

Prism Mark

Product Manual

Hefei Lengqi Fanglue International Trade Co., Ltd.

High-Performance Rechargeable Lithium Battery Solutions

Company Profile

Located in the High-tech Zone of Hefei City, **Hefei Lengqi Fanglue International Trade Co., Ltd.** is a pioneer in the energy sector.

- ✔ **20 Years Experience:** Specialized in the production of new energy lithium batteries.
- ✔ **Proprietary IP:** Full range of cylindrical rechargeable lithium batteries with independent intellectual property patents.
- ✔ **Global Reach:** Products have successfully entered the global market, partnering with over 80 e-commerce platforms and 10+ international agents (EZGO, Chaowei, etc.).
- ✔ **Scale:** Phase 1 production has reached a batch scale of 300,000 units per month, ready to meet the growing demand for "smart" lithium batteries.



Core Technical Advantages



Electrolyte Tech

Mastery of core electrolyte material technology ensures significant competitive advantages in battery performance and safety.



Smart Solutions

Developing intelligent battery solutions alongside traditional cells to meet the rising demand for smart devices.



Automated Lines

Self-developed, highly automated production lines guarantee a 95%+ first-pass yield, enhancing efficiency and quality.



Complete Chain

A comprehensive industry chain extending from fundamental electrolyte materials down to final battery packing.

Product Focus: Cylindrical Solid-State Battery

Core Advantages

Our stacked cells are designed for maximum efficiency and durability, serving as the foundation for our high-capacity solutions.

- 🛡️ **Safe, stable and reliable** operation under various conditions.
- ⚡ **High voltage platform** delivering superior power.
- 📉 **Anti-high temperature capabilities** for extreme environments.
- 🔋 **Heavy load discharge support** for demanding applications.
- 🔄 **Good cycle life** ensuring long-term usability.
- 🌿 **Low power consumption & Light weight** design.



General Specifications

Parameter	Unit	Value	Parameter	Unit	Value
Nominal capacity	mAh	3800	Discharge current	mA	1900
Charge cut-off voltage	V	4.3±0.5	The diameter of(D)	mm	18±0.2
Nominal voltage	V	3.9±0.5	Highly(H)	mm	65±0.5
Discharge cut-off voltage	V	2.7±0.5	Operating temperature	°C	-130
Internal resistance	mΩ	≤40	Charging way	Constant current and constant pressure	
Charging current	mA	760-1900	Application	Electric toys, remote control cars	

Material Specs: Ternary Lithium (三元锂)

Model	Nominal Capacity (mAh)	Nominal Voltage (V)	Internal Res. (mΩ)	Charge Current	Discharge Current
ZTH09270-180	180	3.9±0.05	≤100	0.2-0.5C	0.2-0.5C
ZTH09270-210	210	3.9±0.05	≤110	0.2-0.5C	0.2-0.5C
ZTH13300-300	300	3.9±0.05	≤80	0.2-0.5C	0.2-0.5C
ZTH13400-600	600	3.9±0.05	≤50	0.2-0.5C	0.2-0.5C
ZTH13400-670	670	3.9±0.05	≤50	0.2-0.5C	0.2-0.5C
ZTH18650-2000-3C	2000	3.9±0.05	≤30	0.2-0.5C	3C
ZTH18650-2000-5C	2000	3.9±0.05	≤30	0.2-0.5C	5C
ZTH18650-2200-3C	2200	3.9±0.05	≤30	0.2-0.5C	3C

Material Specs: LCO & Manganese

Lithium Cobalt Oxide

Model	Capacity (mAh)	Int. Res. (mΩ)	Charge	Discharge
ZTH13300-400-3A	400	≤80	0.5C-1C	3A
ZTH13400-550-3A	550	≤50	0.5C-1C	3A
ZTH16300-550-3A	550	≤60	0.5C-1C	3A

Manganese Series & Liquid High Capacity

Material	Model	Capacity (mAh)	Charge	Discharge
Manganese	ZTH18650-1500	1500	0.2-0.5C	0.2-1C
Manganese	ZTH18650-2000	2000	0.2-0.5C	0.2-1C
Liq. High Cap	ZTH18650-3800	3800	0.5C Std	0.2C Std

