

VEVOR HD-51.2-100-TK-C

VEVOR 48V 105Ah Golf Cart Lithium Battery User Manual

Model: HD-51.2-100-TK-C

Brand: VEVOR

1. INTRODUCTION

Thank you for choosing the VEVOR 48V 105Ah Golf Cart Lithium Battery. This LiFePO₄ battery is designed to provide exceptional power and longevity for your golf cart, offering a superior alternative to traditional lead-acid batteries. This manual provides essential information for the safe installation, operation, and maintenance of your new battery to ensure optimal performance and extended lifespan.

2. SAFETY INFORMATION

Please read all safety instructions carefully before installation and operation. Failure to follow these instructions may result in serious injury, property damage, or voiding of the warranty.

- **Electrical Safety:** Always disconnect the golf cart's main power before working on the battery system. Use insulated tools.
- **Handling:** The battery is heavy (approximately 105.6 lbs / 47.9 kg). Use appropriate lifting techniques or assistance to prevent injury.
- **Ventilation:** Ensure adequate ventilation during charging and operation.
- **Charging:** Only use the provided 58.4VDC 20A charger. Do not use chargers designed for lead-acid batteries.
- **Temperature:** Operate and store the battery within the recommended temperature ranges. Avoid extreme heat or cold. Charging cut-off is below 23°F (-5°C), recovery of charging is above 32°F (0°C), and discharge cut-off is below -4°F (-20°C).
- **Short Circuits:** Prevent short circuits by ensuring terminals are properly covered and connections are secure.

- **Disposal:** Dispose of the battery according to local regulations. Do not incinerate.

3. PRODUCT OVERVIEW & COMPONENTS

The VEVOR 48V 105Ah Golf Cart Lithium Battery system includes the following components:



The complete VEVOR 48V 105Ah Golf Cart Lithium Battery system, including the battery unit, charger, 2.8-inch touchscreen display, and connection accessories.



Item Model Number : **HD-51.2-100-TK-C**
Interaction Method : **Bluetooth + 2.8 in Touch Screen**
Battery Pack Voltage : **51.2VDC**
Maximum Output Power : **10240W**
Continuous Discharge Current : **200A**
Maximum Discharge Current : **400A (35S)**
Main Material : **Cold-rolled steel casing with baked paint**
Discharge Rate : **2C** Peak Discharge Current : **600A (3S)**
Waterproof Rating : **IP65** Net Weight : **105.6 lbs / 47.9 kg**
Product Dimensions : **21.65 × 11.81 × 9.05 in / 550 × 300 × 230 mm**
Accessories : **1 × 2.8 in Display Screen Touch Control, 1 × Display Screen Bracket**
1 × Display Screen Cable (1.5 m) , 1 × Charger
2 × Positive and Negative Terminal Covers
1 × Charger DC Connection Cable (0.8 m) , 1 × User Manual
1 × Charger AC Power Cord (2 m) , 10 × Screws

Detailed view of the battery unit and its accompanying accessories, including the display, charger, and various cables and covers.

What's in the Box:

- 1 x Golf Cart Battery (51.2VDC 105Ah LiFePO4)
- 1 x 2.8 in Display Screen Touch Control
- 1 x Display Screen Bracket
- 1 x Display Screen Cable (1.5 m)
- 10 x Screws
- 1 x Charger (58.4VDC 20A)
- 1 x Charger DC Connection Cable (0.8 m)
- 1 x Charger AC Power Cord (2 m)
- 1 x User Manual
- 2 x Positive and Negative Terminal Covers

4. INSTALLATION

The VEVOR LiFePO4 battery is designed for easy installation as a direct replacement for lead-acid batteries in 48V golf carts. Its compact and integrated design saves space and simplifies wiring.

