PRODUCT DATASHEET

48V 60Ah PVC LITHIUM BATTERY

Samsung INR21700-50G Cells · JBD Smart BMS

Rated 2,880Wh capacity. Built fresh to order and bench-tested before shipping.

DOCUMENT TYPE	Technical Specification & Product Data Sheet
BATTERY MODEL	BOOANT 48V 60Ah PVC Lithium Battery

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1. Overview

A 48V 60Ah (2,880Wh) lithium-ion battery built with 156 genuine Samsung INR21700-50G cells in a 13S12P configuration, for robots, AGVs, golf carts, and energy storage. The pack sits in a PVC heat-shrink case with a structural epoxy board, managed by a JBD smart Bluetooth BMS, and ships with a 54.6V 10A fast charger. Every pack is built fresh to order and bench-tested before shipping.

2. Key Features

- **Genuine Samsung 50G cells** — 156 authentic Samsung INR21700-50G cells (13S12P) deliver a rated 2,880Wh, with the 12-parallel layout keeping per-cell current low for stable voltage under hard loads.
- **JBD smart Bluetooth BMS** — 60A, 80A, 100A or 120A options matched to motors up to 2,500W, 3,500W, 4,000W or 5,000W, with cell balancing and full protection monitoring via the app.
- **Flat PVC case** — A flat PVC heat-shrink case with a structural epoxy board and water-resistant coating on the top and bottom, sized about 300 x 175 x 150 mm to fit equipment bays and storage racks.
- **Fireproof safety bag included** — A fireproof safety bag ships with every pack for safer charging and storage, helping contain flames and heat if a cell ever fails.
- **54.6V 10A fast charger included** — A full 0 to 100% charge takes approximately 7 hours, at a gentle 0.83A per cell group.
- **Bench-tested before shipping** — Every pack runs a full charge and discharge test before it leaves. A production unit of this model measured 59.38Ah, 99.0% of rated capacity. Covered by a 2-year warranty.

3. Technical Specifications

Nominal voltage	48V
Rated capacity	60Ah (2,880Wh)
Cell type & configuration	Samsung INR21700-50G, 156 cells, 13S12P
BMS	JBD smart BMS with Bluetooth: 60A (180A peak) / 80A (240A peak) / 100A (300A peak) / 120A (360A peak)
Motor compatibility	Up to 2,500W (60A BMS) / 3,500W (80A BMS) / 4,000W (100A BMS) / 5,000W (120A BMS)
Full-charge voltage	54.6V
Discharge cut-off voltage	39.0V
Charger	54.6V 10A, aluminum case, fan-cooled, included
Charge time	Approx. 7 hours (0 to 100%)
Dimensions	300 x 175 x 150 mm (11.81 x 6.89 x 5.91 in)
Weight	Approx. 12.5 kg (27.56 lb)
Discharge connectors	QS10 / QS8 / Anderson SB120 / XT90F/M / Wire only
App	JBD app (XiaoxiangBMS), iOS & Android
Enclosure	PVC heat-shrink wrap, structural epoxy board, water-resistant coating (top and bottom)

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 13 cell groups even. Through the JBD app (XiaoxiangBMS) you can view individual cell group voltages, balance status, cycle count and protection history, and remotely switch charge and discharge on or off. The pack has no physical power switch: the app controls discharge.

5. Charging

Charge only with the included 54.6V 10A charger, a fan-cooled aluminum-case unit running CC/CV stages and protected by an external replaceable 250V / 20A fuse. The LED shows red while charging and green when fully charged. A full charge from near empty (39.0V) to full (54.6V) takes approximately 7 hours; a 20% to 80% top-up takes around 4 hours. At 10A across 12 parallel groups, each cell charges at about 0.83A, a gentle rate that avoids heat stress and protects cycle life.

6. Enclosure & Fitment

Check the 300 x 175 x 150 mm case against your equipment bay or storage space before ordering, and leave 5 to 10 mm of clearance. The PVC heat-shrink wrap with a water-resistant coating on the top and bottom handles damp conditions and light splashes. 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, 54.6V 10A fast charger, AC power cable, output lead with your selected connector (QS10 / QS8 / Anderson SB120 / XT90F/M), a fireproof safety bag, and an app QR code card. 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.