

ECO-WORTHY L13L314AH-2

ECO-WORTHY 48V 314Ah LiFePO4 Battery Instruction Manual

Model: L13L314AH-2

1. SAFETY INFORMATION

Read all safety instructions carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, serious injury, or property damage.

- **Heavy Item:** The ECO-WORTHY 48V 314Ah battery weighs approximately 293 pounds (133 kg) per unit. Always use appropriate lifting equipment and personnel for transportation and installation.
- **Professional Installation:** Installation should be performed by qualified personnel familiar with electrical systems and battery safety.
- **Ventilation:** Ensure adequate ventilation around the battery to prevent heat buildup.
- **Avoid Short Circuits:** Do not short-circuit the battery terminals. Use insulated tools.
- **Water and Moisture:** Keep the battery away from water, moisture, and flammable materials.
- **Temperature:** Operate the battery within the specified temperature range.
- **Emergency Procedures:** In case of fire, use a Class D fire extinguisher. For electrolyte contact, flush with water and seek medical attention.

Compact Design for Easy Mobility and Installation



Image: Overview of the ECO-WORTHY 48V 314Ah LiFePO4 Lithium Battery, highlighting its 16.1kWh capacity and integrated breakers for high-capacity energy storage.


2. PRODUCT OVERVIEW

The ECO-WORTHY 48V 314Ah LiFePO4 Battery is a high-capacity energy storage solution designed for home backup, off-grid, and solar applications. It features advanced safety mechanisms, smart monitoring, and flexible installation options.

Key Features:

- **High Capacity:** 16.08 kWh capacity per unit, expandable up to 241 kWh by connecting up to 15 units in parallel.
- **Advanced BMS:** Integrated 200A PACE Battery Management System (BMS) for multi-layer safety, including passive cell balancing, pre-charge circuit design, and low-temperature charging protection.
- **Dual Protection:** An additional two-pole 125A (250A) circuit breaker provides reinforced protection, even if the BMS fails.
- **Premium Cells:** Utilizes genuine Grade A battery cells, offering over 6,000 cycles at 80% Depth of Discharge (SOH) for long-term reliability.
- **Smart Monitoring:** Features a 7-inch full-color display (800×480 resolution) for real-time status. Remote monitoring is available via Wi-Fi and PC connectivity through an RS232 port.
- **Universal Compatibility:** Equipped with RS485 and CAN interfaces for seamless communication with mainstream inverters, enabling closed-loop control.
- **Easy Mobility:** Designed with integrated handles and caster wheels for convenient positioning and installation.

Ships by Truck only

 please inform us your phone number for delivery



Payment Completed



Reply to Customer Service



Shipment Arranged

*Self-pickup is also available. Please contact us for details.

Image: Front view of the ECO-WORTHY 48V 314Ah LiFePO4 Battery, showcasing its compact design and integrated display.









<p>16.08kWh Capacity & Up to 15 in parallel</p> 	<p>Two-pole 125A (250A) circuit breaker</p> 	<p>7" Smart Monitoring with LCD</p> 
<p>5-year Service Support</p> 	<p>PACE 200A Home Energy Storage Level BMS</p> 	<p>Supports major protocols</p> 
<p>Grade A Battery Cells & 6000+ cycles @80% DOD</p> 	<p>Equipped with Caster Wheel</p> 	


Image: The ECO-WORTHY 48V 314Ah LiFePO4 Lithium Battery, illustrating its 16.1kWh high capacity and integrated breakers for robust energy storage.

3. SETUP AND INSTALLATION

3.1 Delivery and Handling

Due to its substantial size and weight, the 48V 314Ah battery is shipped on a pallet via truck. Ensure your delivery address can accommodate truck deliveries. Our customer service team will contact you after purchase to confirm delivery details.

Ships by Truck only

 please inform us your phone number for delivery



Payment
Completed



Reply to
Customer Service



Shipment
Arranged

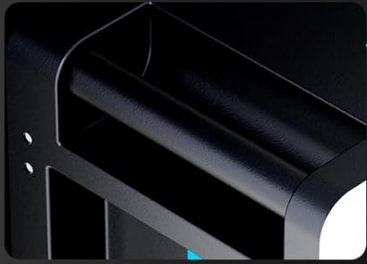
*Self-pickup is also available. Please contact us for details.

Image: Illustration of the truck-only shipping process, emphasizing the need for customer contact for delivery arrangements.