Designed Specifically for 48V Golf Carts

Ideal replacement for lead-acid batteries



The battery's dimensions are 21.65 x 11.81 x 9.05 inches (550 x 300 x 230 mm), and it weighs 105.6 lbs (47.9 kg), making it significantly lighter than typical lead-acid setups.



The integrated design of the VEVOR lithium battery offers a space-saving solution and simpler wiring compared to multiple series-connected lead-acid batteries.

General Installation Steps:

- 1. Preparation:** Ensure the golf cart is turned off and the main power is disconnected. Wear appropriate safety gear.
- 2. Remove Old Batteries:** Carefully remove existing lead-acid batteries. Note the wiring configuration before removal.
- 3. Install New Battery:** Place the VEVOR lithium battery in the battery compartment. Secure it to prevent movement during operation.
- 4. Wiring:** Connect the battery terminals to the golf cart's electrical system. Ensure correct polarity (positive to positive, negative to negative). The aviation-grade connector simplifies charger wiring.
- 5. Display Installation:** Install the 2.8-inch touchscreen display in a convenient location on your golf cart's dashboard using the provided bracket and screws. Connect the display cable to the battery.
- 6. OBC Bypass (for Club Car models):** For Club Car golf carts, it is essential to disable and bypass the On-Board Computer (OBC) system. Consult specific guides or videos for your Club Car model on how to perform an OBC bypass to ensure proper battery function and accurate capacity readings.
- 7. Final Check:** Double-check all connections for tightness and correct polarity before reconnecting the main power.

5. OPERATION

Performance Characteristics:

The VEVOR 48V 105Ah LiFePO4 battery is engineered for high performance, providing consistent power throughout its discharge cycle.

50 Miles Range on a Single Charge

105Ah Large Capacity



Enjoy an estimated 50-mile range on a single charge, thanks to the 105Ah large capacity and EV-grade LiFePO4 cells.

Climb with Ease, Run Faster

2C Discharge Rate



200A

Continuous Discharge



400A^(35S)

Maximum Discharge



600A^(3S)

Peak Discharge



The battery features a 2C discharge rate, with continuous discharge at 200A, maximum discharge at 400A (35 seconds), and peak discharge at 600A (3 seconds), enabling easy hill climbing and enhanced performance.

Battery Monitoring:

Monitor your battery's status in real-time using the integrated 2.8-inch touchscreen display or the dedicated mobile application via Bluetooth.

Real-Time Battery Monitoring / Control

2 Control Methods

APP Monitoring

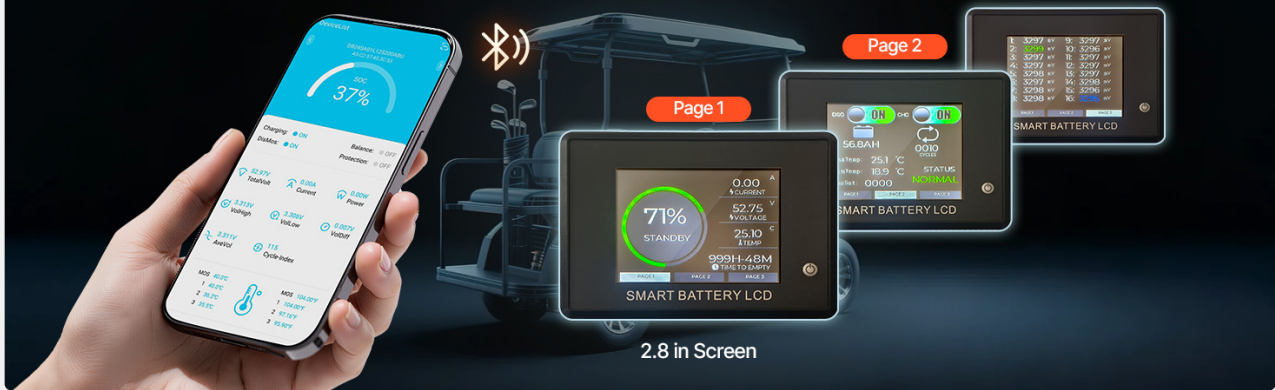


2.8 in Display Screen
Touch Control



The 2.8-inch touchscreen and mobile app provide instant access to battery information, including charge/discharge status, voltage, current, and remaining capacity.

