



Product Datasheet

# 72V 30AH HIGH-PERFORMANCE LITHIUM-ION BATTERY PACK

Heavy-Duty Metal Enclosure Edition for Electric Motorcycles

DOCUMENT ID

TS-72V30A-M-V7

RELEASE DATE

May 2026

CLASSIFICATION

Technical Standard

# 01. PRODUCT OVERVIEW & CELL ARCHITECTURE

The BOOANT 72V 30Ah system represents the absolute peak of high-power engineering for electric motorcycles, urban delivery fleets, and high-wattage e-mobility conversions. Enclosed within a heavy-duty laser-welded stainless steel and aluminum alloy chassis, this pack is purpose-built to withstand severe physical vibrations, extreme thermal cycles, and demanding high-current discharge regimes.



## CELL CONFIGURATION & STRUCTURAL PARAMETERS

<b>Cell Technology</b>	Premium Grade-A Samsung 21700 (High Discharge 50G Compatible)
<b>Configuration Matrix</b>	20S6P (20 Series, 6 Parallel Pure Nickel Matrix Assembly)
<b>Total Cell Count</b>	120 Premium Form-Factor Cylindrical Cells
<b>Casing Material</b>	Stainless Steel + Matte Powder-Coated Anti-Corrosive Armor
<b>Ingress Protection</b>	IP65 Certified Dust and Full Submersion Waterproofing

## 02. INTELLIGENT BMS SYSTEM ARCHITECTURE

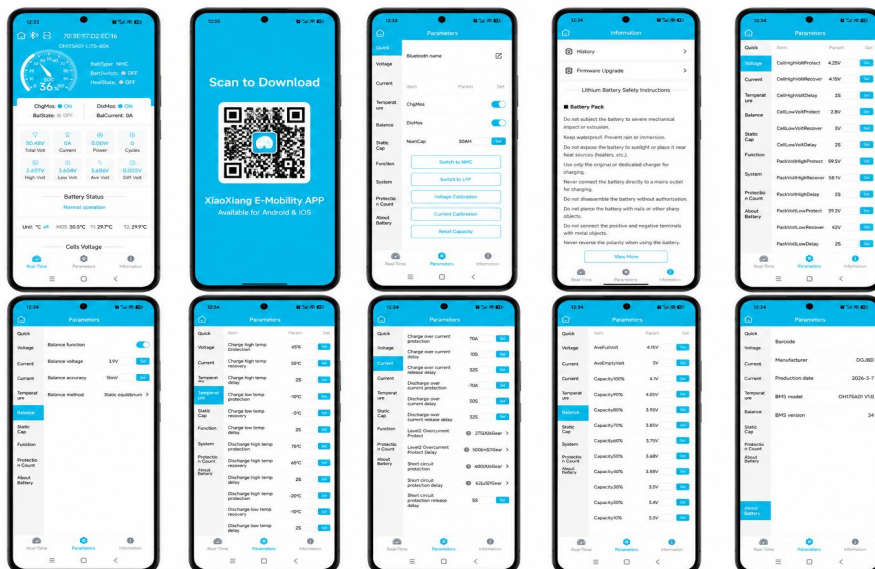
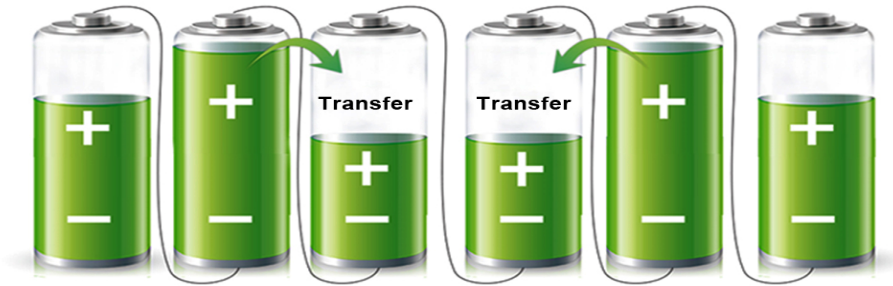
Every BOOANT Flagship battery integrates a customized high-performance JBD Smart Battery Management System (BMS). Featuring active thermal monitoring, precision balancing algorithms, and independent dual-stage hardware protection layers, the BMS preserves multi-year cell health while permitting continuous high-amperage output.