Applications



Electric Two-wheeler



Electric Tricycle



Micro EV



Electric
Special-purpose Vehicle



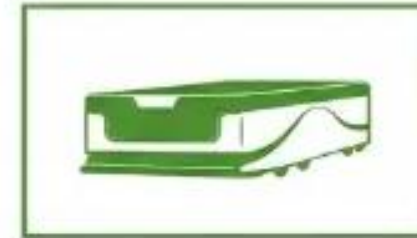
Start-stop Battery



Garden Tools



Service Robot



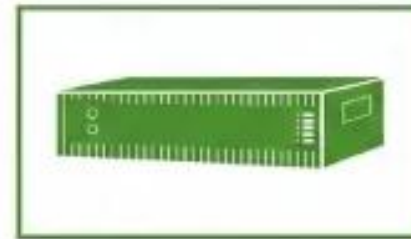
AGV/AMR



Residential Energy
Storage



Portable Power Station

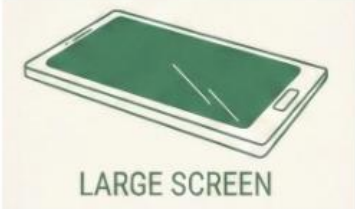






Telecom Base
Station Storage



UPS (Uninterruptible
Power Supply)

Applications

Application	Phone	Tablet	Laptop	Watch/Bracelet	Wireless Earbuds
Terminal Devices	 <p>LARGE SCREEN</p>	 <p>TABLET</p>	 <p>LAPTOP</p>	 <p>SMARTWATCH</p>	 <p>EARBUDS</p>
Cell Type	Pouch	Pouch	Pouch	Small Pouch	Button
Voltage (V)	4.2-4.4	4.2-4.4	4.2-4.4	4.2-4.4	4.2-4.4
Maximum Energy Density (Wh/L)	>200	>200	>200	>200	>200
Maximum Cycle Life Retention $\geq 80\%$	1C ≥ 1000	1C ≥ 1000	1C ≥ 1000	1C ≥ 1000	1C ≥ 1000
Operating temperature (°C)	-130	-130	-130	-130	-130

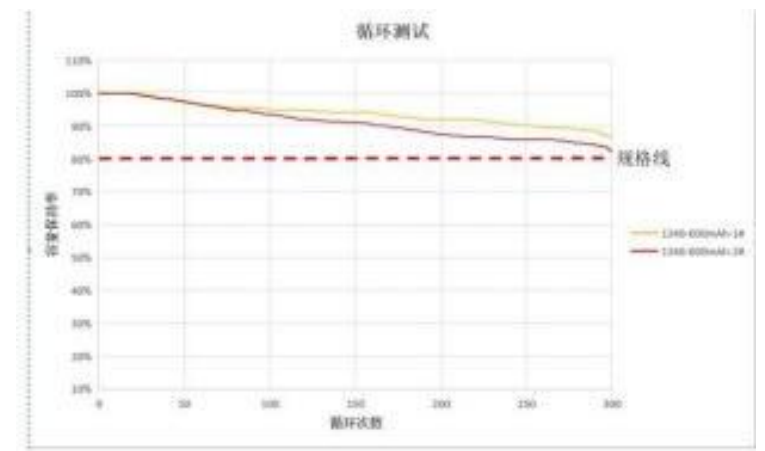
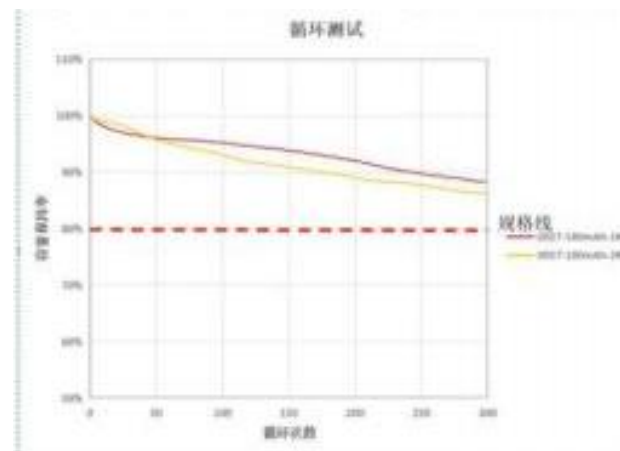
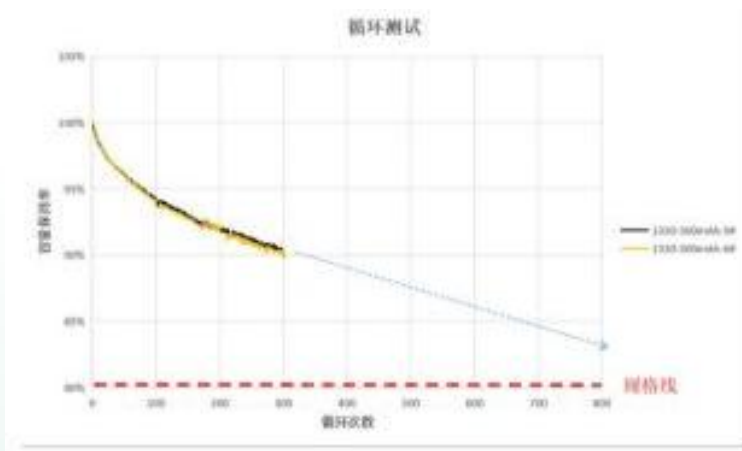
Rigorous Testing & Cycle Life