Real-time Battery Monitoring



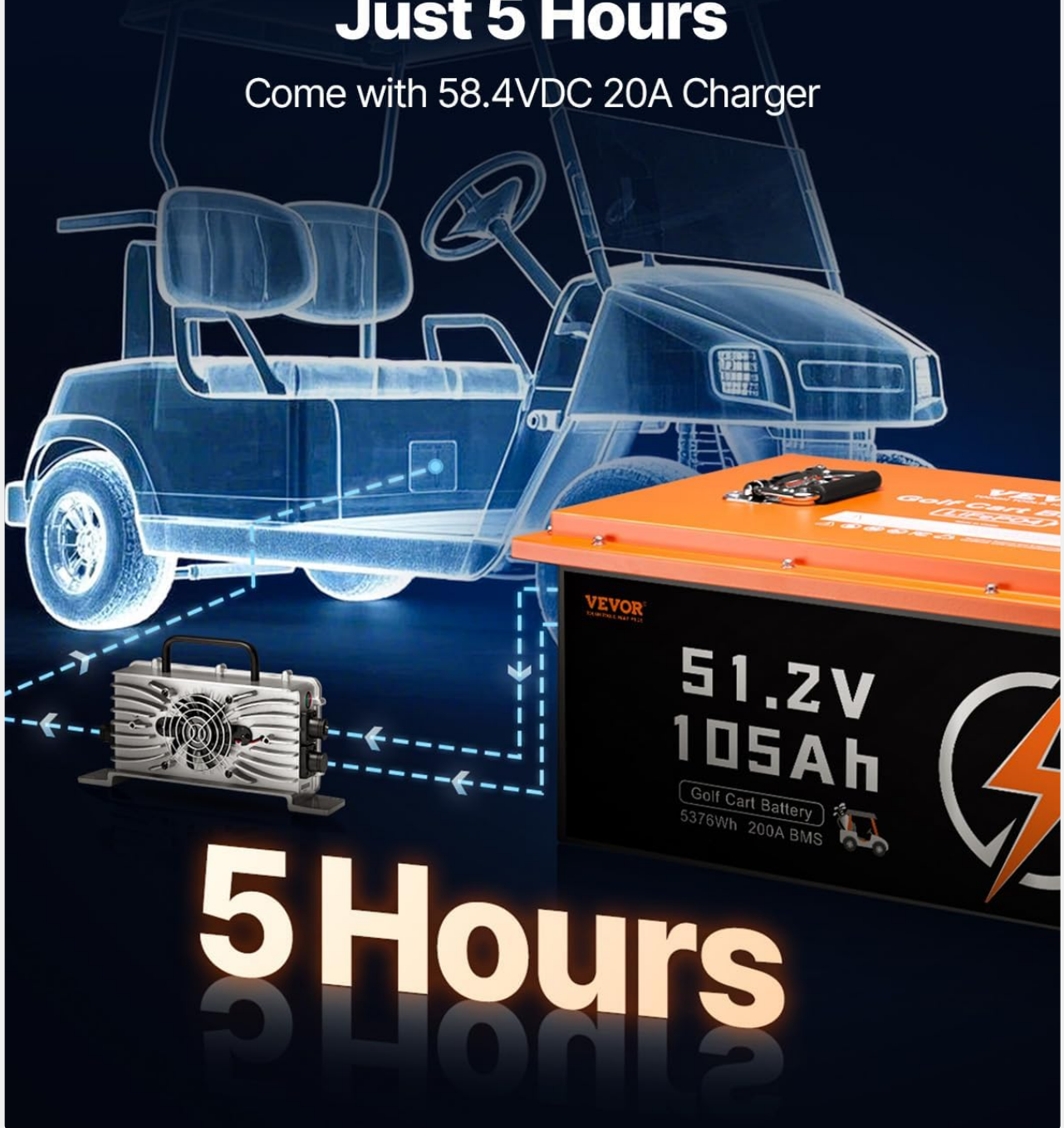
The display offers multiple pages of data, allowing comprehensive real-time monitoring of battery parameters.

