



PRODUCT DATASHEET

52V 30Ah E-Bike Lithium-Ion Battery Pack

Engineered for maximum range and reliability, this 52V 30Ah battery pack combines premium Samsung 21700 cells, intelligent Bluetooth battery management, and a reinforced PVC enclosure for demanding riding conditions.

PREMIUM SAMSUNG CELLS
JBD SMART BLUETOOTH BMS
1560Wh HIGH ENERGY OUTPUT
BUILT FOR LONG-RANGE RIDING

01 / PRODUCT OVERVIEW & INDUSTRIAL DESIGN

The BOOANT 52V 30Ah Lithium-ion battery pack represents the pinnacle of custom e-bike power systems. Explicitly optimized for integration within the primary triangle area of electric bicycles, this system delivers an exceptional balance of energy density, computational safety, and mechanical flexibility.

Key Structural Attributes

- **Premium PVC Insulation Wrap:** Designed without heavy metal outer casing to optimize total vehicle weight distribution and ensure premium fitment into tight triangle frames.
- **10AWG Pure Silicone Wiring:** Heavy-duty, high-temperature silicone cables are standard across all discharge paths, minimizing voltage drops and managing thermal stress effectively under peak loads.
- **Genuine Cell Chemistry:** Built entirely utilizing premium original Samsung 21700 50G lithium cells to guarantee long-cycle longevity and flawless cell consistency.



02 / COMPREHENSIVE TECHNICAL SPECIFICATIONS

Every electrical and structural parameter listed below represents confirmed laboratory and operational metrics under the BOOANT V7 engineering directive. All standard units are listed alongside imperial variants where appropriate.

PARAMETER	SPECIFICATION VALUE / METRIC
Nominal Voltage	52.0 V
Nominal Capacity	30.0 Ah (1560 Wh)
Core Cell Configuration	Premium Samsung INR21700 - 50G
Casing / Enclosure Material	High-Density Industrial PVC Protective Film Wrap
Physical Dimensions	Custom Triangle Profile — Optimized for Standard E-Bike Frames <i>Dimensions: 325mm x 155mm x 75mm (12.8in x 6.1in x 2.95in)</i>
Total Battery Weight	Approx. 6.5 kg (14.3 lbs)
Standard Discharge Current	30 A to 60 A Continuous
Peak Discharge Current	90 A to 180A Burst Mode (<10 seconds)
Wiring Harness	10AWG High-Temperature Flexible Silicone Cable
Standard Discharge Connector	XT90 High-Current Gold-Plated Connector



03 / JBD SMART BMS & MOBILE APP INTEGRATION

This battery pack is equipped with a state-of-the-art JBD Smart Battery Management System (BMS). Featuring native Bluetooth communication, it connects seamlessly to mobile devices for real-time monitoring and advanced parameters custom tuning.

XiaoXiang E-Mobility Application

Real-Time Telemetry Tracking

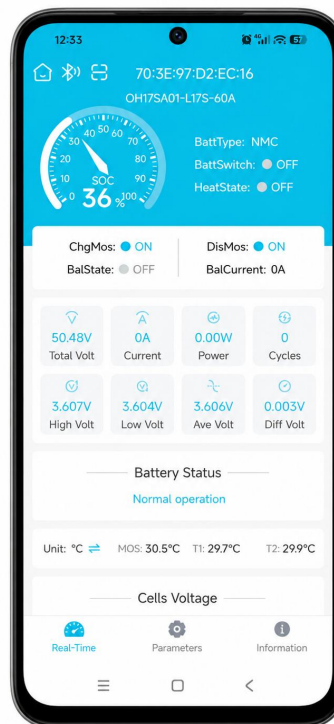
Monitor precise cell pack voltage, individual series voltage differentials, current flow, State of Charge (SOC), and temperature readings.

Programmable Safety Thresholds

Configure customized protection values for over-voltage, under-voltage, over-current, and strict thermal limits.

Intelligent Static Balancing

Integrated balance functionality automatically resolves micro-volt variances across the 21700 cells during static or resting cycles.