3.2 Positioning and Mobility

The battery is equipped with integrated handles and caster wheels for easier movement. Carefully position the battery in its intended location, ensuring it is on a stable, level surface and has adequate clearance for ventilation and connections.

Easy Installation, Effortless Mobility



Handles



Caster Wheel

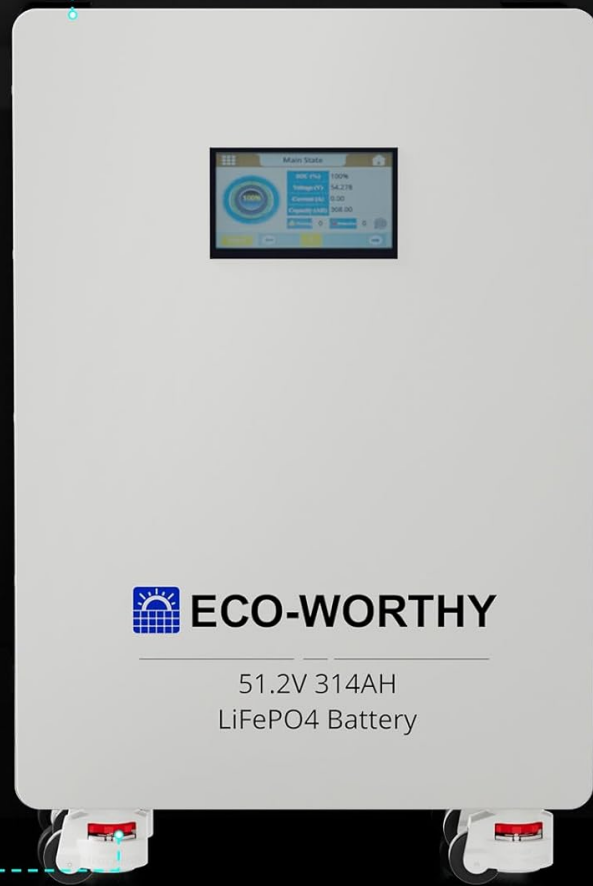


Image: Close-up view of the integrated handles and caster wheels on the ECO-WORTHY battery, designed for easy installation and mobility.

3.3 Electrical Connections

Connect the battery to your inverter or solar charge controller according to the manufacturer's instructions. Ensure all connections are secure and properly insulated. The battery supports parallel connection of up to 15 units to achieve higher capacity.