Charging:

Use the included 58.4VDC 20A charger for efficient and safe charging.

Fully Charged in Just 5 Hours

Come with 58.4VDC 20A Charger



The battery can be fully charged in approximately 5 hours using the provided 58.4VDC 20A charger.



Aviation Connector

More Flexible Charging

The aviation-grade connector ensures flexible and easy connection for charging.

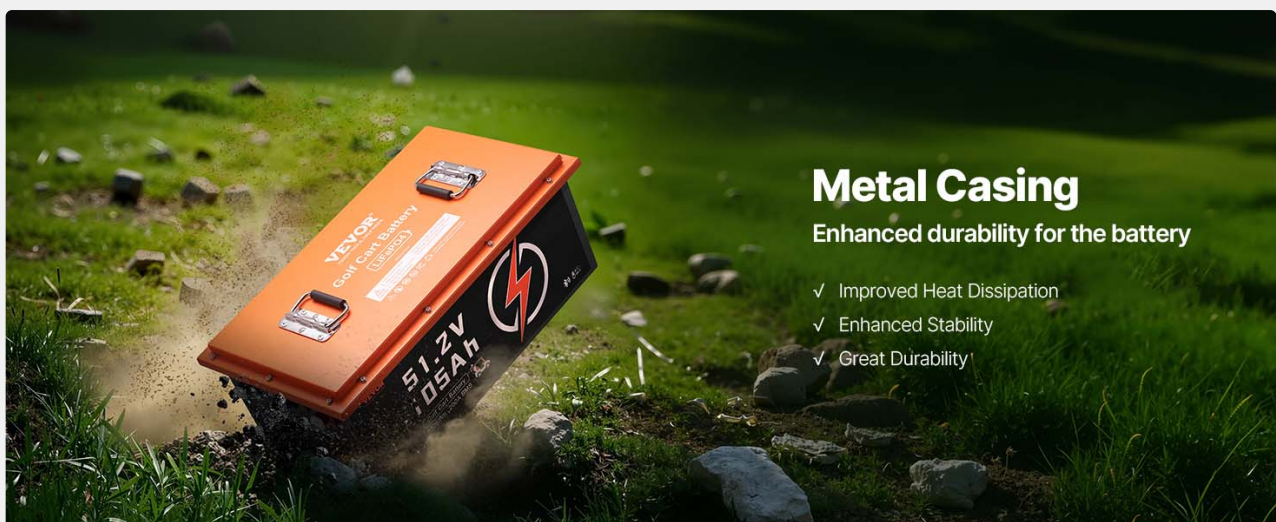
Charging Procedure:

1. Connect the charger's DC output cable to the battery's charging port.
2. Plug the charger's AC power cord into a suitable power outlet.
3. The charger will indicate charging status. Once fully charged, disconnect the charger.

6. MAINTENANCE & CARE

The VEVOR LiFePO4 battery is designed for minimal maintenance and a long lifespan of over 4000 cycles.

- **Cleaning:** Keep the battery and terminals clean and free of dirt or corrosion. Use a dry cloth for cleaning.
- **Connections:** Periodically check all electrical connections to ensure they are tight and secure.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50-80% capacity and stored in a cool, dry place within the recommended temperature range.
- **Temperature Management:** The battery features a metal casing for efficient heat dissipation, contributing to its durability. It is designed to handle various temperatures, with specific cut-off and recovery points for charging and discharging to protect the battery.



