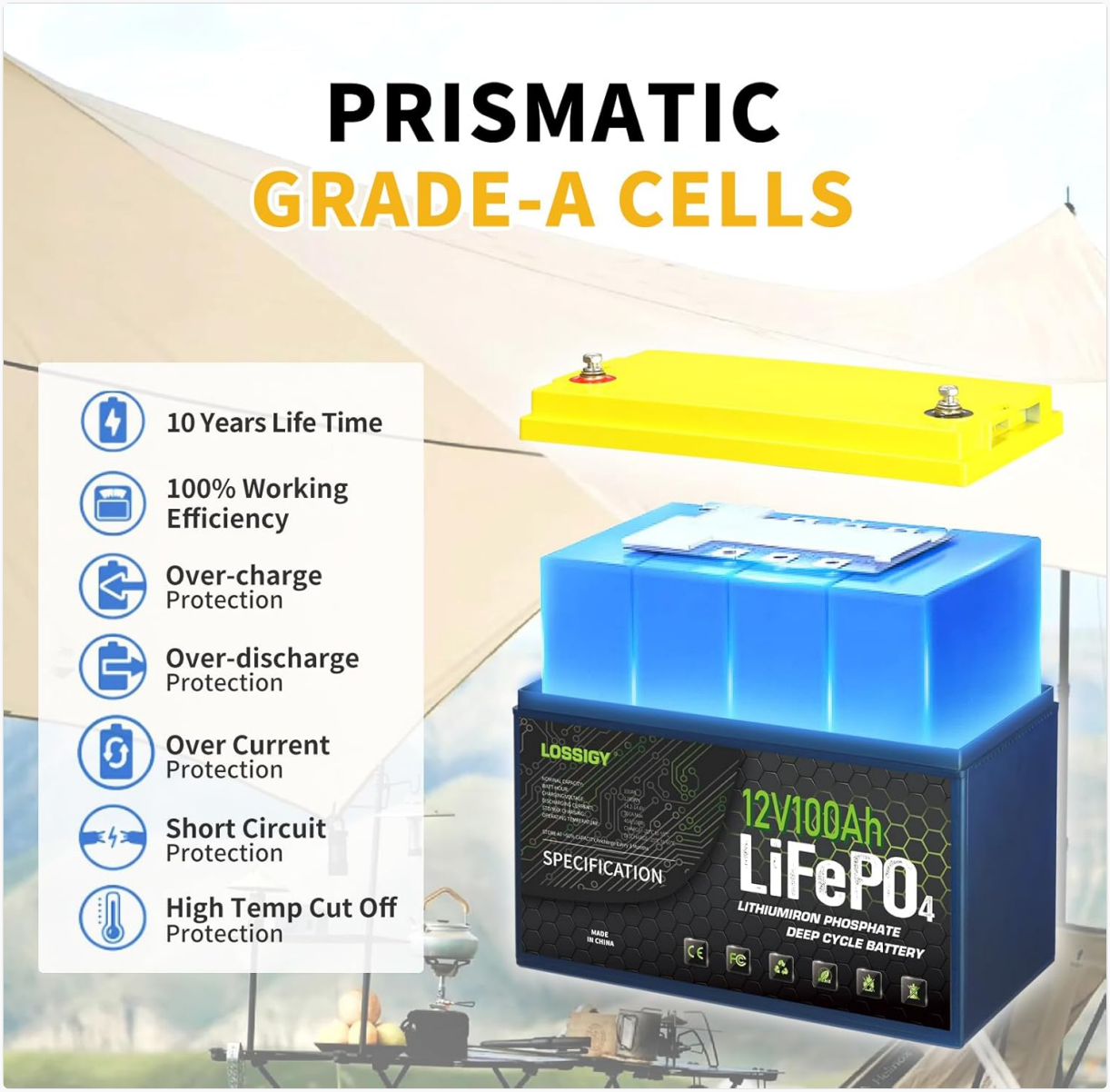

Figure 2: Internal structure highlighting Grade-A cells and BMS protection features.

3. Setup and Installation

The LOSSIGY LiFePO4 battery is designed for straightforward installation. Ensure all connections are secure and follow proper polarity.

3.1 Unboxing and Initial Inspection

Upon receiving your battery, carefully unbox it and inspect for any visible damage. The package includes the battery, a user manual, and terminal bolts with isolation caps.

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Video 1: Unboxing the WattCycle 100Ah LiFePO4 battery, showing package contents and initial setup steps.

3.2 Connecting the Battery

The battery comes with M8 terminal bolts (16mm). Ensure these are securely fastened to your system's cables. The battery can be connected in parallel or series to achieve desired voltage and capacity for applications such as golf carts, RVs, or solar systems.

Figure 3: Diagram illustrating the battery's internal components, including Grade A cells, 100A BMS, ABS material protection case, and M8 terminal bolts.

4. Operating Instructions

The LOSSIGY LiFePO4 battery is designed for deep cycle applications, providing reliable power for various uses.

4.1 Applications

This battery is ideal for:

- Golf Carts
- Trolling Motors
- Solar Systems
- Recreational Vehicles (RVs)
- Marine applications

Figure 4: LOSSIGY battery powering a trolling motor, highlighting its IP65 waterproof rating.

