

## Oasesenergy 51300N

# Oasesenergy 48V 300Ah LiFePO4 Lithium Battery User Manual

Model: 51300N

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Oasesenergy 48V 300Ah LiFePO4 Lithium Battery. This advanced battery features Grade-A LiFePO4 prismatic cells, offering high energy density, stable performance, and extended power. It includes a built-in 200A Battery Management System (BMS) for comprehensive protection, ensuring battery longevity and safety. Designed for various applications, it is an ideal choice for home energy storage, solar off-grid systems, and emergency power solutions.

Please read this manual thoroughly before installation and use to ensure proper functionality and to prevent damage or injury.

## 2. SAFETY INFORMATION

Observe the following safety precautions to prevent personal injury or damage to the battery and connected equipment:

- Do not disassemble, modify, or attempt to repair the battery.
- Keep the battery away from fire, heat sources, and direct sunlight.
- Avoid short-circuiting the battery terminals.
- Do not immerse the battery in water or other liquids.
- Ensure proper ventilation during operation and charging.
- Use only compatible chargers and inverters.
- Wear appropriate personal protective equipment (PPE) when handling the battery.

- Keep out of reach of children.

### **3. PRODUCT OVERVIEW AND FEATURES**

The Oasesenergy 48V 300Ah LiFePO4 battery provides a substantial 15.36kWh capacity for long-lasting energy storage. It supports RS485 and CAN communication protocols, ensuring compatibility with most 48V inverters available in the market. The integrated design simplifies installation, and built-in wheels enhance mobility. A touchable LCD screen allows for easy monitoring of battery information, including individual cell data and overall battery status when multiple units are connected in parallel. The system also features a warning mode to assist in identifying and resolving issues promptly.



Figure 3.1: Front view of the Oasesenergy 48V 300Ah LiFePO4 Lithium Battery, showcasing its compact design and integrated LCD screen.



Figure 3.2: The Oasesenergy 48V 300Ah LiFePO4 Battery integrated into a home energy system, highlighting its suitability for residential power supply.



Figure 3.3: Illustrates diverse applications including villas, homes, huts, and small farms, demonstrating the battery's versatility for various energy storage needs.

## 4. SETUP AND INSTALLATION

The Oasesenergy 48V 300Ah battery is designed for straightforward installation, eliminating complex wiring often associated with parallel setups. Its integrated structure allows for quick and seamless integration into residential and off-grid systems.

### 4.1 Unpacking



Figure 4.1: The shipping box for the Oasesenergy LiFePO<sub>4</sub> battery, displaying hazardous material labels (UN3480) for safe transport.

Carefully unpack the battery from its packaging. Inspect for any signs of damage during transit. Report any damage to your supplier immediately.

## 4.2 Placement

Position the battery in a dry, well-ventilated area, away from direct sunlight and extreme temperatures. The built-in wheels facilitate easy movement and positioning.

