



NEXT-GEN E-BICYCLE ENERGY SYSTEMS

52V 30AH TRIANGLE LITHIUM-ION BATTERY

Premium Samsung 21700 Cell Battery System

Battery Model: BT-5230-TR

Cell Configuration: Samsung 21700 50G Cells

Application: E-Bike • Cargo Bike • Electric Mobility

Edition: Product Datasheet

01. PRODUCT ARCHITECTURE & OVERVIEW

The BOOANT 52V 30Ah Triangle Lithium-Ion Battery combines genuine Samsung 21700 - 50G cells, intelligent Bluetooth BMS technology, and a space-efficient triangle design.

Engineered for high-performance e-bikes, it delivers extended range, reliable power output, advanced protection, and long-term durability.



KEY STRUCTURAL CHARACTERISTICS

Enclosure Material	High-Impact Grade, Fire-Retardant Thermoformed Insulated PVC Jacket
Form Factor Geometry	Frame Triangle Center Configuration (Optimized Center of Gravity)
Main Power Interface	Ultra-low resistance heavy gauge silicone wire with heavy-duty connectors

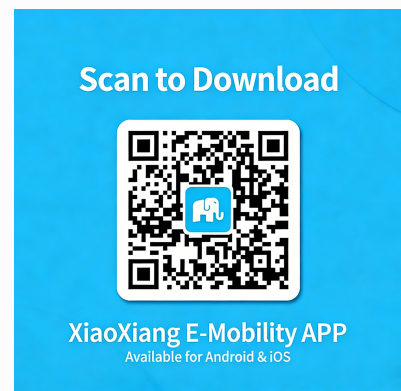
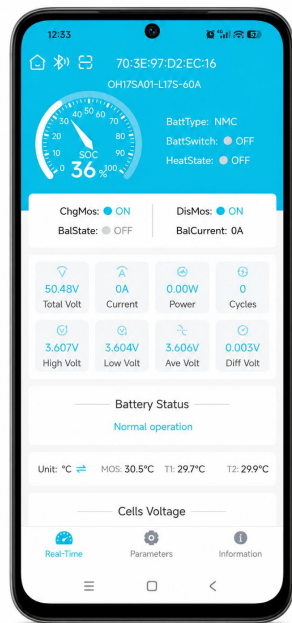
02. CORE ELECTRO-CHEMICAL & PHYSICAL SPECIFICATIONS

The following matrix compiles the definitive electrical, thermal, environmental, and physical dimensions of the 52V 30Ah Triangle Battery Pack. All figures are verified via controlled laboratory protocols at 25°C ambient temperature.

PARAMETER ITEM	TECHNICAL SPECIFIED RATING & VALUE
Nominal Voltage	52V
Nominal Capacity	30Ah (1560 Watt-hours / Wh)
Configuration Matrix	14S 6P / 14 Series (Genuine Samsung 21700-50G Cells Only)
Physical Dimensions	Approx. 11.8 x 7.1 x 3.54 x 9.65 x 2.36 x 2.95 in / 300 x 180 x 90 x 245 x 60 x 75mm
Net Module Weight	Approx.14.3 lbs / 6.5 kg
Charge Cut-off Voltage	58.8V
Discharge Cut-off Voltage	42.0V
Standard Continuous Discharge	30A / 50A / 60A
Peak Instantaneous Discharge	90A / 150A / 180A (< 3 seconds)
Standard Charging Current	5A
Operational Temperature Range	Charge: 0°C to 45°C Discharge: -20°C to 60°C
Cycle Life Performance	≥ 800 full cycles to 80% DOD (Capacity Retention)

04. XIAOXIANG E-MOBILITY BLUETOOTH TELEMETRY APP

The battery integrates a low-energy Bluetooth transceiver module that pairs directly with iOS and Android smartphones via the official XiaoXiang E-Mobility application. This grants operators, mechanics, and fleet managers access to granular, real-time diagnostic telemetry and comprehensive parameter settings.



Scan to Download
XiaoXiang E-Mobility APP
Available for iOS & Android Platforms

REAL-TIME TELEMETRY DATA

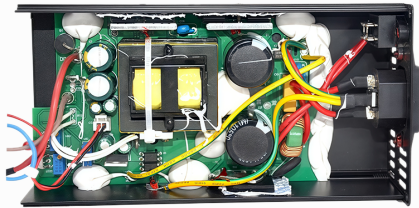
Access high/low cell voltage delta, overall temperature profiles across multi-point internal arrays, charge/discharge state indicators, and current cycle counts.

PROGRAMMABLE SAFETY CEILINGS

Authorized technicians can program high and low temperature protection parameters (Defaults: High Charge 65°C, High Discharge 75°C, Low Discharge -20°C).

05. PROFESSIONAL GRADE SMART CHARGER SYSTEM

To preserve cell structure and maximize lifetime pack capacity, the system comes standard with a heavy-duty, high-efficiency smart charger running an optimized CC/CV (Constant Current / Constant Voltage) charge algorithm. Encased in an extruded aluminum alloy enclosure, the charger is designed for superior thermal dissipation and durability.



CHARGER ENGINEERING PARAMETERS

AC Input Requirement	100–240VAC Global Autoswitching, 50/60Hz Frequency Profile
DC Output Profile	54.6V DC / 5A Constant Stable Target Charging Rate
Chassis Shell Material	Aluminum Alloy with High-Surface Radiation Ripples
Cooling Mechanism	Forced Internal Air Cooling via Temperature-Sensing Low-Noise Fan
LED State Diagnostics	LED1: Red (Power On Status) LED2: Red (Charging) / Green (Full Cutoff)
Safety Certifications	Fully Compliant with CE, FCC, RoHS, CB, and GS Global Safety Directives



THANK YOU

BOOANT ENERGY TECHNOLOGY CO., LTD.

Engineered for Performance. Built for Reliability.

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