



PRODUCT DATASHEET

52V 20Ah Triangle E-BIKE BATTERY

Samsung INR21700-50G Cells · JBD Smart BMS

Rated 1,040Wh capacity. Built fresh to order and bench-tested before shipping.

DOCUMENT TYPE Technical Specification & Product Data Sheet

BATTERY MODEL BOOANT 52V 20Ah Triangle eBike Battery

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1. Overview

A 52V 20Ah (1,040Wh) triangle lithium-ion battery built with 56 genuine Samsung INR21700-50G cells in a 14S4P configuration, for high-performance e-bikes, mid-drive systems and custom conversion builds 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 58.8V 5A smart fast charger and a strapped triangle bag. Every pack is built fresh to order and bench-tested before shipping.

2. Key Features

- **Genuine Samsung 50G cells** — 56 authentic Samsung INR21700-50G cells (14S4P) deliver a rated 1,040Wh, with stable voltage under load and no rewrapped or B-grade cells.
- **JBD smart Bluetooth BMS** — 30A (90A peak), 40A (120A peak) or 50A (150A peak) options matched to motors up to 1,000W, 1,500W or 2,000W, with cell balancing and full protection monitoring via the app.
- **Compact triangle pack** — The sealed PVC pack measures 225 x 140 x 180 mm in side profile with 70 mm thickness and weighs about 4.5 kg (9.92 lb), and a strapped triangle bag is included.
- **58.8V 5A fast charger included** — A full 0 to 100% charge takes approximately 5 hours, at 1.25A per cell across the 4 parallel groups, from a CC/CV charger with active fan cooling.
- **Connector of your choice** — QS8 plug, Anderson SB50, XT60F/M, XT90F/M or Wire only, pre-wired on a 10AWG silicone lead, matched to your controller.
- **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	52V
Rated capacity	20Ah (1,040Wh)
Cell type & configuration	Samsung INR21700-50G, 56 cells, 14S4P
BMS	JBD smart BMS with Bluetooth: 30A (90A peak) / 40A (120A peak) / 50A (150A peak)
Motor compatibility	Up to 1,000W (30A BMS) / 1,500W (40A BMS) / 2,000W (50A BMS)
Full-charge voltage	58.8V
Charger	58.8V 5A, CC/CV, fan-cooled, included
Charge time	Approx. 5 hours (0 to 100%)
Dimensions	Sides: 225 x 140 x 180 mm, thickness 70 mm
Weight	Approx. 4.5 kg (9.92 lb)
Discharge connectors	QS8 plug / Anderson SB50 / XT60F/M / XT90F/M / Wire only (10AWG silicone lead)
App	JBD app (XiaoxiangBMS), iOS & Android
Enclosure	High-density PVC wrap, strapped triangle bag included
Cycle life	Up to 1,000 full charge/discharge cycles

4. Smart BMS & Bluetooth App

The integrated JBD Bluetooth smart BMS protects the pack against overcharge, over-discharge, overcurrent, short circuit and excessive temperature. Battery voltage, cell status and temperature can be monitored in real time through a compatible mobile app (Xiaoxiang App, iOS and Android), with a remote discharge on/off switch for anti-theft parking.

5. Charging

Charge only with the included 58.8V 5A charger, a CC/CV unit with active fan cooling. The LED shows solid red while charging and solid green when fully charged and cell balancing is finished, or when the charger is plugged into AC power without a battery connected (standby). A full charge takes approximately 5 hours. At 5A across 4 parallel groups, each cell charges at about 1.25A.

6. Enclosure & Fitment

Check your frame triangle against the pack profile before ordering: sides 225 x 140 x 180 mm, thickness 70 mm. Every pack is hand-built, so leave a few millimeters of clearance. The high-density PVC wrap plus strapped triangle bag keeps weight centered in the frame for balanced handling. The pack is not submersible; use the triangle bag for wet riding.

7. What's Included

Battery pack with your selected BMS rating and discharge connector, 58.8V 5A smart fast charger, AC power cable (plug matched to your country), strapped triangle bag, discharge lead with your selected connector pre-wired (10AWG silicone wire, 30 cm standard, 50 cm or 100 cm extensions available), and an app download QR code inside the package. 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. Discharge cut-off voltage and operating temperature are not listed on this product page, so they are omitted here rather than estimated. 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.