V1

Home Backup Power for All Your Needs

16.08kWh Capacity

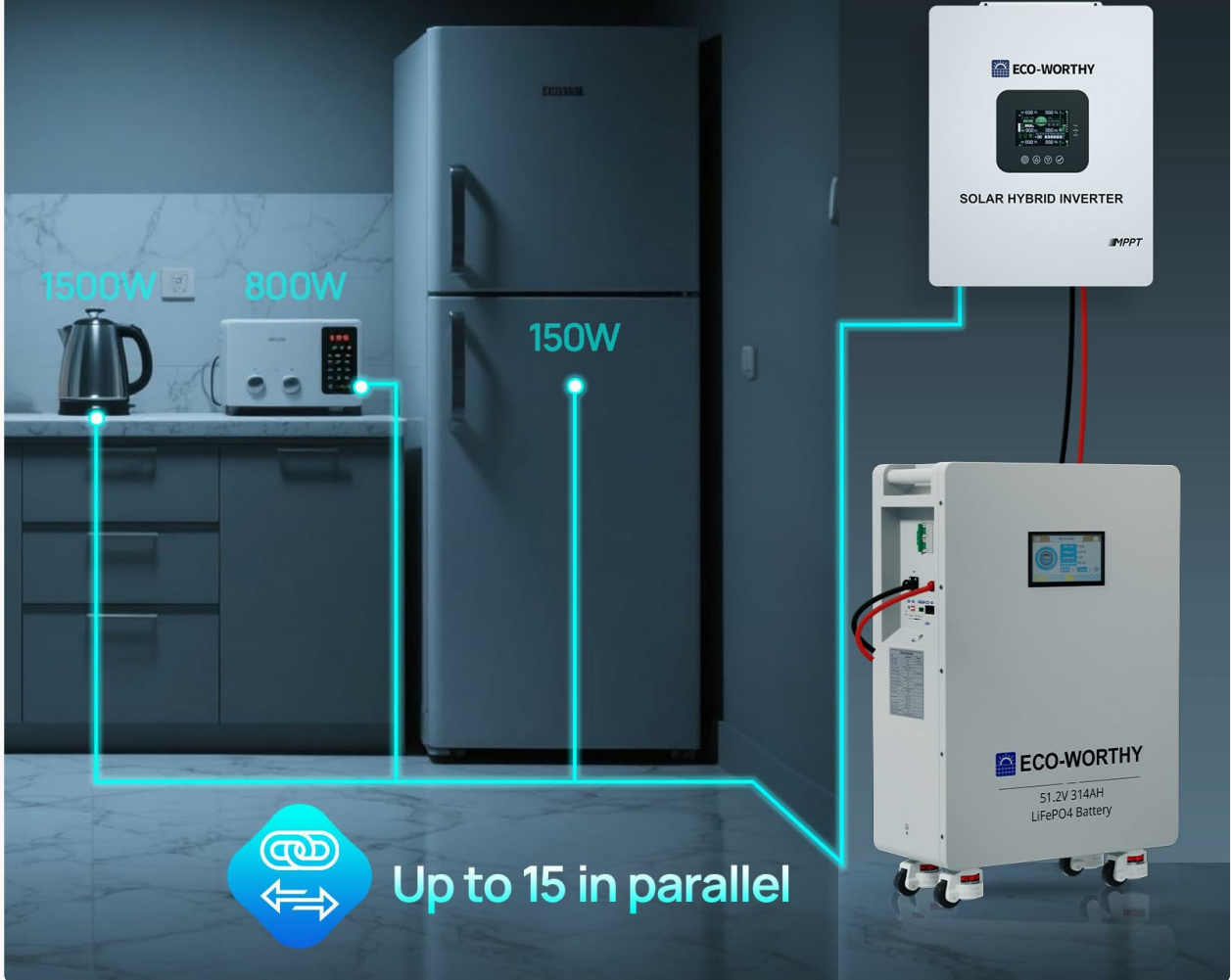


Image: Diagram showing the ECO-WORTHY battery connected to a solar hybrid inverter, providing backup power for various home appliances like a refrigerator and microwave.

Built-in **PACE 200A** Home Energy Storage Grade BMS



Passive Cell
Balancing



Pre-Charge
Circuit Design



Low-Temperature
Charging Protection



Supports major
protocols

Image: Visual representation of the ECO-WORTHY battery's built-in PACE 200A BMS, highlighting features like passive cell balancing, pre-charge circuit design, low-temperature charging protection, and support for major protocols.