Exceptional Longevity

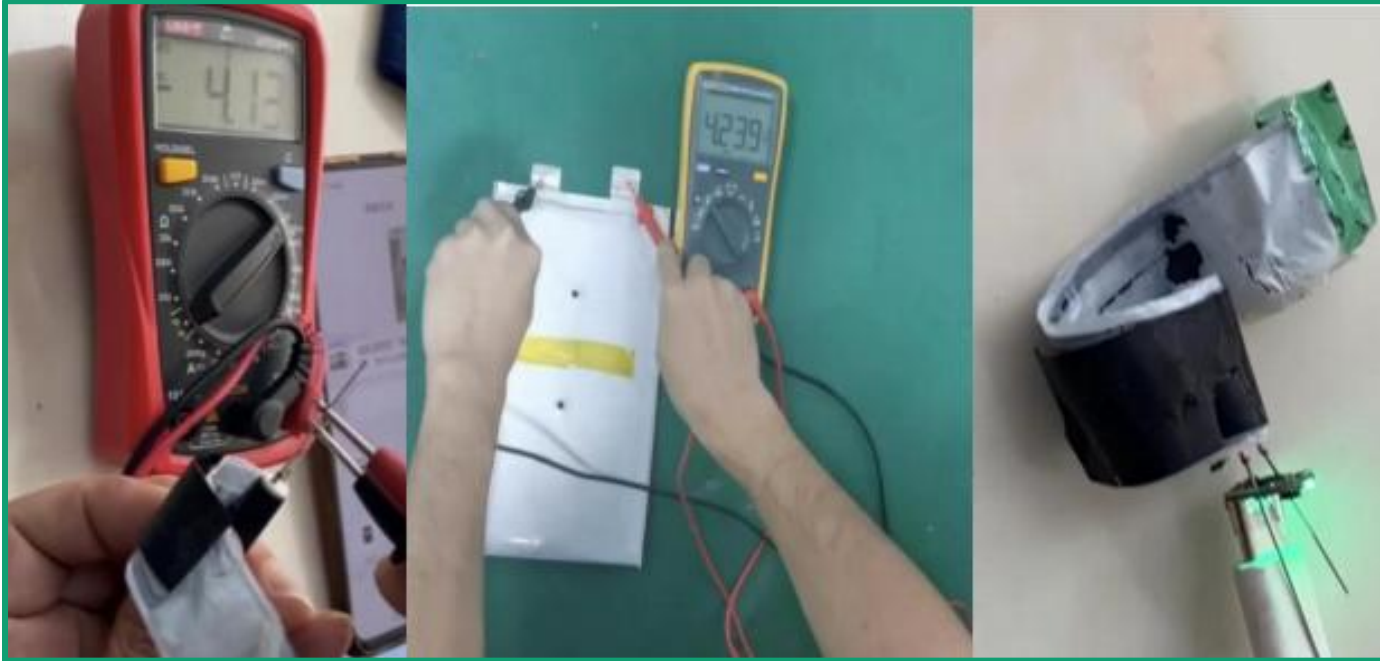
Our batteries undergo strict cycle testing to guarantee long-term stability and minimal capacity degradation.

- ✔ **Test Method:** 23°C, 0.5C constant current/voltage charge to 4.2V (cutoff 0.05C), 0.5C discharge to 2.7V.
- ✔ **Models Tested:** 09270-180, 13300-300, 13400-600.

