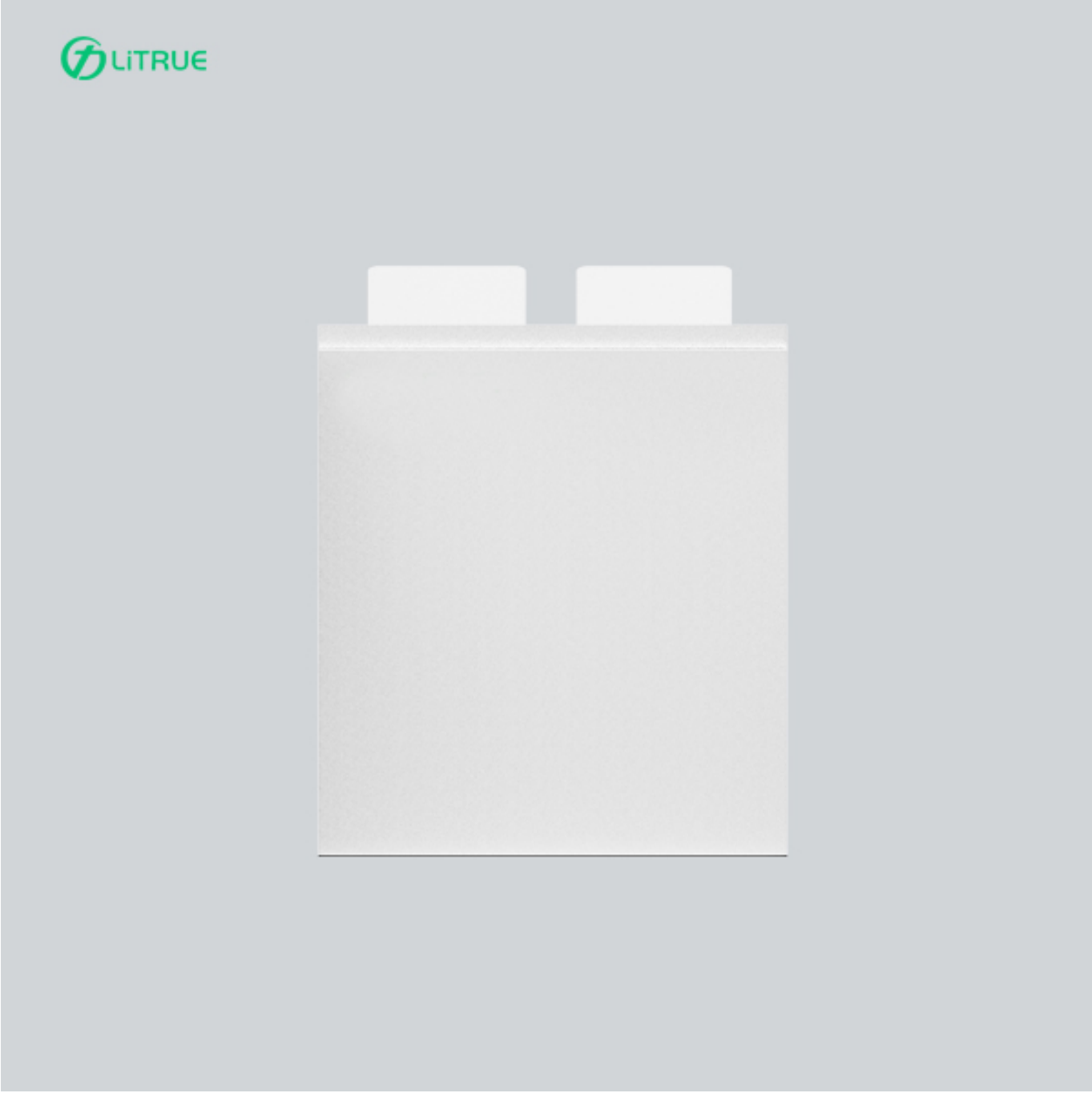
17.5Ah 6C/20C High C-rate LFP Pouch Battery Cell

