Unmatched Endurance for Longer Journeys in Thermal Extremes

→ HL18650Y

Consistent in Extreme Temperatures

-40°C to 85°C

Operates from -40°C to 85°C with stable voltage and capacity output.

Stable Under High Currents

Delivers reliable power at up to 20A, meeting high-demand applications.



Certified for Global Standards

Complies with CB, UL, CCC, BIS, PSE, KC, BSMI and other international certifications for safe and reliable use.

Capable of retaining over 90% recoverable capacity after 30 days of 4.10V storage at 85°C.

90%

Retains over 85% capacity after 500 cycles, ensuring long-term reliability.

500 Cycles

Maintains 70% capacity at -40°C, ensuring reliable performance in freezing conditions.

-40°C

Product Specifications



HL18650Y

Dimension

Diameter	18.25±0.2mm	Height	64.95 ± 0.2 mm

Capacity

Min capacity (0.2C)	3100 mAh	Typical capacity (0.2C)	3200 mAh

Voltage and current

Nominal voltage	3.60V	Working voltage	2.75V-4.20V
Max charge / discharge current	3.2A / 10A		

Working temperature

Charge	-20~60℃	Discharge	-40~85℃

Other

Cycle life	> 500	-40℃ capacity (0.2C)	≈ 70%
Recovery capacity after 1000h 80℃ aging	> 90%		