## 4.3 System Integration

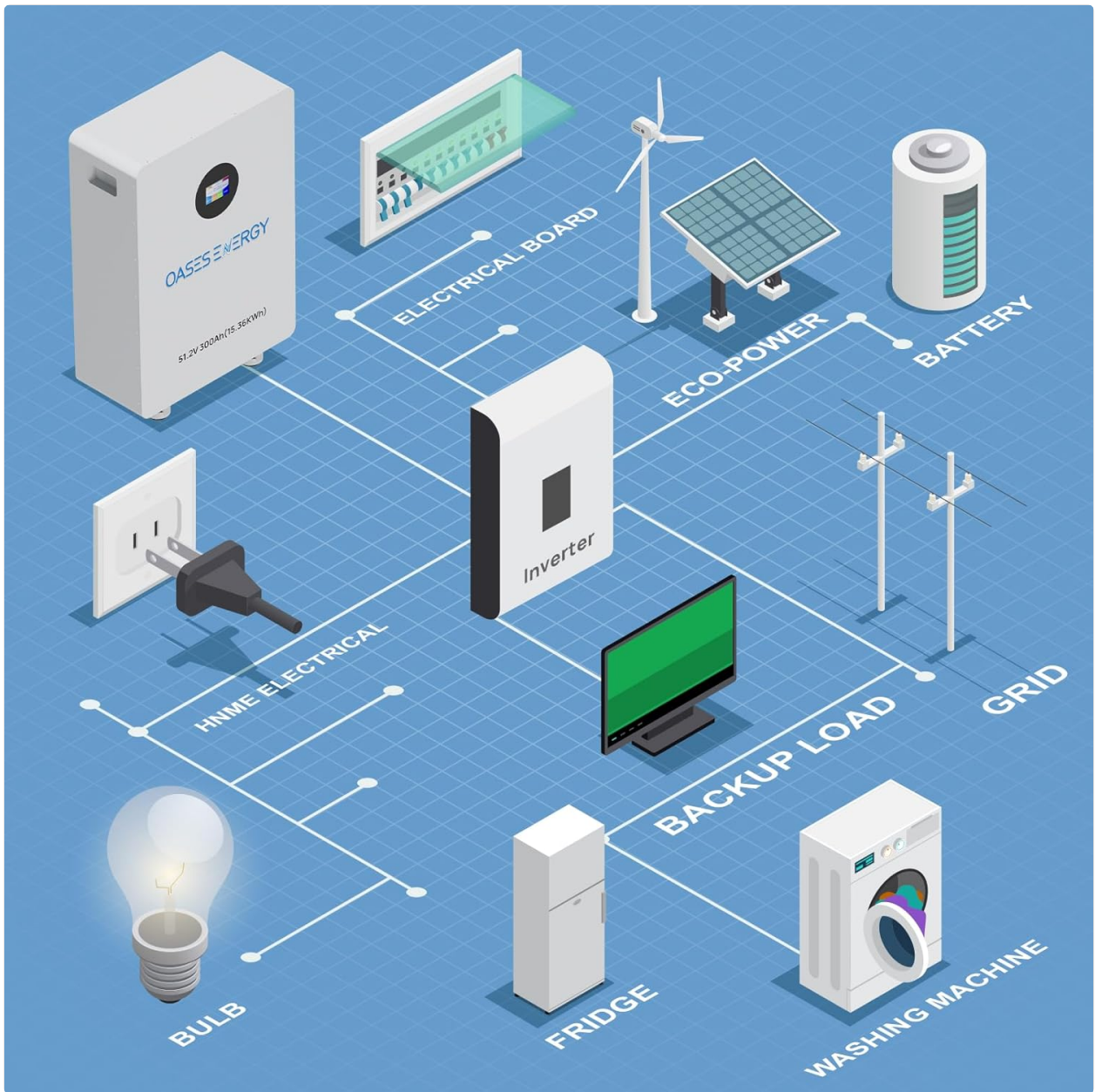


Figure 4.2: A schematic diagram illustrating the integration of the Oasesenergy battery with an inverter, solar panels, and household electrical loads for a comprehensive energy system.

# OASESENERGY

## 51.2V 300Ah LiFePO4 Battery

Power For Your Daily Life

15.36KWH

200A BMS



Figure 4.3: The Oasisenergy battery connected to an inverter, demonstrating a typical setup for home energy storage or off-grid applications.

Connect the battery to your inverter system using appropriate cables and connectors. Ensure all connections are secure and correctly polarized. The battery supports parallel connection of up to 16 units for increased capacity. **Serial connection is not supported.**

### 4.4 Initial Charging

Before first use, it is recommended to fully charge the battery according to the specifications provided in Section 7. This ensures optimal performance and calibration of the BMS.

## 5. OPERATING INSTRUCTIONS

The Oasisenergy battery is designed for user-friendly operation, primarily through its integrated touchable LCD monitor and communication capabilities.

### 5.1 LCD Monitor

## Smart Touch-Screen & APP Monitoring



Figure 5.1: The smart touch-screen interface on the Oasesenergy battery, showing real-time battery status, alongside a mobile application for remote monitoring.

The touchable LCD monitor provides real-time information about the battery's state, current, voltage, and other critical parameters. When multiple batteries are connected in parallel, you can monitor information for each individual cell and each battery unit. The user-friendly interface allows for easy navigation and data access.

### 5.2 Communication with Inverters

## SUPPORT RS485 & CAN COMMUNICATION

### Compatible with Various 48V Inverters



GOODWE

SO FAR

Deye

MUST®

Voltronic Power  
Power Quality Solutions

victron energy  
BLUE POWER

MEGAREVO

Growatt

LU X POWER<sup>TEK</sup>

PYLONTECH

SRNE

SMA

Figure 5.2: The Oasesenergy battery displaying compatibility with various 48V inverter brands through RS485 and CAN communication protocols.



Figure 5.3: The Oasesenergy battery in a modern kitchen environment, emphasizing its seamless integration and communication capabilities with a wide range of 48V inverters.

The battery supports RS485 and CAN communication, enabling intelligent interaction with compatible 48V inverters. Refer to your inverter's manual for specific connection and configuration details. This communication allows for optimized charging, discharging, and system management.

