



# **27Ah 60.8V KATBATT Tricycle LiFePO4 Lithium Battery Manual**



## Product Overview

The **KATBATT 27Ah 60.8V LiFePO<sub>4</sub> Tricycle Battery** is a premium, locally manufactured lithium battery designed specifically for **TailG electric tricycles** and similar electric farming or utility vehicles.

Built using **LiFePO<sub>4</sub> (Lithium Iron Phosphate) cell chemistry**, this battery offers exceptional safety, reliability, and long cycle life. LiFePO<sub>4</sub> is globally recognised as one of the safest lithium battery chemistries currently in use.

Under optimal conditions—unloaded, on asphalt, using standard narrow TailG tyres—this battery delivers a range of **up to 25 km per charge**.

Each battery is supplied with a **custom mounting bracket**, allowing **two batteries to be securely installed** inside the tricycle battery compartment when additional capacity is required.

This model is **1C rated** and is widely used in **TailG, ELEKSA, and other electric farming vehicles across South Africa**.

### Important Usage Requirement

When used in:

- Quad-type vehicles, or
- Tricycles fitted with **non-standard wide tyres**

**A minimum of two 27Ah batteries (in series) or a 60Ah 60V battery must be used.**

## Package

The KATBATT 27Ah 60.8V LiFePO4 battery for Tricycles package includes:

1. 1 x 27Ah 60.8V Nominal LiFePO4 Lithium Battery
2. 1 x Bracket to fit your battery into the battery compartment

## Battery Details

Specification	Value
<b>Nominal Voltage</b>	60.8 V
<b>Bulk &amp; Absorption Voltage</b>	68.5 V
<b>Float Voltage</b>	66.5 V
<b>Low Voltage Cut-Off</b>	54 V
<b>Ingress Protection (IP Rating)</b>	IP52
<b>Operating Temperature Range</b>	0 °C to 40 °C
<b>Weight</b>	20 kg
<b>Dimensions (L × W × H)</b>	47 × 13 × 20 cm
<b>Cycle Life</b>	±3 000 cycles @ 80% DoD
<b>Continuous Discharge Rating</b>	1C
<b>Pulse Discharge Capability</b>	Cells capable of up to 3C
<b>BMS Maximum Current</b>	60 A
<b>Typical Driving Range</b>	Up to 25 km on tar road (unloaded, standard tyres)
<b>Warranty</b>	5-year limited warranty

## Installation Instructions

1. Clearly mark all cables before removing the old batteries, especially the main positive (+) and negative (–) cables.
2. Remove the old batteries and thoroughly clean the battery compartment to eliminate any acid residue and corrosion.
3. Insert the 27Ah 60.8V KATBATT LiFePO<sub>4</sub> battery into the battery compartment.
4. Mark the positions where the mounting bracket needs to be secured.
5. Drill the mounting holes using a **6.5 mm drill bit**.
6. Secure the battery firmly to the base of the compartment using the supplied mounting bracket.
7. Remove the terminal covers, nuts, spring washers, and flat washers from the battery terminals.
8. Connect the main negative cable and the charge port to the **black (–) terminal**, then refit the flat washer, spring washer, and nut.
9. Connect the main positive cable and the charge port to the **red (+) terminal**, then refit the flat washer, spring washer, and nut.
10. Confirm correct charge plug polarity: **positive to positive (+ to +)** and **negative to negative (– to –)**.
11. Torque the **M6 terminal nuts to 5 Nm only**. Do not overtighten.
12. Test the tricycle and confirm correct operation before returning it to service.

## Charging

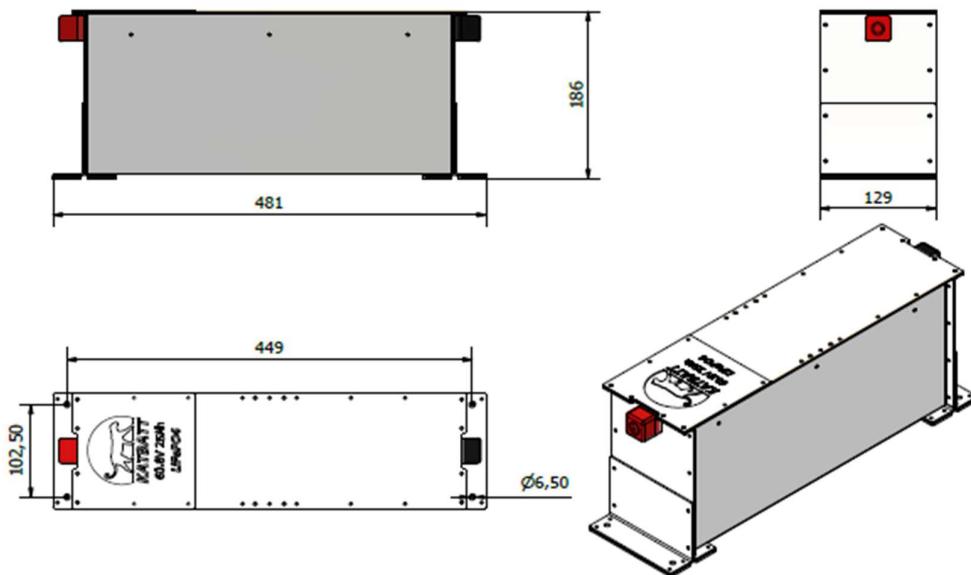
It is important to use the correct Lithium charger to charge your new Tricycle Lithium battery. KATBATT's 4.2A 60.8V/ 8A 60.8V lithium battery charger charges your battery to 68.5V to reset the SOC and fully charge your battery.

