



# 60V 20Ah HIGH-PERFORMANCE LITHIUM-ION BATTERY PACK

TECHNICAL SPECIFICATION & MANUAL

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**Application:** High-Power Electric Motorcycle & E-Bike  
**Cell Architecture:** Premium Samsung INR21700-50G  
**Enclosure:** Heavy-Duty Protective Metal Case

**BOOANT POWER SYSTEM CO.**

# 01. BATTERY PACK SYSTEM ARCHITECTURE

Designed for demanding electric motorcycle and premium e-bike platforms, this 60V 20Ah lithium-ion battery system delivers high continuous discharge currents and supreme reliability. The core architecture uses precision-matched high-capacity cells packed in an optimized matrix configuration to maintain thermal equilibrium and stable energy delivery under high torque loads.

Electrical Parameters	
Nominal Voltage / capacity	60V / 20Ah
Dimensions & Weight	290×195×95 mm ( 11.42×7.68×3.74in) ≈ 7.3kg (16.09l bs)
Total Energy	1200Wh
Cell Model	Premium Samsung INR21700-50G
Enclosure Design	Tech-Industrial Metal Case



## 02. HARDWARE BATTERY MANAGEMENT SYSTEM (BMS)

The battery protection layer is governed by a state-of-the-art solid-state JBD smart hardware BMS. This system continuously monitors each series cell group, performing precision real-time balancing and managing dynamic cut-offs to safeguard the cell chemistry from operating stress.



### BMS Threshold Thresholds

**Continuous Discharge** 30A - 40A Max

**Over-Current Cutoff** Dynamic Hardware Trip

**Over-Voltage Limit** 4.25V per cell

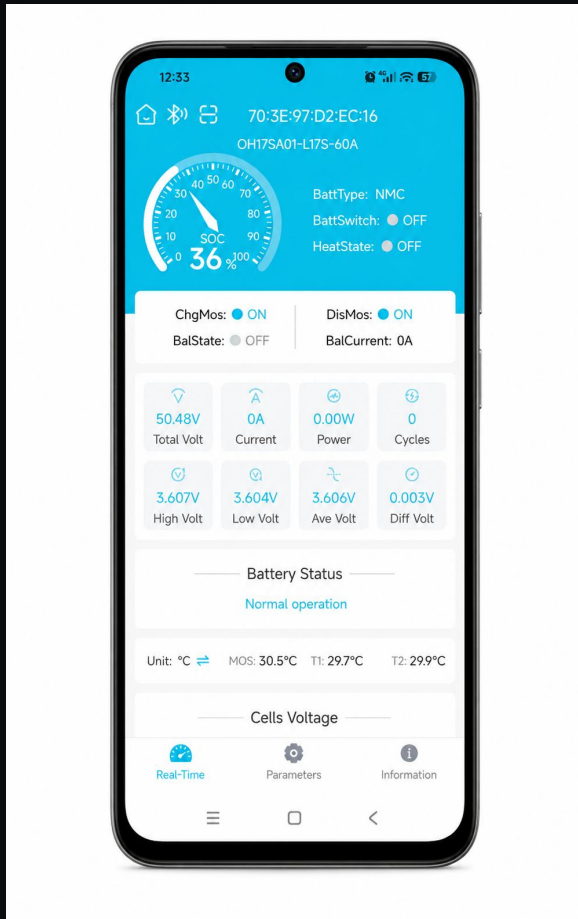
**Under-Voltage Limit** 2.5V per cell

**Balancing Current** Active Static Balancing

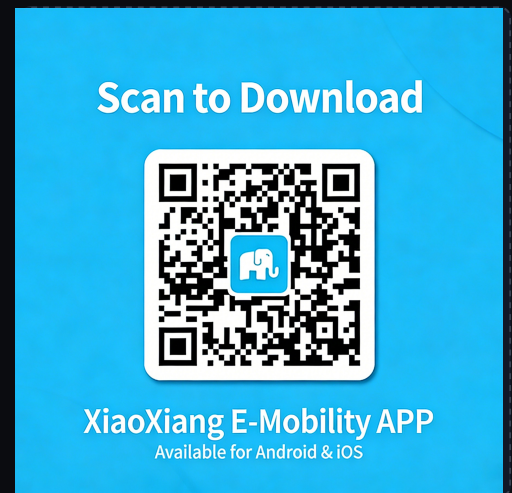
**Communication Link** Integrated Bluetooth UART

### 03. XIAOXIANG E-MOBILITY APP INTERFACE

Every active metric inside the pack is securely beamed directly to your smartphone via Bluetooth telemetry. Using the official XiaoXiang E-Mobility application, riders, field technicians, and engineers can instantly review cycle life, cell voltage matching grids, and change operational thresholds seamlessly.



