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**HumsiENK HS48V100AH200GCBTCYL**

# HumsiENK 48V 100Ah LiFePO4 Golf Cart Battery User Manual

Model: HS48V100AH200GCBTCYL

## 1. INTRODUCTION

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Thank you for choosing the HumsiENK 48V 100Ah LiFePO4 Golf Cart Battery. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your new battery. Please read this manual thoroughly before use and retain it for future reference.

This battery is designed for direct replacement in popular golf cart brands such as Club Car, EZGO, and Yamaha, and is also suitable for diverse applications including trolling motors, solar energy storage systems, RVs, and marine use.

# 2 Ways to Monitor Smart Control in Realtime

Compatible with all Golf Cart Models on the Market



Image: The HumsienK 48V 100Ah LiFePO4 Golf Cart Battery, showcasing its compatibility with various golf cart models, along with the Bluetooth app and LCD monitor for real-time monitoring.

## 2. SAFETY INSTRUCTIONS

Always prioritize safety when handling and operating the battery. Failure to follow these instructions can result in serious injury or damage to the product.

- **Read the Manual:** Understand all instructions before installation or use.
- **Proper Installation:** Ensure correct polarity and secure connections to prevent short circuits.
- **Ventilation:** Although LiFePO4 batteries produce minimal gas, ensure adequate ventilation during charging and discharging.
- **Avoid Short Circuits:** Do not allow metal objects to bridge the battery terminals.
- **Temperature Range:** Operate and store the battery within the specified temperature ranges. The battery features low-temperature cut-off for charging at 32°F (0°C) and can discharge down to -4°F (-20°C).
- **No Disassembly:** Do not attempt to open or disassemble the battery. This voids the warranty and can be

dangerous.

- **Charging:** Use only compatible LiFePO4 chargers.
- **Handling:** The battery is heavy (90.39 lbs). Use proper lifting techniques or assistance to avoid injury.
- **Fire Safety:** The metal casing is fireproof. However, in case of fire, use a Class D fire extinguisher.



Image: The HumsienK battery with its metal case, designed to defend against fire, shown in a rugged environment.

### 3. PRODUCT FEATURES

- **High-Safety Grade-A Cells & Metal Casing:** Robust metal casing provides fireproof, impact-resistant, and excellent heat dissipation properties.
- **Long Lifespan:** Offers over 15,000 cycles and a 10-year service life.
- **Integrated Forced Power Switch:** Allows instant one-touch restart for resolving unexpected issues.
- **Smart Dual Monitoring:** Equipped with Bluetooth 5.0 connectivity for real-time monitoring via the HumsienK app and an optional LCD monitor.

- **Wide Application:** Compatible with golf carts, trolling motors, solar energy storage systems, RVs, and marine use.
- **Powerful Performance:** 5120Wh capacity, 12800W output power, 200A sustained discharge current, and 500A (1s) burst capabilities.
- **Advanced 200A BMS:** Provides comprehensive protection against overcharging, over-discharging, overload, short circuits, and high/low temperatures.
- **Low-Temperature Protection:** Charging stops at 32°F (0°C) to protect the battery. Discharging is possible down to -4°F (-20°C).
- **Compact & Lightweight:** 62% lighter and 23% smaller than four 12V 100Ah lead-acid batteries, simplifying installation and reducing maintenance.
- **IP65 Rating:** Engineered for complete dust and water resistance.

## Metal Guard. Assured Ride.

Let power golf carts better and sturdier,  
regardless of environmental challenges.



Vibration-Proof



Corrosion-Proof



Puncture-Proof



Anti-Collision



Image: The battery's metal casing is shown to be vibration-proof, corrosion-proof, puncture-proof, and anti-collision, ensuring an assured ride.