Key Specifications

Capacity	17.5Ah	Voltage	3.2V
Model	P10E0E5-17500FP	Operating Temp	-30℃ ~ 55℃

Product Overview

When engineering power systems for hybrid agricultural tractors and heavy-duty industrial vehicles, standard lithium cells often fail to handle frequent start-stop operations and sudden load surges. LiTrue introduces our High C-rate LFP (Lithium Iron Phosphate) Pouch Battery Cell Series, engineered specifically to deliver ultra-long cycle life, exceptional thermal safety, and stable high-current output under extreme conditions.



Unmatched High-Current Performance (Model P10E0E5-17500FP)

At the core of this series is the P10E0E5-17500FP (17.5Ah) model. Utilizing highly secure LFP cathode materials and an advanced flexible stacked pouch structure, this cell dramatically lowers internal resistance. It is uniquely capable of supporting 6C continuous charge and discharge, and can handle extreme pulse discharges up to 20C. This ensures reliable, burst-power delivery for engine starts and

sudden heavy mechanical loads without compromising the cell's structural integrity.

Key Features & Engineering Advantages

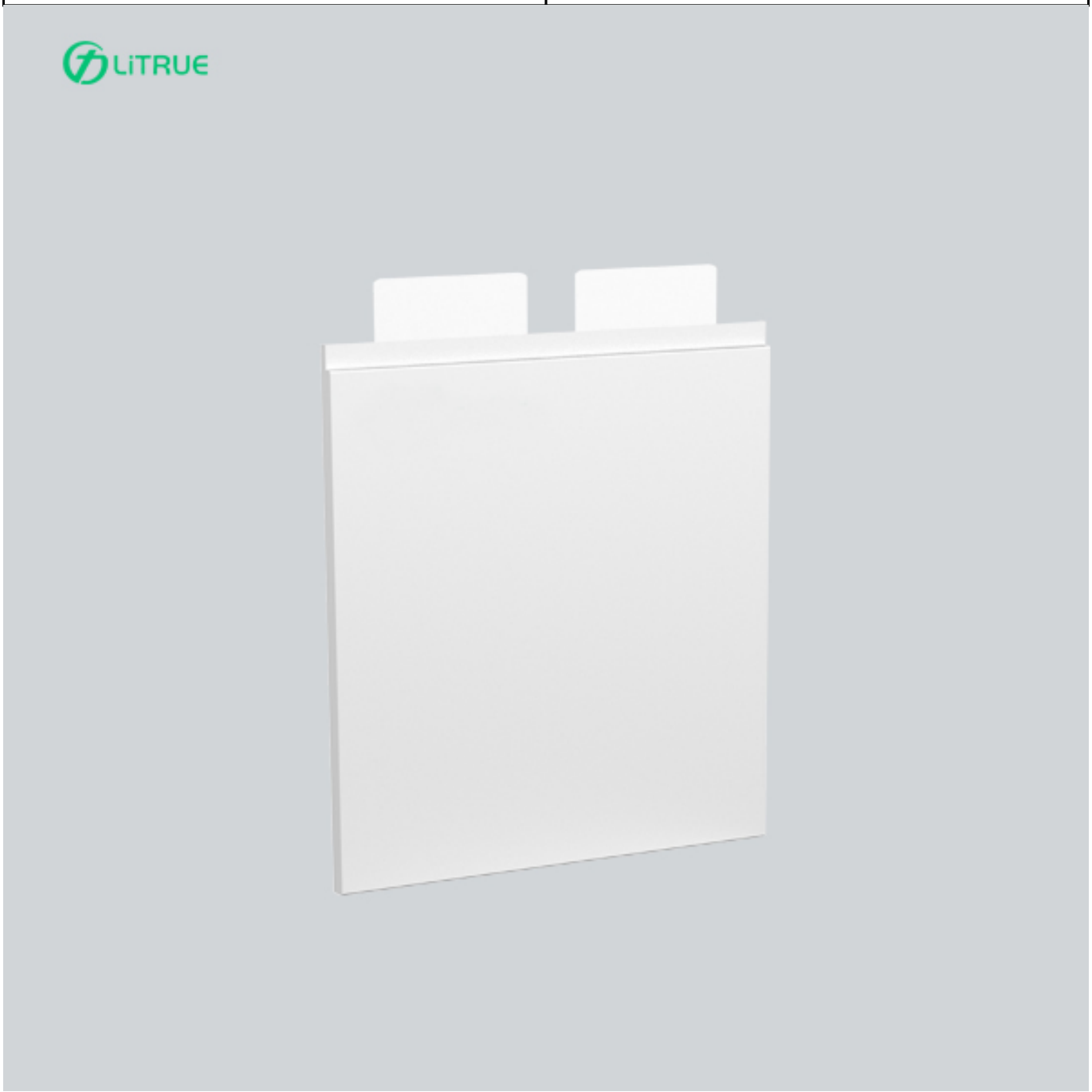
- High Rate Power Output: Capable of 6C continuous charge/discharge, making it the perfect energy core for the frequent start-stop nature of hybrid tractor systems.
- Strong Pulse Current Capability: Handles 15C pulse charging and 20C pulse discharging, instantly accommodating sudden engine load changes and energy recovery (regenerative braking) demands.
- Ultra-Long Cycle Life: Achieves an astounding ≥8000 cycles (under rigorous 3C/3C testing conditions), significantly reducing the Total Cost of Ownership (TCO) over the lifespan of the machinery.
- Inherent Safety & Stability: Built with LFP chemistry, it offers excellent thermal stability, ensuring safe operation in high-intensity, demanding agricultural environments.
- Wide Temperature Adaptability: Guaranteed stable power delivery across harsh climates, operating reliably from -30℃ up to 55℃.
- Compact Stacked Pouch Design: The lightweight, low-internal-resistance design simplifies battery pack assembly and thermal management system integration.