Explore

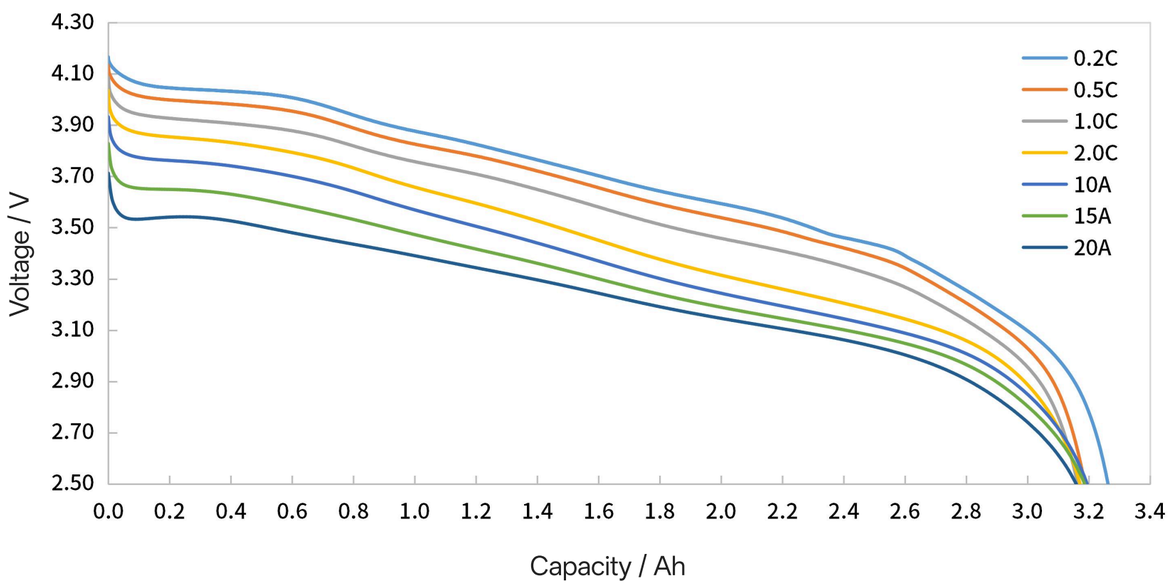
HL18650Y

Performance Insights

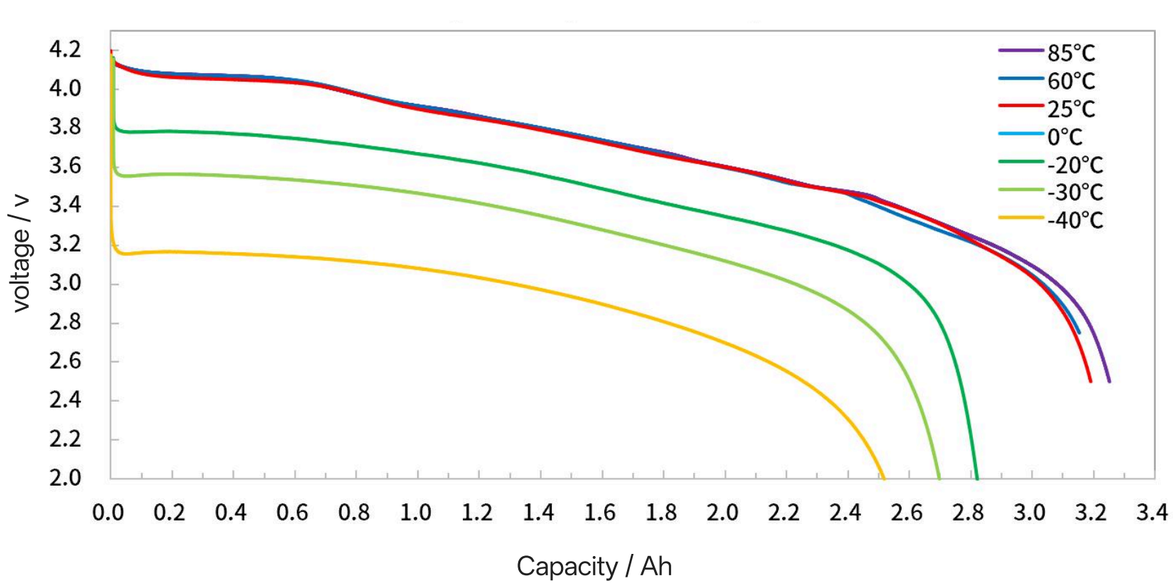
Defy Temperature Limits:
Consistent Power Anywhere.



