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## HumsiENK 12V 314Ah Bluetooth MINI 3PCS

# HumsiENK 12V 314Ah LiFePO4 Lithium Battery User Manual

Model: 12V 314Ah Bluetooth MINI 3PCS

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your HumsiENK 12V 314Ah LiFePO4 Lithium Battery. This battery features an integrated Smart Battery Management System (BMS) with Bluetooth connectivity and low-temperature protection, designed for various applications including RVs, off-grid systems, solar power, home backup, and marine use. Please read this manual thoroughly before installation and operation.



Image: Three HumsiENK 12V 314Ah LiFePO4 batteries, highlighting the compact design and Bluetooth monitoring capability.

## 2. PACKAGE CONTENTS AND UNBOXING

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Upon receiving your HumsiENK 12V 314Ah LiFePO4 Lithium Battery, carefully inspect the packaging for any signs of damage. The package should contain the following items:

- 3 x HumsiENK 12V 314Ah LiFePO4 Lithium Battery (Mini Smart with Bluetooth)
- User Manual
- Battery bolt caps
- M8 terminals (12mm and 16mm bolts)

Refer to the unboxing video below for a visual guide to the package contents.

Your browser does not support the video tag.

Video: Unboxing of the HumsiENK 12V 314Ah LiFePO4 battery, showing the battery, user manual, and M8 terminals.

## 3. SETUP AND INSTALLATION

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### 3.1 Physical Dimensions and Placement

The compact design of the HumsiENK 12V 314Ah battery allows for flexible placement. Each battery weighs approximately 61.73 pounds (28 kg). Ensure the installation location is stable, well-ventilated, and protected from extreme temperatures and moisture.

**Length:** 15.24 inches (38.7 cm)

**Width:** 9.72 inches (24.69 cm)

**Height:** 7.6 inches (19.3 cm)

# Compact Size



61.73lbs / 28kg



Image: Detailed dimensions of the Humsienk 12V 314Ah LiFePO4 battery.

## 3.2 Electrical Connection

Connect the battery using appropriate M8 terminals. Ensure all connections are secure and properly insulated to prevent short circuits. Observe correct polarity (positive to positive, negative to negative) when connecting to your system or other batteries. For scalable energy storage, the battery supports up to a 4S4P configuration, allowing for a maximum system of 51.2V 1256Ah, totaling 64.3kWh. Consult a qualified electrician for complex multi-battery setups.



Image: Illustration of a scalable battery system using multiple Humsienk batteries in a 4S4P configuration.

### 3.3 Bluetooth App Setup

The HumsiENK battery features Bluetooth 5.0 for real-time monitoring via a dedicated smartphone application. Follow these steps to connect:

1. Scan the QR code located on the battery to download the HumsiENK app.
2. Open the app and ensure your device's Bluetooth is enabled.
3. The app will automatically detect nearby HumsiENK batteries. Select your battery to connect.
4. Once connected, you can monitor parameters such as voltage, current, and battery capacity.

The Bluetooth connection range is approximately 15 meters (49 feet) from the battery.



Image: A smartphone connected to the battery via Bluetooth, showing the monitoring interface.

## 4. OPERATION

### 4.1 Charging

The HumsienK LiFePO4 battery supports multiple charging methods:

- Dedicated LiFePO4 Charger
- Solar Panel with MPPT (Maximum Power Point Tracking) controller
- Generator

Always use chargers compatible with LiFePO4 batteries to ensure optimal performance and longevity. Avoid charging above 145°F (65°C) as the BMS will initiate a high-temperature cut-off.

## 4.2 Discharging and Capacity

Each 12.8V 314Ah LiFePO4 battery provides 4.19kWh of energy when fully charged. These batteries are designed for deep cycling, offering 5,000 to 15,000 deep discharge cycles, which translates to a lifespan of up to 10 years. This is significantly longer than traditional lead-acid batteries.

# Versatile Reliable Always Ready

**A+ Cells**

**Operating Temp**  
-4°F (-20°C) to 158°F (70°C)

**Remote Control**

**100A BMS**

**15000+ Cycles**

**10-Year Lifespan**

**3 Charging Modes**

- LiFePO4 Charger
- Solar Panel + MPPT
- Generator

Image: Overview of battery features including lifespan, cycle count, and operating temperature.