Metal Casing

Enhanced durability for the battery

- ✓ Improved Heat Dissipation
- ✓ Enhanced Stability
- ✓ Great Durability

The robust metal casing enhances durability and improves heat dissipation for prolonged battery life.



The battery is designed to operate across a range of temperatures, with built-in protections for extreme cold: charging cuts off below 23°F (-5°C), charging recovers above 32°F (0°C), and discharging cuts off below -4°F (-20°C).

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your VEVOR golf cart battery.

Problem	Possible Cause	Solution
Battery not charging	Charger not connected properly; Faulty charger; Battery Management System (BMS) protection engaged.	Ensure all charger connections are secure. Verify charger functionality. If BMS is stuck on 'Soft Protect' or similar, try disconnecting and reconnecting the battery, or consult VEVOR support.
Golf cart stops or electronic brake engages randomly (especially EZGO RXV)	Incompatibility with certain golf cart controllers due to battery output characteristics (e.g., maximum charging current of 50 amps for EZGO RXV models).	This issue has been reported with some EZGO RXV models. The golf cart's controller may interpret the battery's output as an error, leading to safety shutdowns. Consult VEVOR support or a qualified golf cart technician for potential controller adjustments or compatibility solutions.
Reduced range or power	Battery not fully charged; High power demand; Extreme temperatures.	Ensure battery is fully charged before use. Reduce heavy loads if possible. Operate within recommended temperature ranges.
Display not working or showing incorrect data	Loose cable connection; Display unit fault.	Check the display cable connection to the battery. If the issue persists, contact VEVOR support.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact VEVOR customer support.

8. SPECIFICATIONS



Item Model Number : **HD-51.2-100-TK-C**

Interaction Method : **Bluetooth + 2.8 in Touch Screen**

Battery Pack Voltage : **51.2VDC**

Maximum Output Power : **10240W**

Continuous Discharge Current : **200A**

Maximum Discharge Current : **400A (35S)**

Main Material : **Cold-rolled steel casing with baked paint**

Discharge Rate : **2C**

Peak Discharge Current : **600A (3S)**

Waterproof Rating : **IP65**

Net Weight : **105.6 lbs / 47.9 kg**

Product Dimensions : **21.65 × 11.81 × 9.05 in / 550 × 300 × 230 mm**

Accessories : **1 × 2.8 in Display Screen Touch Control , 1 × Display Screen Bracket**

1 × Display Screen Cable (1.5 m) , 10 × Screws

1 × Charger , 1 × Charger DC Connection Cable (0.8 m)

1 × Charger AC Power Cord (2 m) , 1 × User Manual

2 × Positive and Negative Terminal Covers

A comprehensive overview of the battery's technical specifications and included accessories.

Feature	Detail
Model Number	HD-51.2-100-TK-C
Battery Pack Voltage	51.2VDC
Capacity	105Ah
Maximum Output Power	10240W

Feature	Detail
Continuous Discharge Current	200A
Maximum Discharge Current	400A (35S)
Peak Discharge Current	600A (3S)
Discharge Rate	2C
Main Material	Cold-rolled steel casing with baked paint
Waterproof Rating	IP65
Net Weight	105.6 lbs / 47.9 kg
Product Dimensions (L x W x H)	21.65 x 11.81 x 9.05 in / 550 x 300 x 230 mm
Charger Output	58.4VDC 20A
Charging Time	Approx. 5 hours
Cycle Life	4000+ cycles
Interaction Method	Bluetooth + 2.8 in Touch Screen

9. WARRANTY & SUPPORT

The VEVOR 48V 105Ah Golf Cart Lithium Battery typically comes with a 12-month warranty from the date of purchase. Please retain your proof of purchase for warranty claims.

For technical assistance, troubleshooting, or warranty inquiries, please contact VEVOR customer support through their official channels. Refer to the contact information provided with your product packaging or on the VEVOR official website.