# 200A BMS & Safety Breaker Double Protection



Over-current



Over-charging



Over-discharging



Over-heating



Short circuits

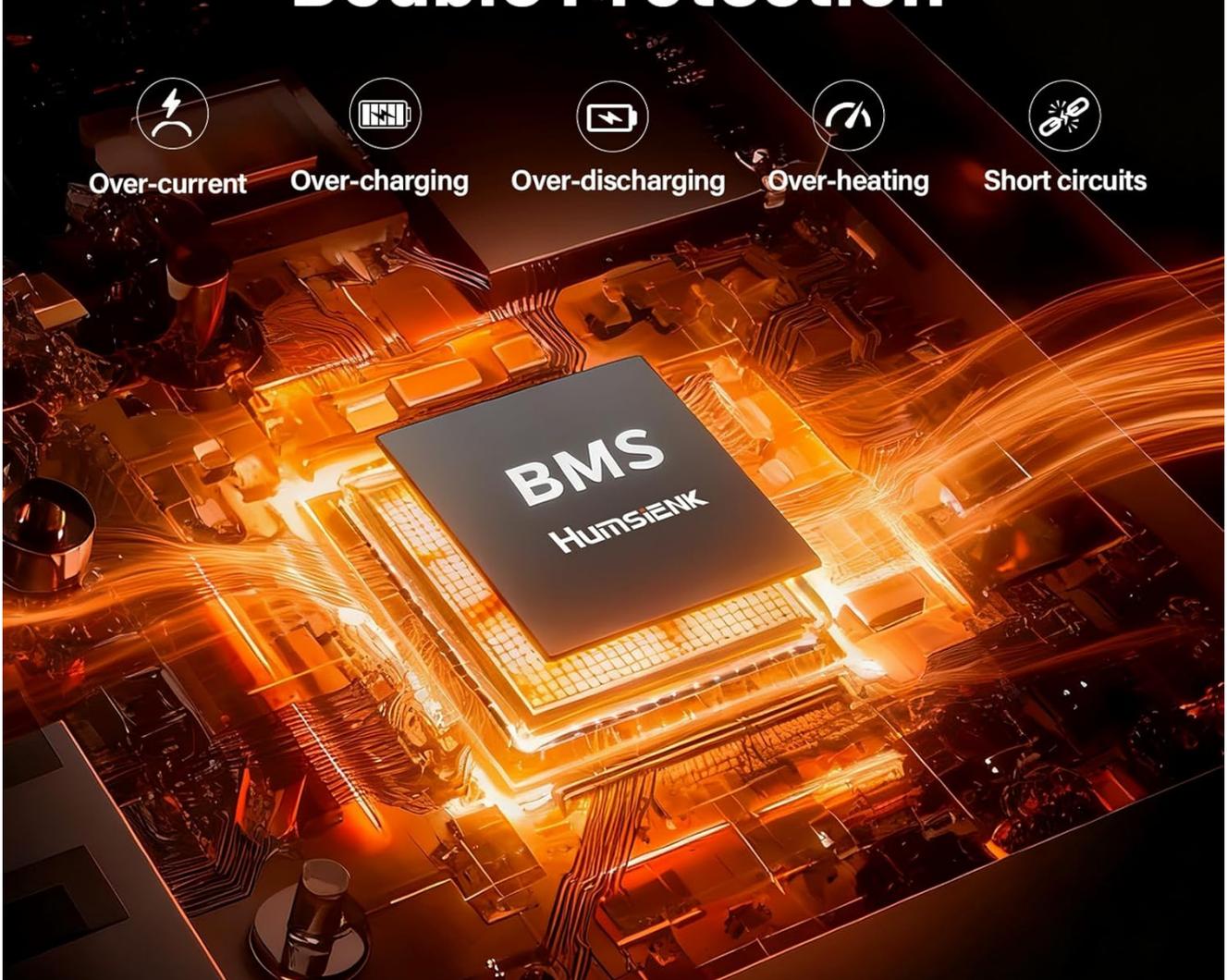
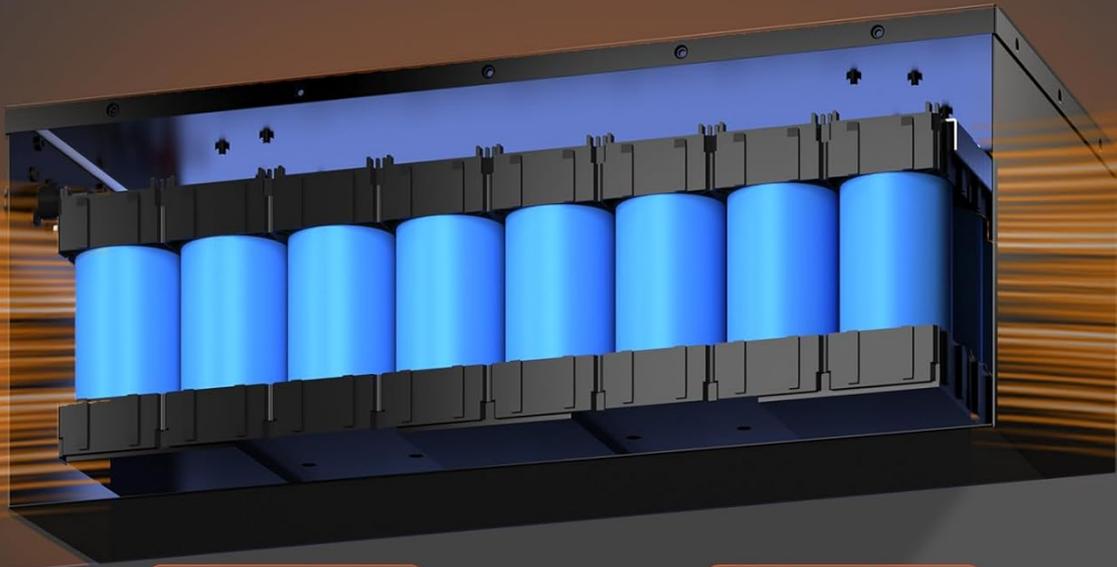


