

36Ah Semi-Solid State High energy-density NMC Pouch Cell

Key Specifications

Capacity	36Ah	Voltage	3.6V
Model	PE36N-E	Operating Temp	-43°C ~ 55°C

Product Overview

Model Number	PE36N-E
Chemical Materials	NMC
Type	Pouch Cell
Nominal Capacity (Ah)	36.0
Nominal Voltage (V)	3.60
Energy Density (Wh/kg)	321
Max. Continuous Charge Rate	2C
Max. Continuous Discharge Rate	3C
Max. Pulse Charge Rate	3C
Max. Pulse Discharge Rate	10C
Cycle Life	≥1000 cycles at room temperature, 100% DOD-80% SOC, 1C/3C
Operating Temperature	-43°C to 55°C recommended operating temperature
Dimensions (T×W×L, mm)	10.9 × 87.0 × 188.0
Design Standards	GB/T 38058-2019, GB 31241-2022
Certification Standards	UN38.3, RoHS
Sample MOQ	10 pcs (Negotiable)

Sample Lead Time	7–15 working days
Bulk Lead Time	45 days (subject to volume & requirements)



Solution

Some pouch cells are designed mainly for room-temperature energy storage. They can show good capacity on the datasheet, but when the system has to work in cold weather or deliver a short high-current burst, voltage drop and thermal stress quickly become the real design limits.

The PE36N-E is a 36.0Ah NMC pouch cell for packs that need high specific energy without giving up low-temperature usability. With 321Wh/kg energy density, 3C continuous discharge, 10C pulse discharge, and a recommended operating range from -43°C to 55°C, it gives pack designers a lighter cell option for demanding mobile power systems. See LiTrue's [battery cell lineup](#) for related pouch and prismatic cell options.

Application Areas

- Industrial UAV Battery Packs: 321Wh/kg energy density helps reduce cell weight, while 10C pulse discharge supports takeoff and short high-load maneuvers.
- Cold-Weather Mobile Equipment: the -43°C to 55°C recommended operating range makes the cell suitable for systems that cannot be limited to mild environments.
- High-Energy Portable Power Systems: the 36.0Ah capacity and pouch format support compact module design where runtime and weight both matter.
- Robotics and Inspection Platforms: 3C continuous discharge gives moving platforms a stronger current base for motors, sensors, and onboard control electronics.

FAQs

What current does the PE36N-E support?

For a 36.0Ah cell, 2C continuous charge equals about 72A, and 3C continuous discharge equals about 108A. The listed pulse ratings equal about 108A for pulse charge and 360A for pulse discharge, subject to pack design and thermal limits.

Is this cell mainly for low-temperature applications?

Yes. Low-temperature operation is one of its key strengths. The recommended operating temperature is -43°C to 55°C, but final pack performance still depends on insulation, heat dissipation, current profile, and BMS settings.

Can this cell be used to build a UAV battery pack?

Yes. The combination of 321Wh/kg energy density and 10C pulse discharge fits UAV packs where takeoff current and flight weight are both important. LiTrue can also support finished [battery pack](#) development if the project needs BMS, enclosure, and connector design.

Can I request samples for testing?

Yes. Share the target pack voltage, discharge current, charge method, operating temperature, and cycle-life requirement with LiTrue's [engineering team](#) so the cell can be checked against the actual use case before pack design starts.