### BMS PROTECTION THRESHOLDS & OPERATIONAL LIMITS

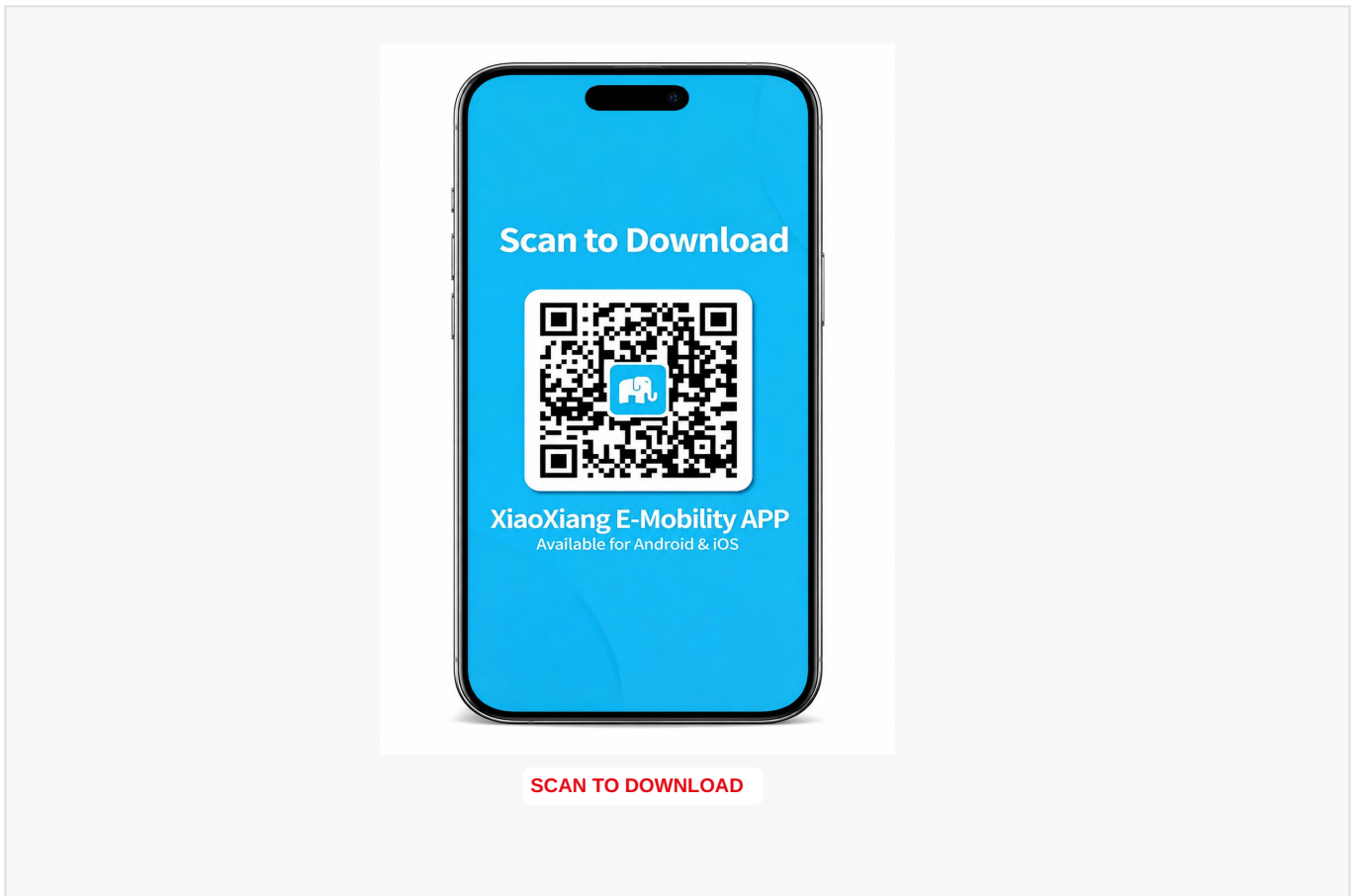
<b>Continuous Discharge Current</b>	50A (Regulated via low internal resistance MOSFETs)
<b>Peak Discharge Amperage</b>	150A (Duration < 2000ms before automatic safety trip)
<b>Cell Over-Charge Protection</b>	4.25V $\pm$ 0.025V per cell (Automatic recovery at 4.15V)
<b>Cell Over-Discharge Protection</b>	2.50V $\pm$ 0.05V per cell (Automatic recovery at 3.00V)
<b>Balancing Topology</b>	Passive/Active Hybrid Autonomous Balancing (Triggered at 3.90V, 45mA)
<b>Thermal Safety Limits</b>	High Charge: 65°C   High Discharge: 75°C   Low Temp Freeze Lock: -20°C