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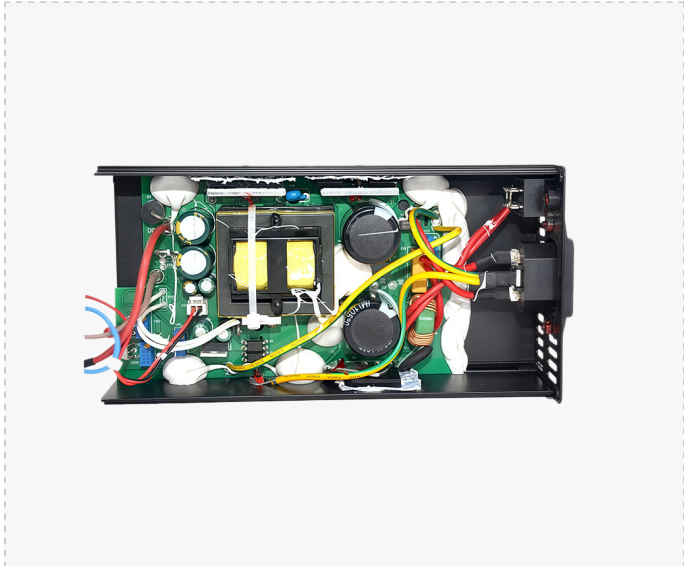


XiaoXiang E-Mobility APP
Available for Android & iOS

04 / ADVANCED DEDICATED SMART CHARGER

To maintain optimum battery chemistry and maximize long-term health, each unit is supplied with an industrial-grade smart charging system. The internal topology uses high-frequency switching technology paired with active air-cooling.

CHARGER CORE METRICS	
AC Input Voltage	100–240V AC (50/60Hz) Global Compatibility
DC Output Voltage	58.8 V Precision Regulated Cutoff
Charging Output Current	5.0 A Continuous Smart CC/ CV Profile
Enclosure Material	Extruded Aluminum Alloy Anodized Heat-Dissipating Shell
Safety Certifications	CE, FCC, RoHS, CB, GS Compliant



Dual LED Diagnostic Indicators

LED 1: Solid Red indicates primary AC Power Connected.

LED 2: Solid Red indicates Active CC/CV Charging Cycle; Solid Green indicates Full Charge / Automatic Cutoff triggered.



05 / INSTALLATION & STRICT SAFETY GUIDELINES

Operating powerful high-capacity lithium-ion infrastructure requires absolute adherence to structural and thermal protocols. Review the following system restrictions prior to installation.

Mechanical Mounting Principles

The battery pack must be securely fastened within the bicycle space using high-strength industrial Hook-and-Loop or structural straps. Ensure that the soft PVC skin is shielded from any sharp chassis bolts, hardware brackets, or raw frame welds. Avoid compression forces that exceed standard pack tolerance.

Electrical Safety Configurations

- **Short-Circuit Prohibitions:** Never link positive and negative contacts directly or via unrated tools. Always use the integrated XT90 connector.
- **Thermal Operations:** Do not charge the system if ambient parameters are below 0°C (32°F) or above 45°C (113°F). Operational discharge is rated from -20°C to 60°C.
- **Moisture Mitigation:** While the premium PVC film offers splash defense, this pack must be adequately protected inside a secondary weather-resistant frame bag to avoid prolonged rain or water submersion.

COMPLIANCE MARKINGS	TESTING FRAMEWORK STANDARD
Smart BMS Protection	Advanced protection against overcharge, over-discharge, overcurrent and short circuit
Dual Temperature Monitoring	Independent thermal sensors continuously monitor battery temperature
Charger Compatibility	Use only the specified lithium-ion charger with correct charging voltage





THANK YOU

For Choosing BOOANT Premium Power Infrastructure

BOOANT is dedicated to providing professional-grade, highly optimized engineering solutions for custom lithium battery packs worldwide. Our core markets span North America, Europe, and Canada.

Official Storefront: www.booant.com
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