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HiXiMi Black15kwhBOX

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1. INTRODUCTION AND OVERVIEW

This manual provides essential instructions for the safe and efficient assembly, operation, and maintenance of your HiXiMi 15kWh 48V LiFePO4 Battery Box. This product is designed for DIY solar energy storage systems and is suitable for various applications including RVs, off-grid setups, backup power, golf carts, home storage, and marine use. Please note that batteries are not included with the battery box.

The battery box is compatible with 174x72x207mm Class A LiFePO4 cells (280AH, 302AH, 304AH, 314AH). We recommend using EVE 280Ah or EVE 314Ah cells for optimal performance. The durable metal casing is made from 100% safe, non-toxic steel aluminum alloy with an anti-oxidation layer. The black model does not include wheels, while the white model (not this variant) comes with wheels.

A built-in smart 16S 200A Battery Management System (BMS) protects against overcharge, over-discharge, over-current, and short circuits, featuring an excellent self-discharge rate and integrated temperature protection. The BMS supports Bluetooth, CANbus, and RS485 communication, allowing real-time battery information monitoring via a smartphone application.

2. PACKAGE CONTENTS

The HiXiMi 15kWh 48V LiFePO4 Battery Box package includes all necessary components for assembly, excluding the battery cells themselves. Please verify that all items listed below are present upon unboxing.

- Empty metal case
- Epoxy plate
- BMS (Battery Management System)
- Communication board
- Monitor
- EVA foam
- Internet cable

- Screws
- Busbars
- M6 socket wrench

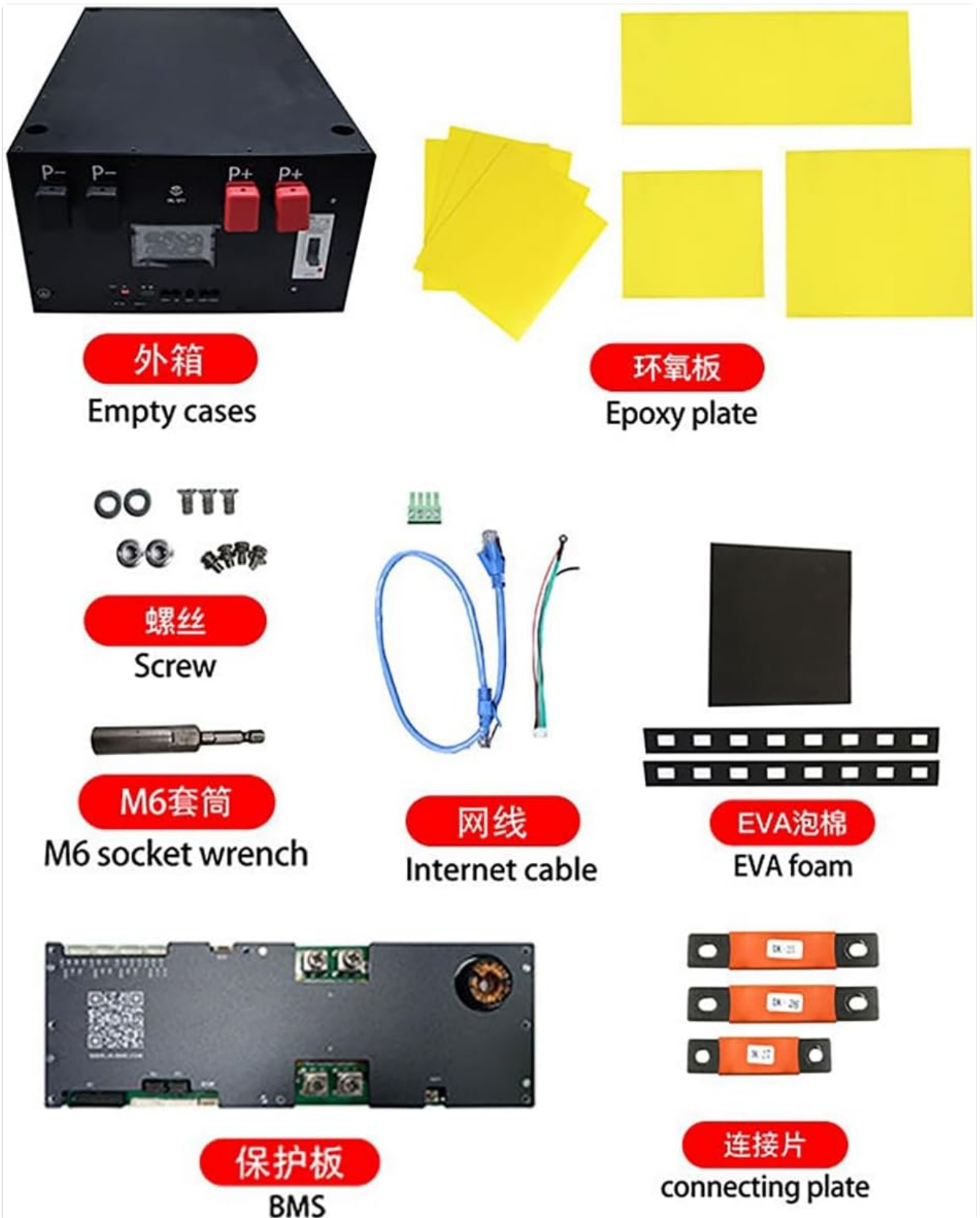


Figure 1: Exploded view of the HiXiMi 15kWh 48V LiFePO4 Battery Box components. This image displays all parts included in the package, such as the empty case, epoxy plate, BMS, communication board, monitor, EVA foam, internet cable, screws, busbars, and M6 socket wrench.