Multiple Protections, Safeguarding Battery Safety

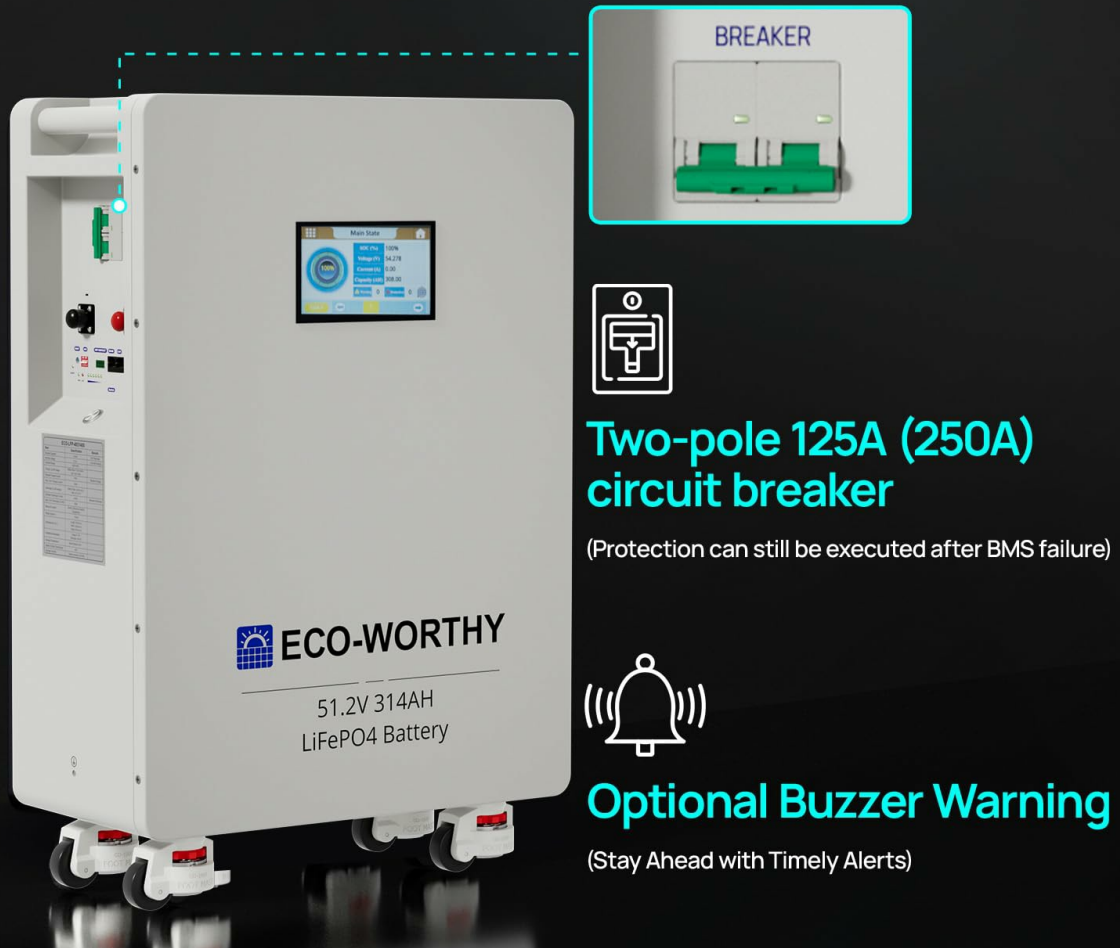


Image: The ECO-WORTHY battery featuring multiple protections, including a two-pole 125A (250A) circuit breaker for enhanced safety and an optional buzzer warning system.

4. OPERATING INSTRUCTIONS

4.1 Startup and Shutdown Sequence

Follow the correct sequence for powering on and off the battery to prevent data loss and ensure proper operation.

Startup: Circuit breaker → Main switch

Shutdown: Main switch → Circuit breaker

Warning: Incorrect sequence may cause State of Charge (SOC) data loss. A full recharge may be needed to reactivate the battery.

Smart Communication, Real-Time Battery Monitoring

7-inch Full Color Display (800x480 Resolution)



WiFi and Bluetooth



Connect to Inverters & PCs



Battery to Battery



Image: Depiction of the ECO-WORTHY battery's smart communication capabilities, including its 7-inch full-color display, Wi-Fi and Bluetooth connectivity, and ports for connecting to inverters and PCs for real-time monitoring.