Figure 5: Multiple LOSSIGY batteries providing power for an RV and camping setup.

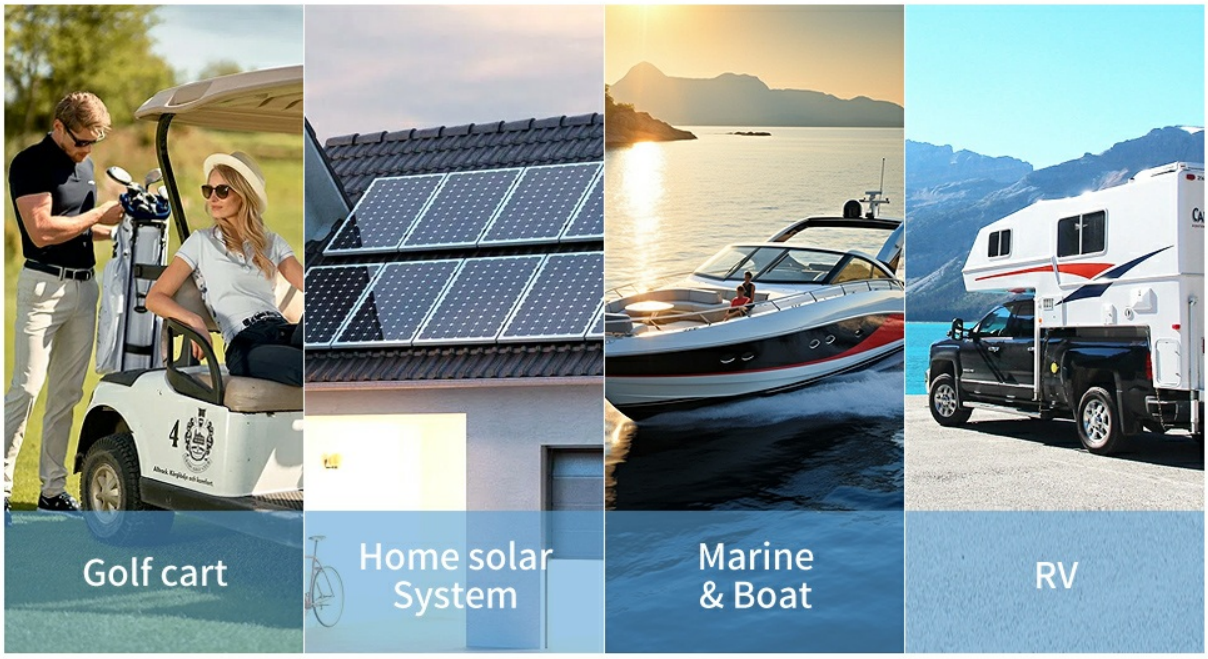

Figure 6: Visual representation of diverse applications for the LOSSIGY LiFePO4 battery.

4.2 Charging

Use a compatible LiFePO4 battery charger. The BMS ensures optimal charging and protection. Recommended charging voltage is 14.2V ~ 14.6V.

Figure 7: Recommended charging methods for the LOSSIGY battery, including MPPT controllers for solar, dedicated battery chargers, and generators/DC sources.

5. Maintenance

The LOSSIGY LiFePO4 battery requires minimal maintenance due to its advanced BMS.

- **Automatic Balancing:** The BMS system includes high-end chips that allow for automatic balancing within the battery, reducing the need for manual intervention.
- **Storage:** For optimal longevity, store the battery at >50% capacity and recharge every 3 months if not in regular use.
- **No Acid Maintenance:** Unlike lead-acid batteries, LiFePO4 batteries do not require electrolyte checks or acid refills.

6. Troubleshooting

The integrated BMS provides comprehensive protection against various issues. If the battery stops functioning, check the following protections:

- **Over-charge Protection:** Prevents damage from excessive charging voltage.
- **Over-discharge Protection:** Prevents damage from draining the battery too low.
- **Over-current Protection:** Shuts off power if current draw exceeds safe limits.
- **Short Circuit Protection:** Immediately cuts off power in case of a short circuit.
- **High Temperature Protection:** Disables charging/discharging if internal temperature exceeds safe operating limits (e.g., charging high temperature protection at 149°F/65°C, discharging high temperature

protection at 158°F/70°C).

- **Low Temperature Protection:** Disables charging/discharging if internal temperature drops below safe limits (e.g., charging low temperature protection at 32°F/0°C, discharging low temperature protection at -4°F/-20°C).

If a protection is triggered, the BMS will typically reset once the condition returns to normal. Consult the user manual for specific release conditions.

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Video 2: Addressing common issues and problems that may arise during battery use.

7. Specifications

Specification	Value
Brand	LOSSIGY
Model Number	LSG12V100AH-PT
Battery Cell Composition	Lithium Polymer
Battery Capacity	100 Amp Hours
Amperage	300 Amps (Peak Current)
Product Dimensions	6.77 x 12.95 x 8.42 inches

8. Warranty and Support

LOSSIGY is committed to customer satisfaction.

- **After-Sales Service:** Enjoy 90 days of worry-free after-sales service.
- **Technical Support:** 24-hour online professional technical support is available to assist with any issues.