56Ah Fast Charging NMC Pouch Cell

Key Specifications

Capacity	56Ah	Voltage	3.7V
Model	PP56N-P	Operating Temp	-43℃~65℃

Product Overview

Model Number	PP56N-P
Classification	Fast-Charging, High C-Rate
Chemical Materials	NMC
Cell Structure	Pouch
Nominal Capacity (Ah)	56
Nominal Voltage (V)	3.70
Cell Weight (g)	925
Energy Density (Wh/kg)	224
Max. Continuous Charge Rate	2C
Max. Continuous Discharge Rate	3C
Max. Pulse Charge Rate	5C
Max. Pulse Discharge Rate	8C
Operating Temperature (°C)	-43 to 65
Dimensions (T×W×H, mm)	13.0 × 142 × 232

Other Cells in the Fast Charging High C-Rate Cell Series

PC20N-P	20Ah	3.70V	345g	3C/5C	5C/15C	-43℃~65℃	9.6×90×192mm
PC22C-P1	22Ah	3.75V	421g	3C/5C	5C/15C	-43℃~65℃	11.3×90×192mm
PJ28N-P	28Ah	3.70V	463g	2C/5C	5C/15C	-43℃~65℃	10.3×90×231mm
PA50N-P	50Ah	3.70V	820g	2C/3C	5C/8C	-43℃~65℃	10.0×161×232mm
PA58N-P	58Ah	3.70V	940g	2C/3C	5C/8C	-43℃~65℃	12.3×161×232mm
PP50N-P	50Ah	3.70V	818g	2C/3C	5C/8C	-43℃~65℃	11.4×142×232mm
PP56N-P	56Ah	3.70V	925g	2C/3C	5C/8C	-43℃~65℃	13.0×142×232mm

Solution

Fast charging becomes a pack-design problem when the cell cannot absorb current consistently or maintain voltage under load. The usual result is extra parallel cells, larger charging infrastructure, and

unnecessary mass.

PP56N-P is a 56Ah NMC pouch cell for systems that need 2C continuous charging, 3C continuous discharge, and 8C pulse output. Its -43°C to 65°C operating range supports projects exposed to both cold start conditions and elevated operating temperatures. See LiTrue’ s full range of high-rate battery cells for related configurations.

Application Areas

- Industrial UAVs: Provides 3C sustained discharge for propulsion demand and 8C pulse output for takeoff and rapid maneuver loads.
- Electric Motorcycles and Performance EVs: Supports fast-charge strategies and high-current acceleration events.
- AGVs and Industrial Robotics: Fits repeated-duty applications with frequent acceleration, braking, and fast turnaround charging.
- Portable High-Power Equipment: Combines 56Ah capacity with a 13.0 × 142 × 232mm pouch format for custom battery-pack designs.

FAQs

What current can PP56N-P deliver?

At 56Ah, 3C continuous discharge corresponds to 168A, while 8C pulse discharge corresponds to 448A. Confirm pulse duration, thermal conditions, cable sizing, and protection settings for the final pack.

How quickly can PP56N-P be charged?

The cell is rated for up to 2C continuous charging and 5C pulse charging. The final charging profile must be validated for temperature, charger control, and pack thermal design.

What pack voltage can I build with PP56N-P?

Each cell is 3.70V nominal. A 12S configuration is 44.4V nominal, while a 14S configuration is 51.8V nominal. Contact LiTrue’ s engineering team to scope a suitable configuration.

Can PP56N-P be used in low-temperature environments?

Yes. Its stated operating-temperature range is -43°C to 65°C. Actual available capacity, charging behavior, and thermal performance should be validated under the intended application load profile.

What are the sample and production lead times?

Sample availability, MOQ, and production lead time depend on the required configuration and order volume. Reach out to LiTrue’ s applications team to discuss your project requirements.