## 5. MAINTENANCE AND SAFETY

## 5.1 Battery Management System (BMS)

The integrated 100A Smart BMS provides comprehensive protection for the battery, ensuring long-term safety and stability. This includes:

- Overcharge Protection
- Over-discharge Protection
- Over-current Protection
- Short-circuit Protection
- High-temperature Cut-off (prevents charging above 145°F / 65°C)
- Low-temperature Cut-off (automatically cuts off charging under low temperatures to prevent damage)



Image: Visual representation of the intelligent BMS and its multi-protection features.

## 5.2 Operating Temperature Range

The battery is designed to operate in a wide range of temperatures. The low-temperature cut-off protection ensures the battery's

longevity in extreme conditions.

**Discharge Temperature:** -4°F to 158°F (-20°C to 70°C)

**Charge Temperature:** 32°F to 158°F (0°C to 70°C)

**Extreme-Temp Protection**

Our batteries can operate normally in extreme environments

**HUMSIENK**  
**LiFePO4**

**12V 314Ah**

**4019Wh**

**Mini<sup>smart</sup>**

**BMS 100A**

Discharge Temp: -4°F - 158°F (-20°C - 70°C)

Charge Temp: 32°F - 158°F (0°C - 70°C)

The image shows a black rectangular battery with a carrying handle, resting on a large block of ice. The background is a snowy, mountainous landscape. The battery's label features the Humsienk logo, chemical composition (LiFePO4), voltage and capacity (12V 314Ah), energy capacity (4019Wh), and a MiniSmart BMS 100A badge. At the bottom of the battery, there are several safety and compliance icons. A dark blue banner at the bottom of the image contains two temperature range icons: a snowflake for discharge and a sun for charge, with their respective Fahrenheit and Celsius ranges.

Image: Illustration of the battery's extreme temperature protection capabilities.

## 6. TROUBLESHOOTING

If you encounter issues with your Humsienk battery, consider the following common troubleshooting steps:

- **Battery Not Charging:**

- Verify the charger is compatible with LiFePO4 batteries and is functioning correctly.
- Check all cable connections for tightness and correct polarity.
- Ensure the ambient temperature is within the recommended charging range (32°F to 158°F / 0°C to 70°C). The BMS will prevent charging outside this range.

- **Bluetooth Connectivity Issues:**

- Ensure your smartphone's Bluetooth is enabled and within 15 meters of the battery.
- Restart the HumsiENK app and try reconnecting.
- Check if your phone's operating system is compatible with the latest app version.

- **Reduced Performance:**

- Confirm the battery is fully charged.
- Inspect connections for corrosion or looseness.
- Ensure the load connected to the battery does not exceed its continuous discharge current rating.

For persistent issues or concerns, please contact HumsiENK customer support.

## 7. SPECIFICATIONS

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Feature	Detail
Brand	HumsiENK
Model	3 PCS Bluetooth 12V 314Ah LiFePO4 Lithium Battery MINI
Nominal Voltage	12V
Capacity	314Ah
Energy	4.19kWh (per battery)
Cell Type	Grade A+ LiFePO4 cells
BMS	Integrated 100A Smart BMS with Bluetooth 5.0
Protection Features	Overcharge, Over-discharge, Over-current, Short-circuit, High-temperature Cut-off, Low-temperature Cut-off
Deep Cycles	5,000 to 15,000 (60% DOD)
Lifespan	Up to 10 years
Dimensions (L x W x H)	15.24 x 9.72 x 7.6 inches (38.7 x 24.69 x 19.3 cm)
Item Weight	61.73 pounds (28 kg) per battery
Terminal Type	M8 Terminal
Scalability	Supports up to 4S4P configuration (max 51.2V 1256Ah, 64.3kWh)

## 8. WARRANTY AND SUPPORT

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HumsiENK provides a five-year warranty for all batteries, ensuring peace of mind regarding your investment. Our commitment to quality and customer satisfaction is paramount.

For any questions, technical assistance, or warranty claims, please contact our customer support team. We offer 24-hour friendly and professional support to assist you.

**Customer Support:** Available 24/7

**Warranty Period:** 5 years

Additional protection plans may be available for purchase separately, such as a 3-Year Protection Plan, which offers extended coverage beyond the standard manufacturer's warranty.