## 6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Oasesenergy LiFePO<sub>4</sub> battery.

- **Regular Inspection:** Periodically check the battery for any physical damage, loose connections, or signs of corrosion.
- **Cleaning:** Keep the battery terminals clean and free from dust and debris. Use a dry cloth for cleaning.
- **Temperature Management:** Ensure the battery operates within the specified charging and discharging temperature ranges (see Section 7). Avoid prolonged exposure to extreme temperatures.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50% State of Charge (SOC) and stored within the recommended storage temperature range (-20°C to 40°C).
- **Firmware Updates:** Check with Oasesenergy customer support for any available firmware updates for the BMS to ensure optimal performance and feature enhancements.

## 7. TROUBLESHOOTING

The integrated LCD monitor and warning mode are designed to assist in identifying and resolving common issues. If you encounter a problem, refer to the LCD display for error codes or warnings.

- **No Power Output:** Check all cable connections, ensure the battery is sufficiently charged, and verify the inverter status.
- **Charging Issues:** Confirm the charger is compatible and functioning correctly. Check charging voltage

and current settings. Ensure ambient temperature is within the charging range.

- **LCD Display Not Working:** Verify power supply to the battery. If the issue persists, contact customer support.
- **Warning/Error Codes:** Consult the specific error code displayed on the LCD screen. This will provide guidance on the nature of the problem. If unable to resolve, contact Oasesenergy support.

For complex issues or persistent problems, contact Oasesenergy customer support for assistance.

## 8. SPECIFICATIONS



Figure 8.1: Dimensional drawing of the Oasesenergy 48V 300Ah LiFePO4 battery, indicating its height, width, depth, and weight, along with the movable wheels.

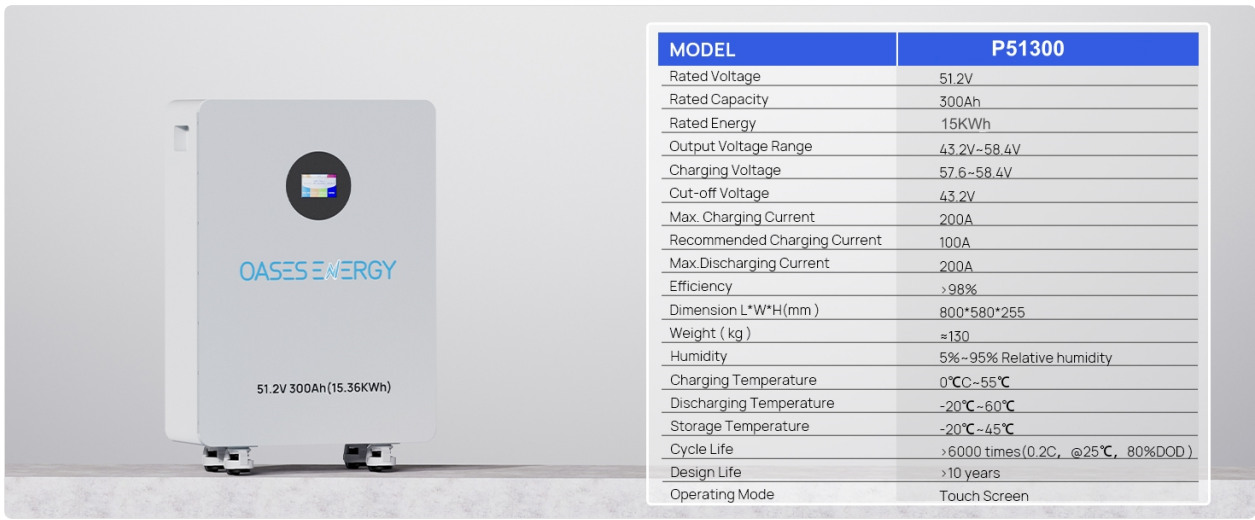


Figure 8.2: A detailed table outlining the technical specifications for the Oasesenergy P51300 battery model, including electrical, environmental, and physical parameters.

Parameter	Value
Model	51300N
Rated Voltage	51.2V
Rated Capacity	300Ah
Rated Energy	15.36kWh
Output Voltage Range	43.2V-58.4V
Charging Voltage	57.6V-58.4V
Cut-off Voltage	43.2V
Max Charging Current	200A
Recommended Charging Current	100A
Max Discharging Current	200A
Efficiency	>98%
Dimension (L*W*H)	800mm * 580mm * 255mm
Weight	~130 kg (278 lb)
Humidity	5% - 95% Relative Humidity
Charging Temperature	0°C ~ 55°C
Discharging Temperature	-20°C ~ 60°C
Storage Temperature	-20°C ~ 40°C
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)
Design Life	>10 years
Operating Mode	Touch Screen

## 9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact Oasesenergy customer support directly. Oasesenergy is committed to providing reliable products and excellent customer service.

If you require technical assistance, have questions about installation, operation, or maintenance, please contact Oasesenergy customer support through their official channels. Provide your product model (51300N) and any relevant details to facilitate efficient support.