3. SAFETY INFORMATION

For your safety and to prevent damage to the product, please adhere to the following guidelines:

- Assembly should only be performed by a qualified electrician or under the supervision of one.
- Always wear appropriate personal protective equipment (PPE) during assembly and handling.
- Ensure all battery cells have the same voltage before assembly to prevent imbalance and potential damage.
- Use a torque wrench to tighten all nuts and screws to the recommended specifications (6-8 Nm) to ensure secure and safe connections.
- Never short-circuit the positive and negative terminals.
- Do not expose the battery box to fire or extreme temperatures.
- Ensure proper ventilation when operating the battery system.

4. SETUP AND ASSEMBLY

Follow these steps carefully to assemble your HiXiMi 15kWh 48V LiFePO4 Battery Box. Refer to the accompanying video for visual guidance.

1. **Prepare the Case:** Install the four handles and two latches onto the empty battery case.
2. **Check Battery Cells:** Before placing the cells, measure the voltage of each individual LiFePO4 cell to ensure they all have the same value. This is crucial for proper battery pack balancing.
3. **Insert Epoxy Boards:** Place the epoxy boards inside the case. Note that the bottom two pieces of epoxy board do not need to be taped.
4. **Place Insulating Boards:** Place two pieces of boards (one epoxy board and one insulating cotton) at the top and bottom sections of the case.
5. **Arrange Battery Cells:** Place the battery cells inside the case as shown in the assembly video, paying close attention to the positive and negative sequence. Insert a piece of insulating cotton between every two cells.
6. **Install BMS and Wiring:** Secure the front baffle using M6 screws, ensuring no gaps. Connect the BMS board and associated wiring.
7. **Connect Balance Boards:** Place the balance boards (Board A on the left, Board B on the right) on top of the cells. Use M4 black screws to fix both ends of these boards.
8. **Install Busbars and Connectors:** Place the busbars and connectors between the cell terminals. Lock the nuts as shown in the video, reinforcing all nuts with a torque wrench to between 6-8 Nm.
9. **Connect BMS Wires:** Insert the terminals of the row into the rubber shell one by one in the order of 1, 2, 3, and 4.
10. **Connect Display and Power Switch:** Connect the display and power switch cables from the front cover to the BMS.
11. **Install Fire Protection:** Our new model includes an added fire protection component. Install it as shown.
12. **Secure Epoxy Cover:** Use M4 black screws to fix the epoxy cover over the cells.
13. **Close Case:** Place the top cover plate with the countersunk holes facing upward and tighten it with M4 black screws.

Video 1: Introduction to the installation method for a DIY 48V 300Ah battery pack. This video provides a step-by-step visual guide for assembling the HiXiMi 15kWh 48V LiFePO4 Battery Box, including cell placement, wiring, and final enclosure.

Box (Box+BMS+Accessories)

STACKED DIY 280 / 306 / 314 KITS



280Ah
X
16PCS Lifepo4

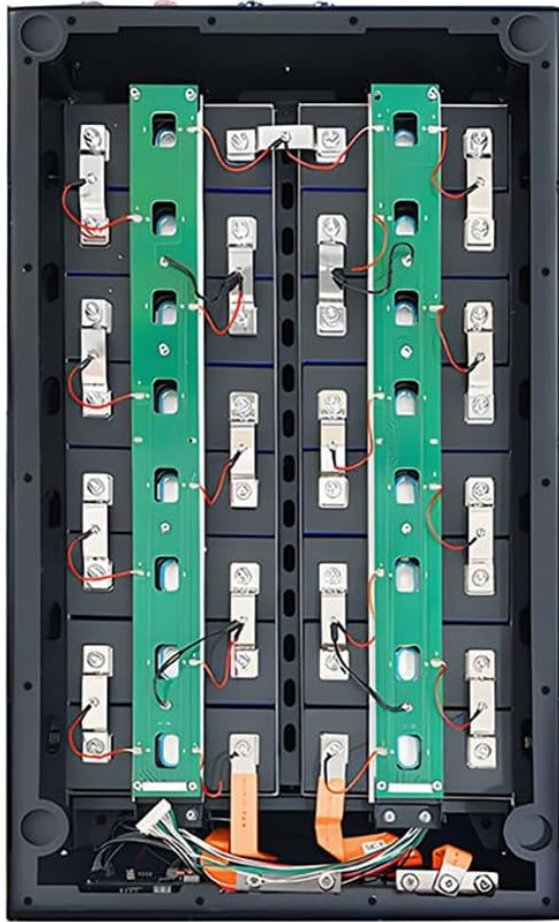


306Ah
X
16PCS Lifepo4



314Ah
X
16PCS Lifepo4

Figure 2: The HiXiMi battery box with LiFePO4 cells and the BMS installed. This image shows the internal arrangement of the battery cells and the integrated BMS unit within the metal casing.



48V
DIY BOX
280AH / 306AH / 314AH

JK BMS 200A
PB2A16S20P
4.3inch
Display Screen



Figure 3: An internal view of the HiXiMi battery box, showcasing the neatly arranged LiFePO₄ cells and their connections before the top cover is installed.

5. OPERATING INSTRUCTIONS

Once assembled, operating your HiXiMi battery box is straightforward:

1. **Power On:** Press and hold the power button for three seconds. The 4.3-inch touch screen will then start, displaying real-time battery information.
2. **Bluetooth Connection:** For detailed monitoring and to clear initial fault prompts, connect to the battery via Bluetooth. Hold your smartphone close to the device and tap the