- 🎯 **Initial Results:** 88% - 89% capacity retention after 300 cycles.
- 🎯 **Projection:** Attenuation slows down significantly; projected to easily meet **80% capacity at 800 cycles.**



Product Test

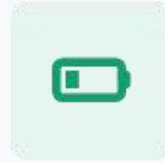


Manufacturing Process



1. Pole Piece Making

Batching → Coating → Rolling →
Slitting



2. Cell Making

Winding/Shelling → Baking →
Assembly/Injection → Sealing →
Cleaning → Sleaving



3. Post-Processing

Formation → Aging → Capacity Grading
→ Testing → Packaging

Advanced Production Equipment


We rely on top-tier, precision machinery to ensure the consistency and quality of our lithium battery production.

- ⚙️ **Die-Cutting:** Blade die-cutting, intermittent, and high-speed hardware die-cutting machines.



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 **Stacking:** Lithium metal specialized stackers, type 300 dual-station automatic, high-speed dual-station, and integrated cut-stack machines.



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↻ **Winding:** Precision automatic winding machines.

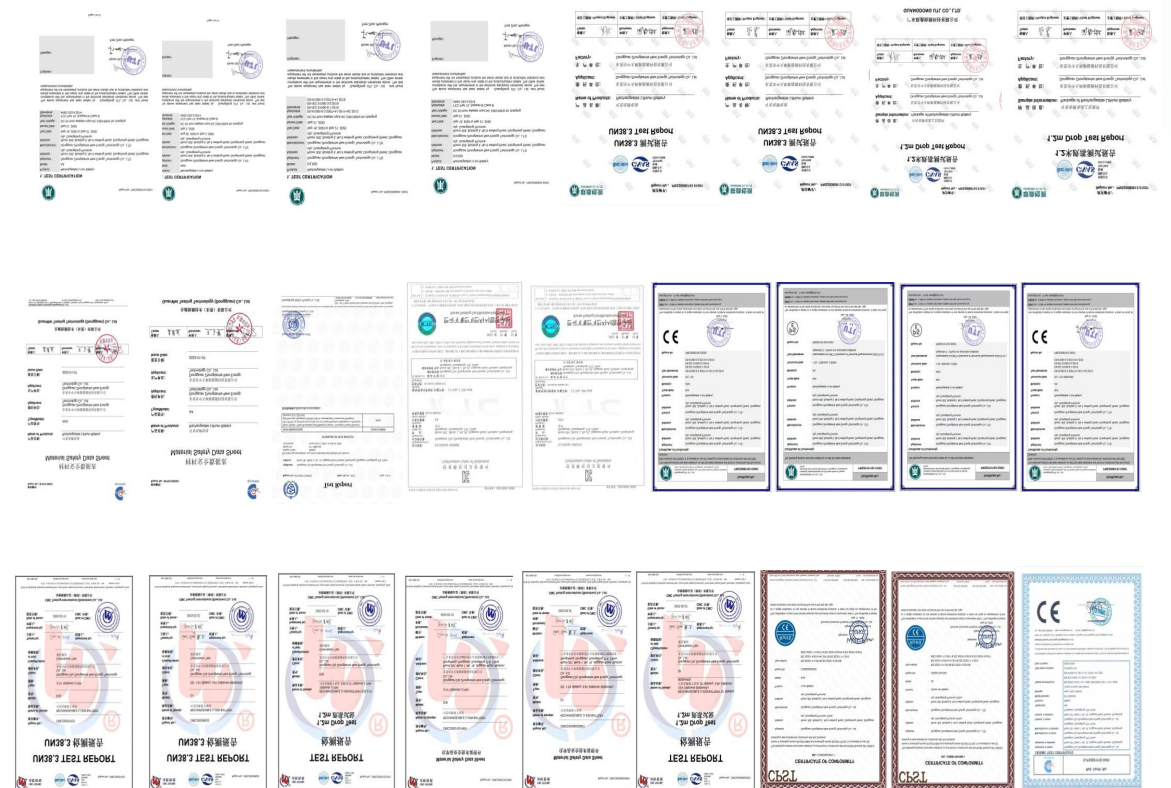


Global Certifications

Committed to Safety & Compliance

Our full range of products meets the strict transport and safety standards required for international distribution. We prioritize quality assurance at every step.

FCC USA	UKCA UK	CE EU	ROHS Global
PSE Japan		UN38.3 Transport	



Prism Mark

Powering the future with smart, reliable energy solutions.



Hefei Lengqi Fanglue International Trade Co., Ltd.



F4 Bldg, Phase II Innovation Ind. Park, High-tech Zone, Hefei