# BMS PROTECTION THRESHOLDS & OPERATIONAL LIMITS



## 03. XIAOXIANG E-MOBILITY WIRELESS INTERFACE

The integrated Bluetooth module couples natively with the XiaoXiang E-Mobility application available for iOS and Android. This provides operators, fleet mechanics, and riders with true real-time visibility into the chemical and electrical telemetry of the pack.



### REAL-TIME BALANCING DIAGNOSTICS

View absolute sub-millivolt individual cell deviations across all 20 series strings concurrently to preemptively isolate cell inconsistencies.

### PARAMETRIC CUSTOMIZATION

Authorized administrators can recalibrate over-current parameters, adjust temperature buffer limits, and select chemistry profiles.



## 05. COMPLETE TECHNICAL DATASHEET

The complete performance indicators and dimensional characteristics of the BOOANT 72V 30Ah Metal Case variant are systematically audited and certified as follows:

SPECIFICATION CATEGORY	ENGINEERING DATA VALUE / PARAMETER LIMIT
Nominal Voltage	72.0 Volts DC
Nominal Capacity	30.0 Amp-hours (Ah) @ 0.2C Discharge Rate
Total Stored Energy	2,160 Watt-hours (2.16 kWh Total Energy Reserve)
Internal Resistance	≤ 25 Milliohms (≤ 25mΩ fully saturated)
Standard Charge Current	5.0 Amperes (Recommended for optimized chemical longevity)
Maximum Charge Rate	10.0 Amperes (With specialized optional premium fast chargers)
Discharge Output Gauge	10AWG High-Temperature Flexible Silicone Cabling
Standard Connectors	Genuine XT90 / Anderson Powerpole / Customized Interfaces
Dimensions (L x W x H)	275×180×140mm (10.8×7.1×5.5in)
Approximate Total Weight	≈12kg (26.5lbs)
Expected Cycle Lifespan	≥ 800 cycles to 80% Retention Capacity (100% Depth of Discharge)

### STORAGE ENVIRONMENT PROTOCOL

Store at 40%–60% State of Charge (SOC) in a dry environment between 15°C and 25°C. Conduct verification and top-up replenishment every 90 days.

# BOOANT GLOBAL WARRANTY & SERVICES

## Compliance & Operational Protocols

Every BOOANT high-capacity metal-enclosed power matrix is backed by an industry-leading comprehensive commercial warranty regime, managed internationally through our local logistics centers across Europe, North America, and global hubs.

<b>WARRANTY TERM</b>	24-Month Comprehensive Global Repair and Component Replacement Policy.
<b>TECHNICAL ASSISTANCE</b>	8/5 Dedicated Shopify Enterprise Portal & Certified E-Mobility Engineers.
<b>SAFETY COMPLIANCE</b>	UN38.3 Drop Audited, MSDS Registered, Sea/Air Freight Approved Enclosure.
<b>OFFICIAL PLATFORM</b>	<a href="http://www.booant.com">www.booant.com</a>

**BOOANT POWER MATRIX TECHNOLOGY**