PRODUCT DATASHEET

48V 30Ah Triangle E-BIKE BATTERY

Samsung INR21700-50G Cells · JBD Smart BMS

Rated 1,440Wh capacity. Built fresh to order and bench-tested before shipping.

DOCUMENT TYPE	Technical Specification & Product Data Sheet
BATTERY MODEL	BOOANT 48V 30Ah Triangle eBike Battery

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1. Overview

A 48V 30Ah (1,440Wh) triangle lithium-ion battery built with 78 genuine Samsung INR21700-50G cells in a 13S6P configuration, for high-power hub and mid-drive e-bike conversion kits up to 2,000W+. The cells sit in a sealed PVC triangle pack managed by a JBD smart Bluetooth BMS, and the pack ships with a 54.6V 5A smart aluminum fast charger. Every pack is built fresh to order and bench-tested before shipping.

2. Key Features

- **Genuine Samsung 50G cells** — 78 authentic Samsung INR21700-50G cells (13S6P) deliver a rated 1,440Wh, with stable voltage under load and no rewrapped or B-grade cells.
- **JBD smart Bluetooth BMS** — 30A (90A peak), 40A (120A peak) or 60A (180A peak) options matched to motors up to 1,000W, 1,500W or 2,000W+, with cell balancing and full protection monitoring via the app.
- **Balanced triangle fit** — The pack centers about 5.5 kg (12.13 lb) inside the front frame triangle, with internal epoxy board shielding, heavy-duty blue PVC wrap and top silicone sealant.
- **54.6V 5A fast charger included** — A full 0 to 100% charge takes approximately 7 hours, at 0.83A per cell across the 6 parallel groups, from an aluminum fan-cooled charger with dual-fuse protection.
- **Connector of your choice** — XT60F/M, XT90F/M, Anderson SB50, QS8 plug or Wire only. Anderson SB50 is rated 50A, so for the 60A tier choose XT90F/M or QS8 plug.
- **Bench-tested before shipping** — Every pack runs a full charge and discharge test before it leaves, and the test report is available on request. Covered by a 2-year warranty.

3. Technical Specifications

Nominal voltage	48V
Rated capacity	30Ah (1,440Wh)
Cell type & configuration	Samsung INR21700-50G, 78 cells, 13S6P
BMS	JBD smart BMS with Bluetooth: 30A (90A peak) / 40A (120A peak) / 60A (180A peak)
Motor compatibility	Up to 1,000W (30A BMS) / 1,500W (40A BMS) / 2,000W+ (60A BMS)
Full-charge voltage	54.6V
Discharge cut-off voltage	39.0V
Charger	54.6V 5A, aluminum body, fan-cooled, dual-fuse, included
Charge time	Approx. 7 hours (0 to 100%)
Dimensions	265 x 220 x 190 mm (bevels 90 x 70 mm, thickness 80 mm)
Weight	Approx. 5.5 kg (12.13 lb)
Discharge connectors	XT60F/M / XT90F/M / Anderson SB50 / QS8 plug / Wire only
App	JBD app (XiaoxiangBMS), iOS & Android
Enclosure	Heavy-duty blue PVC heat-shrink wrap, epoxy board cage, top silicone sealant
Operating temperature	Charge: 0 to 45°C / Discharge: -20 to 60°C

Cycle life	800+ cycles at 80% DOD

4. Smart BMS & Bluetooth App

The integrated JBD programmable Bluetooth BMS connects wirelessly to iOS and Android apps. It delivers live millivolt monitoring across each cell bank, dual-probe temperature tracking, accurate remaining amp-hour calculations, and one-tap remote power shutoff. It protects the pack against over-charging, over-discharging, over-current, short circuits and over-temperature, with automatic cell balancing.

5. Charging

Charge only with the included 54.6V 5A charger, an aluminum-body unit with a built-in cooling fan and dual-fuse safety. The LED shows red while charging (or if a fault is detected) and green when fully charged. A full charge from near empty (39.0V) to full (54.6V) takes approximately 7 hours. At 5A across 6 parallel groups, each cell charges at about 0.83A, well within the Samsung standard charging range.

6. Enclosure & Fitment

Check your frame triangle against the pack outline before ordering: 265 x 220 x 190 mm, with bevels 90 x 70 mm and thickness 80 mm. Every pack is hand-built, so leave a few millimeters of clearance. The pack features an internal epoxy board cage, a heavy-duty PVC heat-shrink outer wrap, and top waterproof silicone sealant to block wet road splash and light rain. No shrink-wrapped pack is submersible. For heavy downpours or muddy trail riding, placing it inside a water-resistant triangle frame bag is recommended.

7. What's Included

1 x 48V 30Ah triangle lithium-ion battery pack (built-in JBD Bluetooth BMS), 1 x 54.6V 5A smart fast charger (aluminum body with built-in cooling fan), 1 x AC power cable (plug matched to your country), 1 x pre-soldered discharge connector set (matching male and female pair), 1 x set of heavy-duty frame mounting straps, and 1 x user manual and Bluetooth app quickstart guide. The pack is built fresh to order for your selection.

8. Warranty & Support

Covered by the BOOANT 2-year warranty (24 months or 600 cycles to 70% capacity retention, whichever comes first, per the BOOANT warranty policy). Questions about this product: support@booant.com.

Specifications are taken from the product data for this model. BOOANT packs are built to order; if your setup needs a different connector or BMS rating, select it on the product page or contact us before ordering.