PRODUCT DATASHEET

36V 40Ah Metal Case
E-BIKE BATTERY

Samsung INR21700-50G Cells · JBD Smart BMS

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

DOCUMENT TYPE	Technical Specification & Product Data Sheet
BATTERY MODEL	BOOANT 36V 40Ah Metal Case eBike Battery

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1. Overview

A 36V 40Ah (1,440Wh) lithium-ion battery built with 80 genuine Samsung INR21700-50G cells in a 10S8P configuration, for 250W to 1,500W e-bikes, cargo rigs and DIY conversion kits. The pack sits in a sealed metal case with a digital top display, managed by a JBD smart Bluetooth BMS, and ships with a 42V 5A fast charger. Every pack is built fresh to order and bench-tested before shipping.

2. Key Features

- **Genuine Samsung 50G cells** — 80 authentic Samsung INR21700-50G cells (10S8P) deliver a true 1,440Wh, with the parallel layout keeping per-cell discharge low for minimal voltage sag.
- **JBD smart Bluetooth BMS** — 30A or 50A options matched to motors up to 1,000W or 1,500W, with cell balancing and full protection monitoring via the JBD app.
- **Digital top display** — The integrated display shows pack voltage, battery percentage, operating temperature and charge status at a glance.
- **Sealed metal case** — Coated sheet-metal enclosure with internal EVA shock-absorbing foam and waterproof potting against vibration, dust and road spray.
- **42V 5A fast charger included** — A full 0 to 100% charge takes approximately 9 hours, at a gentle 0.62A per cell group.
- **Bench-tested before shipping** — Every pack runs a full charge and discharge test before it leaves, and is covered by a 2-year warranty.

3. Technical Specifications

Nominal voltage	36V
Rated capacity	40Ah (1,440Wh)
Cell type & configuration	Samsung INR21700-50G, 80 cells, 10S8P
BMS	JBD smart BMS with Bluetooth: 30A (90A peak) / 50A (150A peak)
Motor compatibility	Up to 1,000W (30A BMS) / 1,500W (50A BMS)
Full-charge voltage	42.0V
Discharge cut-off voltage	30.0V
Charger	42V 5A, metal case, fan-cooled, included
Charge time	Approx. 9 hours (0 to 100%)
Dimensions	300 × 190 × 90 mm (11.8 × 7.5 × 3.5 in)
Weight	Approx. 8.0 kg (17.6 lb)
Discharge connectors	XT60 / XT90 / Anderson / Wire only
Display	Digital top display: voltage, percentage, temperature, charge status
App	JBD app (XiaoxiangBMS), iOS & Android
Enclosure	Coated sheet-metal case, waterproof potting, internal EVA shock-absorbing foam

Operating temperature	Charge: 0 to 45°C / Discharge: -20 to 60°C

4. Smart BMS & Bluetooth App

The JBD smart BMS monitors voltage, current and temperature in real time and protects the pack against over-charging, over-discharging, over-current and short circuits, with automatic cell balancing to keep the 10 cell groups even. Through the JBD app (XiaoxiangBMS) you can view individual cell group voltages, cycle count and protection history, and remotely switch charge and discharge on or off. The pack also works fully on its own: the top display covers the key figures without the app.

5. Charging

Charge only with the included 42V 5A charger, a fan-cooled metal-case unit running CC/CV stages. A full charge from near empty (30.0V) to full (42.0V) takes approximately 9 hours. At 5A across 8 parallel groups, each cell charges at about 0.62A, a gentle rate that avoids heat stress and protects cycle life.

6. Enclosure & Fitment

Check the 300 × 190 × 90 mm case against your battery tray or frame space before ordering, and leave 5 to 10 mm of clearance: the rigid metal shell will not flex or squeeze down. The sealed construction handles wet roads, light rain and trail puddles. Never submerge the pack or clean it with a high-pressure washer.

7. What's Included

Battery pack with your selected BMS rating and discharge connector, 42V 5A smart fast charger, AC power cable, heavy-duty 10AWG discharge lead, and a fireproof battery safety storage bag. 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.