74V48Ah E-Motorcycle Battery Pack NMC Power System

Key Specifications

Capacity	48Ah	Voltage	74V
Model	74V48Ah E-Motorcycle Power	Operating Temp	-20°C ~ 60°C

Product Overview

Model Number	74V48Ah E-Motorcycle Power System
Configuration	20S
Chemical Materials	NMC
Nominal Capacity (Ah)	48.0
Nominal Energy (kWh)	3.7
Nominal Voltage (V)	74
Operating Voltage Range (V)	60-87
Max. Continuous Charging Current (A)	50
Peak Charging Current (A)	100
Max. Continuous Discharge Current (A)	150
Peak Discharge Current (A)	250 @ 30s / 25°C
Cycle Life (times)	3000 @ 1C/1C, SOC retention >80%
Protection Function	Overcharge, over-discharge, and over-current protection
Communication Function	CAN
Dimensions (mm)	254 x 161 x 326 (L x W x H)
Product Weight (kg)	20
Protection Level	IP67

Working Altitude (m)	≤2000
Design Standards	GB/T 38058-2019, GB 31241-2022
Certification Standards	UN38.3, RoHS, UL 2054

Solution

Electric motorcycle packs fail in two familiar ways: they sag when the rider asks for hard acceleration, or they survive the current but lose sealing reliability after real road exposure. A 74V system has to do both jobs at once: deliver high current through repeated starts and climbs, then keep the BMS, busbars, and enclosure protected from rain, wash-down, dust, and vibration.

This 74V NMC power system is built around a 3.7kWh pack with 150A continuous discharge and a 250A peak discharge rating for 30 seconds at 25°C. The IP67 enclosure and CAN communication make it a practical fit for OEM e-motorcycle integration, not just a loose battery module. See LiTrue's broader range of battery pack systems for adjacent voltage and application platforms.

Application Areas

- Electric Motorcycles: supports a 74V traction platform with 150A continuous discharge and 250A peak output for launch, climbing, and short high-load pulls.
- Electric Scooters & Light EVs: delivers 3.7kWh of onboard energy in a compact 254 x 161 x 326mm pack envelope.
- Shared Mobility Fleets: combines CAN communication, IP67 protection, and overcharge, over-discharge, and over-current protection for monitored fleet operation.
- Outdoor Utility Vehicles: the sealed pack design helps protect the battery system in wet, dusty, and road-splash environments, consistent with the IP67 ingress protection rating.

FAQs

Is this pack designed for high-current electric motorcycle use?

Yes. The pack is rated for 150A maximum continuous discharge and 250A peak discharge for 30 seconds at 25°C, which is the key current window for acceleration and hill-climb events.

Why does the product name say 48Ah while the specification table says 50Ah?

The supplied technical table lists 50Ah nominal capacity and 3.7kWh nominal energy. The 48Ah name may be a model-family label or an earlier naming value, but it should be confirmed before publishing so the page, label, and datasheet match.

Can the pack communicate with a vehicle controller or display?

Yes. The specified communication function is CAN, so the pack can be integrated into systems that need battery status reporting, protection state visibility, and controller-level coordination.

Can I request samples or confirm certification documents?

Yes. Sample availability, final pack configuration, and model-specific certification documents should be confirmed during project scoping. Contact LiTrue's applications team to review the electrical interface, enclosure requirements, and qualification plan.