Technical Specifications (Model P10E0E5-17500FP)

Below are the detailed engineering specifications for the P17 high-power cell. Our team supports full customization for battery module grouping based on these cells.

Model Number	P10E0E5-17500FP
Chemical Materials	LFP (Lithium Iron Phosphate)
Cell Structure	Flexible Stacked Pouch Cell
Nominal Capacity (Ah)	17.5
Energy Density (Wh/kg)	137
Max. Continuous Charge Rate	6C
Max. Continuous Discharge Rate	6C
Max. Pulse Charge Rate	15C
Max. Pulse Discharge Rate	20C
Cycle Life (times)	≥8000 @ 3C/3C

Operating Temperature (℃)	-30℃ ~ +55℃
Dimensions (T×W×H, mm)	9.6 × 140 × 145



Ideal Applications for High-Power LFP Cells

Designed for sectors where safety, extreme durability, and instant power delivery are non-negotiable, the P10E0E5-17500FP series is highly recommended for:

- Hybrid Agricultural Tractors: Perfect for hybrid drive systems and PTO (Power Take-Off) energy recovery.
- Electrified Farming Machinery: Smart harvesters, heavy-lift agricultural drones, and electric tillers.
- Industrial Engineering Vehicles: Heavy-duty, low-speed industrial AGVs, forklifts, and loaders.
- High-Reliability Power Systems: Any application requiring 8000+ cycles and rapid charge/discharge capabilities.

Why Choose LiTrue?

As an experienced pouch cell manufacturer, LiTrue specializes in high-rate and high-power lithium battery technologies. Our mature stacked manufacturing process and strict consistency control ensure that every cell performs reliably in high-current scenarios. We operate a rigorous quality management system—from raw material inspection to final life-cycle testing.

Beyond individual cells, we provide system-level customization. Our engineering team delivers end-to-end support, including custom battery module assembly, BMS integration, and structural pack design tailored to your specific electrified vehicle requirements.

Contact Our Engineering Team to Request P10E0E5-17500FP Cell Samples & Datasheets