Image: An illustration of the 200A BMS (Battery Management System) providing double protection against various electrical faults.

# Efficient Heat Dissipation Long-Lasting Performance

Efficient Heat Dissipation, the Secret of Long-lasting



**15000+**  
Deep Cycles

**10 Years**  
of Usage without  
Replacing

Image: The internal structure of the battery, emphasizing efficient heat dissipation for long-lasting performance, with a lifespan of over 15,000 cycles or 10 years.

## 4. PACKAGE CONTENTS

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Upon unpacking, please verify that all items listed below are included and in good condition:

- Battery x1
- Battery Monitor Charging Cable x1
- M8 Screw x8
- Plastic Insulation Cap x2

## 5. SPECIFICATIONS

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<b>Feature</b>	<b>Specification</b>
Brand	HumsiENK
Model Number	HS48V100AH200GCBTCYL
Voltage	48 Volts
Capacity	100 Ah
Energy	5120 Wh
Max Output Power	10.24 kW
Continuous Discharge Current	200 A
Burst Discharge Current	500 A (1s)
Product Dimensions (L x W x H)	23.35" x 10.47" x 8.54" (59.3 x 26.6 x 21.7 cm)
Item Weight	90.39 lbs (41 kg)
Terminal Type	M8 Bolt
Operating Temperature (Discharge)	-4°F to 149°F (-20°C to 65°C)
Operating Temperature (Charge)	32°F to 113°F (0°C to 45°C)
IP Rating	IP65
Cycle Life	15,000+ cycles
Certifications	IEC, ROHS, CE, FCC, UN38.3, Class 9

# 48V 100Ah LiFePO4 Battery

 Weight: 89.4lbs



Image: Detailed view of the battery, highlighting its dimensions, power switch, communication ports (RS485/CAN/UART), and pressure relief valve.

## 6. INSTALLATION

The HumsiENK 48V 100Ah LiFePO4 battery is designed for simplified installation, often serving as a direct replacement for lead-acid batteries in golf carts.

### 6.1 Pre-Installation Checks

- Ensure the golf cart or application is turned off and disconnected from any power source.
- Verify that the battery compartment is clean, dry, and free of debris.
- Confirm that the existing wiring is in good condition and compatible with the new battery's voltage and current requirements.

### 6.2 Installation Steps

1. **Remove Old Battery (if applicable):** Carefully disconnect and remove the old battery, noting the positive and negative terminal positions.