V1

True Grade A Energy Storage Battery Cell

0.5C Charge/Discharge , 6000 Cycles + $\geq 80\%$ DOD, 5-year Service Support

6000+ cycles

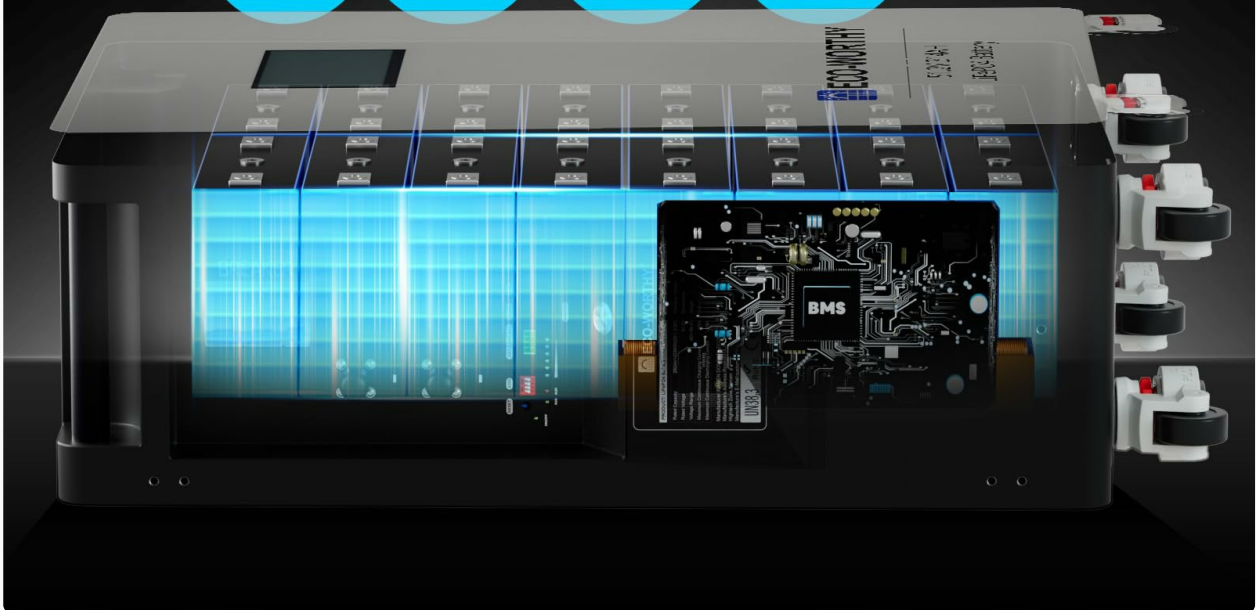


Image: An internal view of the ECO-WORTHY battery, showcasing the Grade A energy storage battery cells and the integrated BMS, emphasizing its 6000+ cycle life.

5. MAINTENANCE

The ECO-WORTHY LiFePO₄ battery is designed for minimal maintenance. However, regular checks can help ensure optimal performance and longevity.

- **Visual Inspection:** Periodically inspect the battery for any signs of physical damage, loose connections, or corrosion.
- **Cleanliness:** Keep the battery and its terminals clean and free from dust and debris. Use a dry cloth for cleaning.
- **Connection Checks:** Ensure all electrical connections remain tight and secure.
- **Software Updates:** If available, regularly check for and apply firmware or software updates for the BMS and monitoring system.
- **Environmental Conditions:** Ensure the battery operates within its specified temperature and humidity ranges.

6. TROUBLESHOOTING

If you encounter issues with your ECO-WORTHY battery, refer to the following basic troubleshooting steps. For complex problems, contact customer support.

- **No Power Output:**

- Check the main switch and circuit breaker are in the 'ON' position.
- Verify all cable connections are secure and free from damage.
- Check the battery display for any error codes or warnings.

- **Charging Issues:**

- Ensure the charger/inverter is properly connected and functioning.
- Confirm charging parameters (voltage, current) are within the battery's specifications.
- Check for high or low-temperature warnings on the display, which can halt charging.

- **Communication Problems:**

- Verify Wi-Fi or RS232/RS485/CAN cable connections.
- Ensure correct communication protocols are selected on the battery display and connected devices.
- Restart the battery and connected devices.

- **Unusual Noises or Smells:** Immediately disconnect the battery from all power sources and contact customer support.

7. SPECIFICATIONS

Smart Communication, Real-Time Battery Monitoring

7-inch Full Color Display (800x480 Resolution)



WiFi and Bluetooth



Connect to Inverters & PCs



Battery to Battery



Image: Detailed product specifications for the ECO-WORTHY 48V 314Ah LiFePO4 Battery, including dimensions, weight, and electrical parameters.

Specification	Value
Brand	ECO-WORTHY
Model	L13L314AH-2
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Rated Voltage	51.2 Volts
Voltage Range	40 - 58.4 Volts
Charging Voltage	58.4 Volts
Discharge Cut-off Voltage	40.0 Volts
Battery Capacity	314 Amp Hours
Nominal Energy	16.08 kWh

Specification	Value
Usable Energy	16.08 kWh
Standard Charging Current	≤100A
Maximum Charging Current	≤200A
Standard Discharge Current	≤100A
Maximum Discharge Current	200A (initial temperature ≤35°C)
Product Dimensions (D x W x H)	9.92" x 20.47" x 32.56" (25.2cm x 52cm x 82.7cm)
Item Weight	293 lbs (133 kg) per unit
Communication Interfaces	RS232, CAN, RS485
Maximum Parallel Units	15
Cycle Life	6,000 cycles at 80% SOH

8. WARRANTY AND SUPPORT

ECO-WORTHY provides a 5-year service support for this LiFePO4 battery, ensuring long-term reliability and customer satisfaction.

For Technical Support and Warranty Claims:

Please contact ECO-WORTHY customer service through the official website or your purchase platform. Have your model number (L13L314AH-2) and purchase date ready for faster assistance.

Website: www.eco-worthy.com

Email: Refer to your product packaging or official website for support email.

Phone: Refer to your product packaging or official website for support phone number.