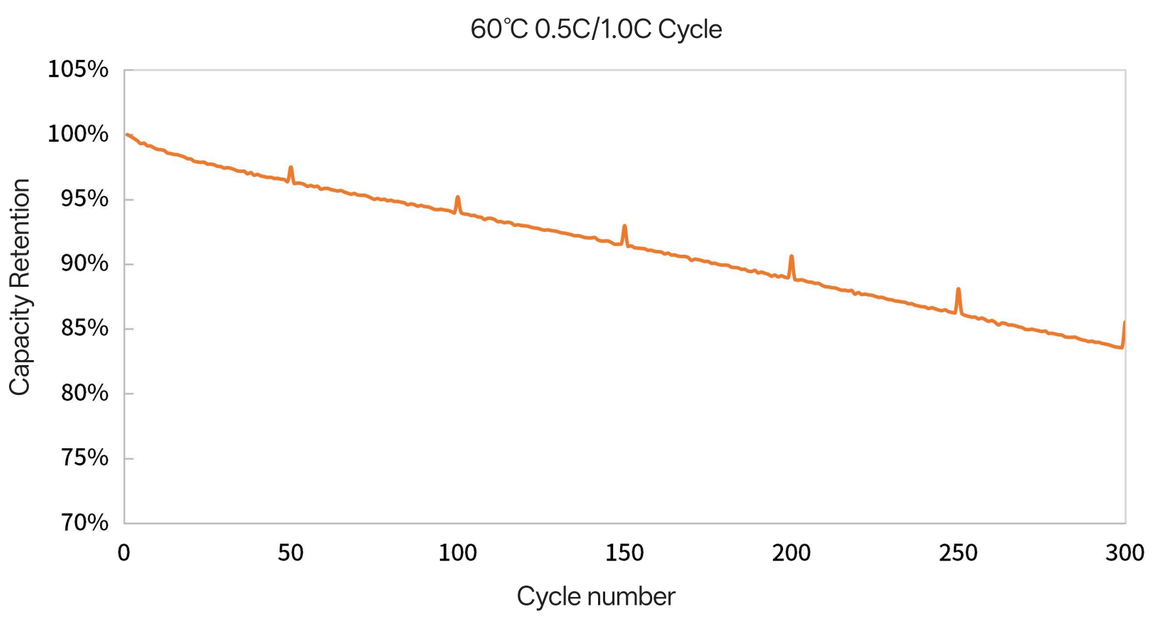
Rate discharge



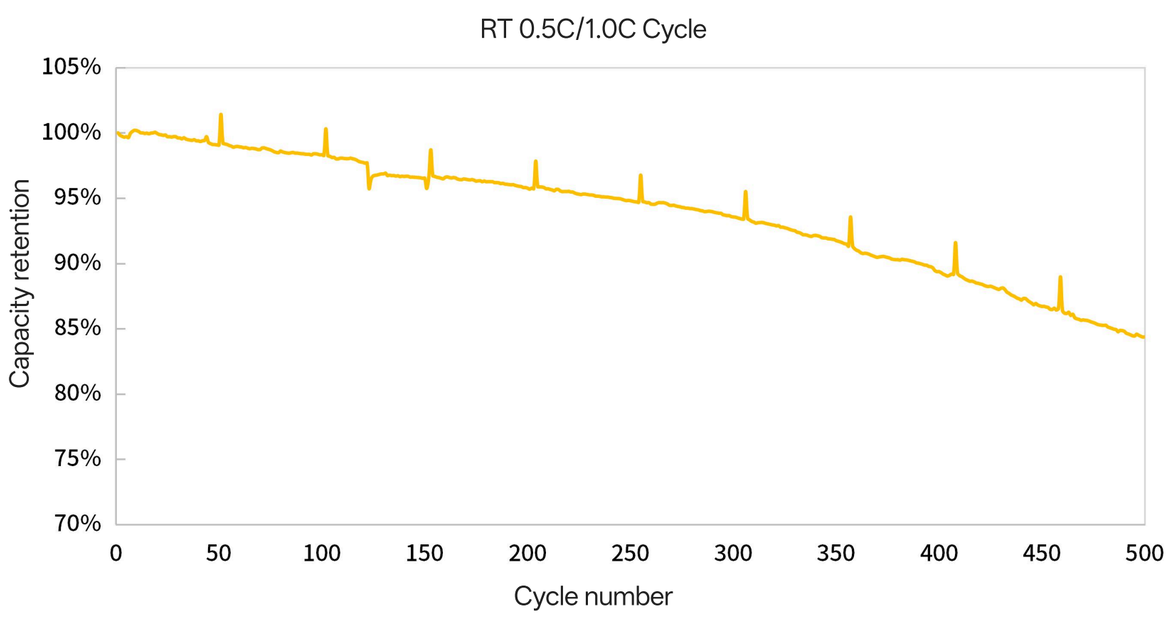
Discharge at different temperature



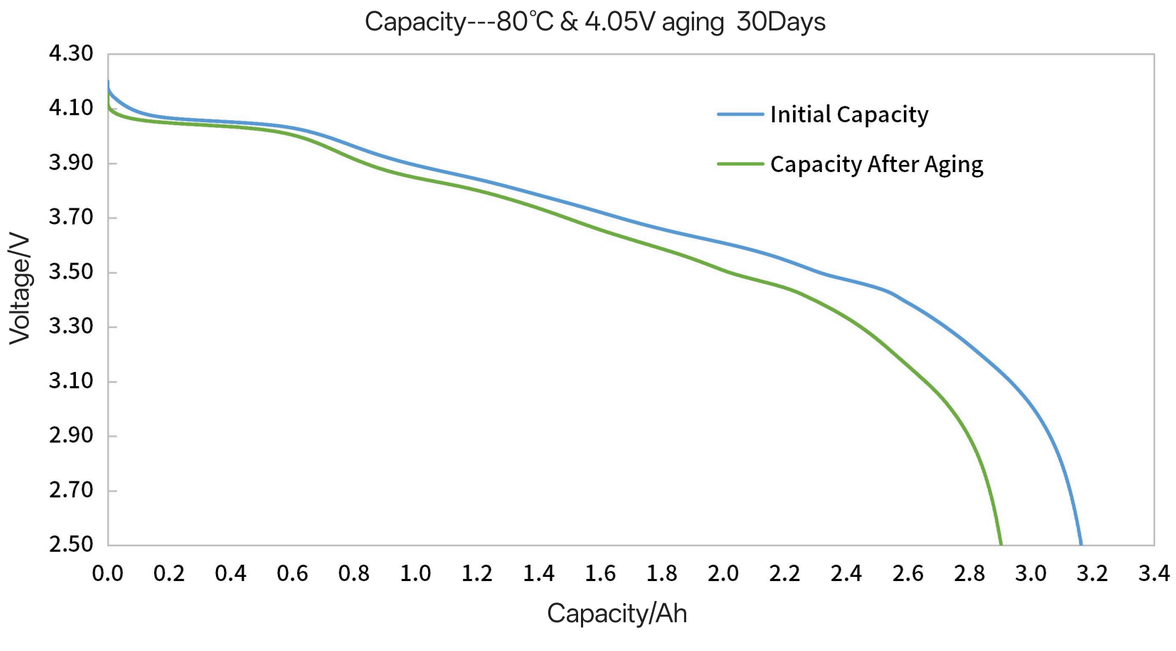
Cycle at high temperature



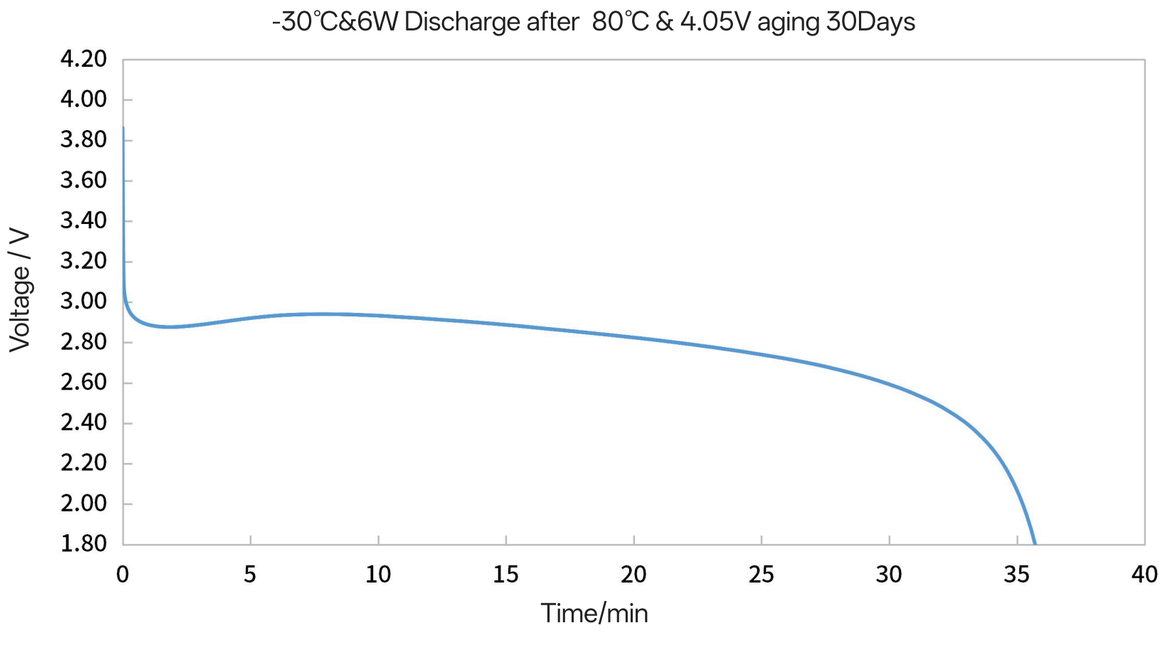
Cycle at room temperature



80℃&4.05V aging



80℃&4.05V aging



What we’re enabling with

HL18650Y



Reliable Power for Industrial Handheld Scanners

Industrial handheld scanners require durable energy for heavy use in demanding environments. The HL18650Y battery ensures efficient and uninterrupted operation for industrial applications.

Stable Energy for Outdoor Surveillance

Outdoor surveillance systems demand reliable power for continuous monitoring in extreme conditions. The HL18650Y battery ensures dependable monitoring for enhanced security.





Durable Power for Industrial Walkie-Talkies

Industrial walkie-talkies require stable power for clear and reliable communication in harsh environments. The HL18650Y battery supports seamless communication for critical operations.

Security & Monitoring

Medical Devices

Industrial Handhelds

Field Instruments

Mineral Exploration

Outdoor Military Gear

Logistics & Containers

UltraXel Limited

UltraXel specializes in wide-temperature lithium-ion cells, provides innovative energy solutions for extreme environments to enhance product performance while powering diverse applications.



26
Years
Battery Expertise

50+
Countries
Global Reach

38
Invention Patents

6 Lines
Of Automated Production

100+
International Trusted Partnerships

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