



52V 20AH TRIANGLE EBIKE BATTERY

| JBD Smart Bluetooth BMS

1040Wh

TOTAL CAPACITY

52V

NOMINAL VOLTAGE

50G

PREMIUM CELL TIER

01 / PRODUCT OVERVIEW

FLAGSHIP FORM FACTOR

Engineering excellence meets custom spatial layout.

The BOOANT 52V 20Ah Triangle ebike battery pack is purposefully engineered for riders seeking maximum range, flawless frame optimization, and premium continuous power output. Utilizing a classic frame-integrated triangle shape, it fits directly into the central geometry of standard ebike frames, lowering the center of gravity and significantly improving stability and handling.

KEY PACKAGE BENEFITS

Optimized Triangle geometry for minimal wind resistance and ideal weight distribution.

Genuine Tier-1 Samsung 21700 50G cells ensuring longevity and structural reliability.

Robust external casing designed to resist everyday vibrations and minor impacts.

Equipped with ultra-premium genuine Samsung 21700 50G cells, this battery configuration maximizes energy density to deliver an astonishing 1040Wh of power output within a remarkably compact envelope.



02 / CELL & BMS INTELLIGENCE

SAMSUNG 21700 50G

Uncompromising Cell Engineering and Thermal Regulation

Every single core variant of the BOOANT flagship package relies solely on factory-fresh Samsung 21700 50G power cells. Unlike standard generic options, the 50G tier offers an industry-leading capacity rating combined with minimal internal resistance fluctuations over continuous heavy cycling parameters.

SMART BMS FUNCTIONAL SAFEGUARDS

An intelligent Battery Management System (BMS) controls the vital states of the entire pack. By monitoring voltage spreads across individual parallel strings, it provides continuous protective mitigation against common risks:



Protection Vector	Operational Safe-Action
Over-Current Cutoff	Instantaneous terminal isolation during massive demand surges.
Over-Charge Prevention	Individual cell string monitoring blocks incoming excess voltage.
Thermal Management	BMS sensors actively halt throughput if internal temperatures cross critical thresholds.
Cell Auto-Balancing	Micro-bleed resistors discharge higher strings to maximize useful pack amp-hours.

03 / SMART APP INTEGRATION

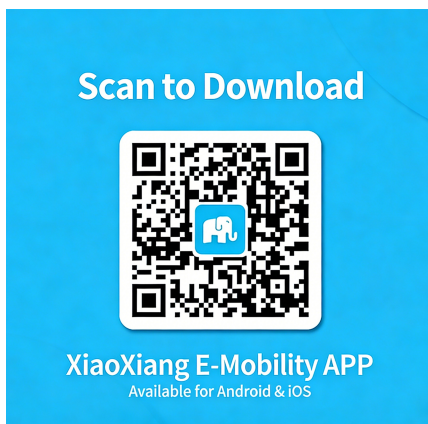
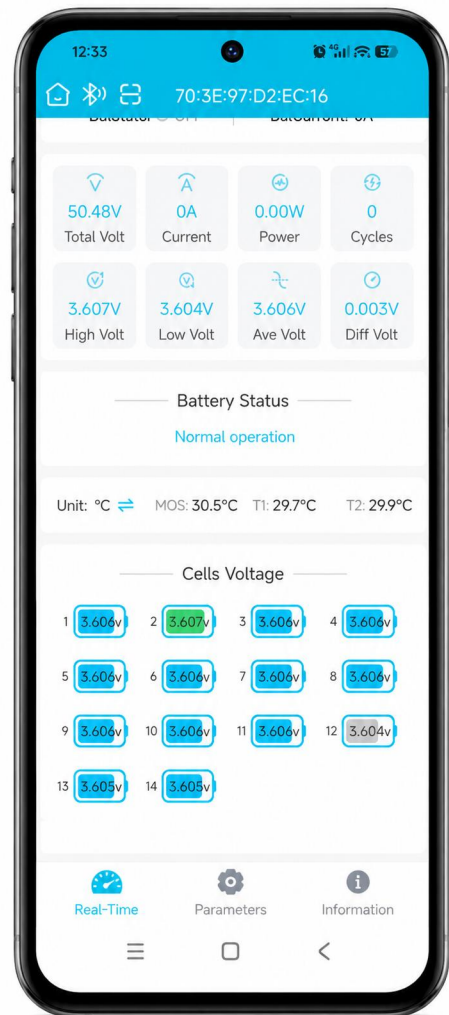
XIAOXIANG E-MOBILITY ECOSYSTEM

Real-time diagnostics and telemetry configuration straight from your pocket.

Equipped with a low-energy Bluetooth transceiver module embedded directly into the JBD BMS motherboard framework, the BOOANT battery transmits comprehensive physical performance parameters continuously to iOS and Android applications.

ACCESSIBLE LIVE METRICS

- **State of Charge (SOC):** Highly precise remaining percentage indicators mapped dynamically through active voltage curves.
- **Individual String Voltage:** Inspect all series blocks simultaneously to monitor ongoing health matrixes.
- **Temperature Dispersal:** Internal thermal probe reporting prevents premature load degradation.
- **Cycle Counting:** Track long-term usage history to accurately gauge expected residual component lifespans.



SCAN THE ACCORDING QR CODE TO ACCESS THE APPLICATION

04 / DEDICATED CHARGING SYSTEM

The long-term performance profile of premium lithium-ion configurations is intrinsically tied to correct voltage charging curve execution. Every BOOANT pack includes a heavy-duty, aluminum-cased smart charger utilizing optimized constant-current/constant-voltage (CC/CV) control logic.



HEAVY-DUTY INTERNAL ENGINEERING

Featuring over-dimensioned solid-state capacitors and integrated inductive copper filtering lines, the internal power delivery network transforms standard AC fluctuations into clean, low-ripple DC current to protect internal cell chemistry.



ALLOY EXTERNAL HEAT DISSIPATION

The rugged black anodized aluminum structural shell is engineered with an aggressive fin topology to maximize surface area contact with air currents. An automated low-noise active cooling fan engages immediately under load parameters to ensure operational temperatures stay minimal.



05 / COMPLETE TECHNICAL DATA

The parameter matrix below dictates the strict operational limits and build profiles of the 52V Triangle 20Ah framework. Values must be maintained exactly to preserve original factory lifetime validation parameters.

Electrical & Mechanical Parameter Values	
Battery Model Reference	BOOANT 52V 20Ah Triangle Flagship Edition
Cell Manufacturer / Configuration Type	Samsung 21700 50G Core Lithium-Ion Cells
Nominal Pack Voltage	52.0V
Total Rated Pack Capacity	20.0Ah (Ampere Hours)
Stored Total Energy Output	1040Wh (Watt Hours)
Maximum Full Charge Voltage	58.8V ($\pm 0.05V$ margin range)
Discharge Cut-Off Operational Limit	42.0V
Standard Power Charger Current	58.8V 5.0A Smart Charging Output
Continuous Working Load Rating	30A to 50A (Subject to custom configuration limits)
Integrated Structural Form Factor	Central Triangle Frame Configuration
Primary Main Interface Terminals	Genuine High-Current XT60 / XT90 Connectors Included

THANK YOU

FOR CHOOSING ENGINEERING EXCELLENCE

BOOANT is fully dedicated to expanding the horizons of global electric micro-mobility networks. Our strict quality guidelines ensure premium safety profiles, extended life cycles, and predictable real-world range capability.

TECHNICAL SUPPORT & INQUIRIES

Official Portal: <https://booant.com>

Product Base Registry: 52V-20Ah-Triangle-Samsung-21700-50G