2. **Position the New Battery:** Place the HumsiENK battery securely in the battery compartment. Its compact size (23.35" x 10.47" x 8.54") is designed to fit most standard golf cart trays.
3. **Connect Terminals:** Connect the positive (+) cable to the positive terminal and the negative (-) cable to the negative terminal. Use the provided M8 screws and ensure connections are tight and secure. Apply the plastic insulation caps to prevent accidental contact.
4. **Secure Wiring:** Ensure all wiring is neatly routed and secured to prevent chafing or damage during operation.
5. **Initial Charge:** It is recommended to fully charge the battery before its first use.

Your browser does not support the video tag.

Video: This video demonstrates the physical dimensions of the HumsiENK 48V 100Ah Golf Cart Battery, its simplified wiring process for golf carts, and its performance capabilities including speed boost, continuous output, and hill-climbing ability. It also shows the Bluetooth app monitoring feature.

## 7. OPERATION

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Operating your HumsiENK battery involves understanding its monitoring capabilities and performance characteristics.

### 7.1 Smart Dual Monitoring

The battery offers two ways to monitor its status:

- **Bluetooth APP:** Download the HumsiENK app (available for iOS and Android) to your smartphone. Connect via Bluetooth 5.0 to monitor real-time voltage, current, temperature, and other key parameters. The app also supports remote diagnostics and control of charging/discharging operations.
- **LCD Monitor:** An optional LCD monitor (included with some packages) provides a continuous display of essential battery data.

### 7.2 Performance Characteristics

- **Range:** Expect a remarkable 50+ mile range on a single charge in a golf cart application.
- **Power Output:** The 5120Wh capacity and 12800W output power are designed to handle high-powered golf carts.
- **Hill-Climbing:** With a sustained discharge current of 200A and burst capabilities of 500A (1s), the battery provides ample torque for navigating hills and rough terrain.
- **Charging Time:** A full charge can be achieved in approximately 6.7 hours with a suitable charger.

# A Worry-Free Golf Journey: Conquer any hill with 410A peak power



Image: Golf carts demonstrating the battery's ability to conquer hills with significant peak power.

# 5120Wh Power for Daily Life



Image: An illustration of the battery's 5120Wh capacity providing power for daily life, including various appliances and their estimated run times.

## 8. MAINTENANCE

The HumsienK LiFePO4 battery is designed for minimal maintenance, offering a long and reliable service life.

- **Regular Inspection:** Periodically check battery terminals for corrosion and ensure connections remain tight.
- **Cleaning:** Keep the battery surface clean and dry. Use a damp cloth if necessary.
- **Temperature Management:** The built-in BMS includes low-temperature cut-off for charging at 32°F (0°C) and can discharge down to -4°F (-20°C). Avoid operating or storing the battery outside its recommended temperature range to maximize lifespan.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50% state of charge and stored in a cool, dry place.
- **Water and Dust Resistance:** The IP65 rating ensures protection against dust and water jets, reducing the need for specific environmental maintenance.

## 9. TROUBLESHOOTING

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This section provides general guidance for common issues. For complex problems, please contact HumsiENK customer support.

- **Battery Not Charging:**

- Check charger connection and ensure it is a compatible LiFePO4 charger.
- Verify power outlet is functional.
- Ensure ambient temperature is above 32°F (0°C) for charging.

- **No Power Output:**

- Check all cable connections for tightness and correct polarity.
- Ensure the battery's integrated power switch is in the 'ON' position.
- Check the battery's state of charge via the app or LCD monitor.
- The BMS may have activated a protection mode (e.g., over-discharge, short circuit). Disconnect the load, wait a few minutes, and try restarting the battery with the power switch.

- **Bluetooth Connection Issues:**

- Ensure Bluetooth is enabled on your smartphone.
- Make sure you are within range of the battery.
- Restart the app or your phone.

## 10. WARRANTY AND SUPPORT

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The HumsiENK 48V 100Ah LiFePO4 Golf Cart Battery comes with a comprehensive **5-year manufacturer's warranty**.

This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.

For technical support, warranty claims, or any questions not covered in this manual, please contact HumsiENK customer service through the official website or your point of purchase.

Quality and safety are certified by leading international standards: IEC, ROHS, CE, FCC, UN38.3, and Class 9.