**SCAN TO DOWNLOAD APP**



#### Compatible Platforms:

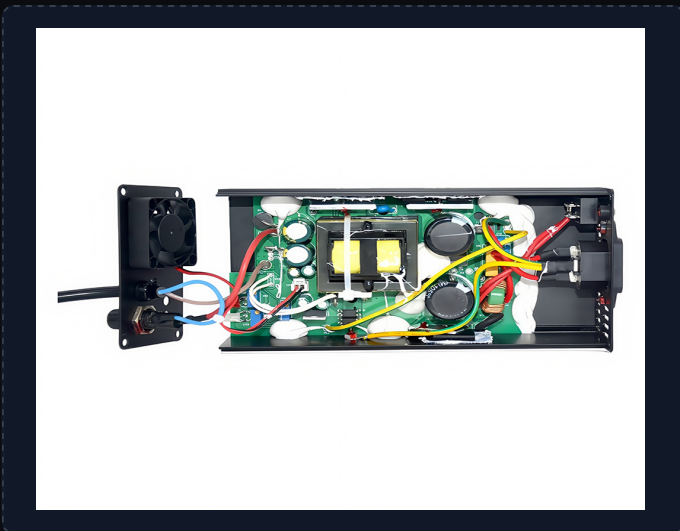
- Apple iOS 11.0 or higher
- Android 6.0 or higher with BLE

Provides full configuration access for discharge switches, and historical logs.

## 04. HEAVY-DUTY SMART CHARGING SYSTEM

Our intelligent CC/CV (Constant Current / Constant Voltage) dedicated aluminum-body charger delivers optimal charging performance while respecting cell chemistry longevity. Featuring dynamic heat dissipation design and an internal safety fuse cluster, it operates stably worldwide under wide-range utility grids.

Parameter	Specification Rating	Safety Protocols
AC Input Range	100V - 240V AC (Auto-Sensing)	Reverse Polarity Protection
DC Output Level	67.2V Constant Voltage MAX	Over-Voltage Failsafe Interlock
Charging Current	High-Output Fast Charge System	Over-Current Active Regulation
Efficiency Factor	> 88% at full operational load	Dual LED State Signalling Grid



## 05. COMPREHENSIVE TECHNICAL PARAMETERS

Engineering Category	Operational Parameter Matrix
Battery Type	Premium Lithium-Ion
Nominal Configuration	60V 20Ah   1200 Watt-Hours (Wh)
Charging Voltage Max	67.2V
Discharge Cut-off Limit	48.0V System Low Voltage Barrier
Standard Charge Profile	Constant Current / Constant Voltage (CC/CV)
Operational Temp (Charge)	32°F to 113°F (0°C to 45°C)
Operational Temp (Discharge)	-4°F to 140°F (-20°C to 60°C)
Cables / Connectivity	Heavy-Duty High-Current Pure Copper Silicon Leads
Standard Connectors	XT60 / XT90 high-temp molded gold-plated plugs
Customization Options	Tailored custom discharge plug configurations available upon request

**Compliance & Certification:** This system is strictly manufactured according to professional ISO standards. Built using premium industrial grade processes, featuring heavy-gauge pure copper internal wiring layout to guarantee safe operation across all high-drain vehicular operations.



PREMIUM ENERGY SOLUTIONS

## 06. SAFETY PROTOCOLS & MAINTENANCE

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- **Charging Protocol:** Always use the official certified smart charging unit provided with this system. Never leave charging systems unattended on combustible surfaces.
- **Environmental Storage:** Store the pack inside a cool, dry environment away from rain or direct high-temperature solar exposure. Maintain charging state at 40-60% during multi-month long-term seasonal storage cycles.
- **Structural Care:** Do not pierce, open, crush, or custom modify the laser-sealed structural metal protective case. Unauthorized mechanical or wiring layout operations voids all warranty programs instantly.

## 07. GLOBAL SUPPORT CHANNELS

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For customization questions, engineering parameter consultations, custom discharge plug options, or technical field support:

**Website Support:** [support@booant.com](mailto:support@booant.com)

**Official Store:** [www.booant.com](http://www.booant.com)