**IMPORTANT NOTE:** Your **charge plug fitted to your Tricycle** must be connected to your new lithium battery **directly**, not through a relay or other disconnecting device as these devices were relevant for lead acid and is not to be used between your lithium charger and lithium battery. A 30A fuse is suggested.

## Using Lead-Acid Charger on you Lithium Battery results

- Battery SOC will not reach 100% and will keep decreasing as the Lead Acid chargers does not charge to 68.5V to fully charge and reset the battery SOC to 100%.
- Battery cells will not reach the balancing voltage to allow for cell balancing.

Using an unsupported charger that does not comply with the specifications will void your battery warranty.



## Troubleshooting

Below are listed a couple of occurrences that can help you to resolve some of the most common problems.

Error - Occurrence	Cause	Solution
Does not want to charge.	Charge cables are not directly connected from the female charge plug to the battery terminals. The inside charging plug has burnt.	Connect both the <b>Positive (+)</b> and <b>Negative (-)</b> charge cables <b>directly</b> from the female charge port to your Lithium battery terminals (with a 30 A inline fuse).
Vehicle does not drive far enough	Non-standard wide tyres are being used.	Change tyres to standard tyres or add an additional battery in series.
Charger is not charging battery correctly.	Charge voltage is not reaching the full voltage.	Measure the terminals of the battery with the charger plugged in and plugged out with a multi-meter. Replace the charger Set Voltage

If the above does not solve your problem, please contact us so we can provide further technical assistance.

### Contact us

[www.katbatt.co.za](http://www.katbatt.co.za)

[info@katbatt.co.za](mailto:info@katbatt.co.za)

Office and WhatsApp 078 959 0500



Website QR Code



Scan this QR Code to see our YouTube video about how to instal the battery

## 5-Year Drive-In Warranty

This warranty is valid for **5 years from the date of purchase** and covers defects in materials or workmanship under normal use.

### COVERED BATTERY MODELS

This warranty applies to this battery model.

### WARRANTY TERMS

KATBATT warrants that its **LiFePO4 battery ("Product")** will be free from defects in materials and workmanship under normal use and service for **5 years** from the purchase date.

- Replacement units may be **new, refurbished, or reconditioned**.
- The **customer or installer** is responsible for delivering the product to the **KATBATT factory** for inspection.
- **Goods in transit insurance** must be arranged by the customer or installer.

### DAMAGES AND INSPECTION

Please **inspect the battery upon receipt**. If it is:

- **Damaged**
- **Defective**
- **Incorrectly delivered**

Contact us **immediately** at [info@katbatt.co.za](mailto:info@katbatt.co.za). Include:

- A description of the issue
- **3 photos** from different angles showing the damage

### REFUND POLICY (TIME-BASED)

If the battery cannot be repaired or replaced during the warranty period, a **refund** may be offered, calculated by year of use:

Warranty Year	Refund Percentage
1–2 years	80%
2–3 years	60%
3–4 years	40%
4–5 years	20%
After 5 years	0%

#### Example:

If the purchase price was **R1000** and the battery fails in Year 2: **Refund = R1000 × 80% = R800**

#### Warranty Coverage

This warranty **includes**:

- Repair or replacement for defects due to **materials or workmanship**

This warranty **excludes**:

- Misuse, neglect, accidents, or **unauthorised repairs**

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- **Improper installation or maintenance**
- **Normal wear and tear**
- Batteries that have been **opened or tampered with**
- **Incidental or consequential damages**, such as loss of use or profits
- External damages and indentation
- Cell Voltage below **0.9V**. Client have left the battery discharged for to long

### CLAIM PROCESS

To initiate a warranty claim:

1. Contact the **retailer or KATBATT** directly
2. Provide:
  - **Proof of purchase**
  - Description of the issue
3. The battery will be assessed to determine if it qualifies for **repair or replacement**

### Out-of-Warranty Policy

If the battery is:

- **Damaged outside warranty terms**
- **Tampered with or opened**
- Or the damage was **not caused by the seller**

KATBATT may offer a **charged service**, which includes:

- Material costs
- Labour
- Transportation

### Refund Process

Once your returned product is received and inspected:

- We'll notify you about the **approval or rejection** of the refund
- If approved, your original payment method will be refunded within **10 business days**
- Please allow time for your **bank or credit card provider** to process the refund

### DISCLAIMER

KATBATT reserves the right to:

- **Determine the validity** of any warranty claim
- Request **additional documentation or information**

This warranty is **non-transferable** and is provided **in lieu of all other warranties**, express or implied, including but not limited to warranties of **merchantability or fitness for a particular purpose**.