

# 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 ..... 2.50V~4.20V

Max charge / ..... 3.2A / 10A  
discharge current

### Working temperature

Charge ..... -20~60°C      Discharge ..... -40~85°C

### Other

Cycle life ..... > 500      -40°C capacity (0.2C) ..... ≈ 70%

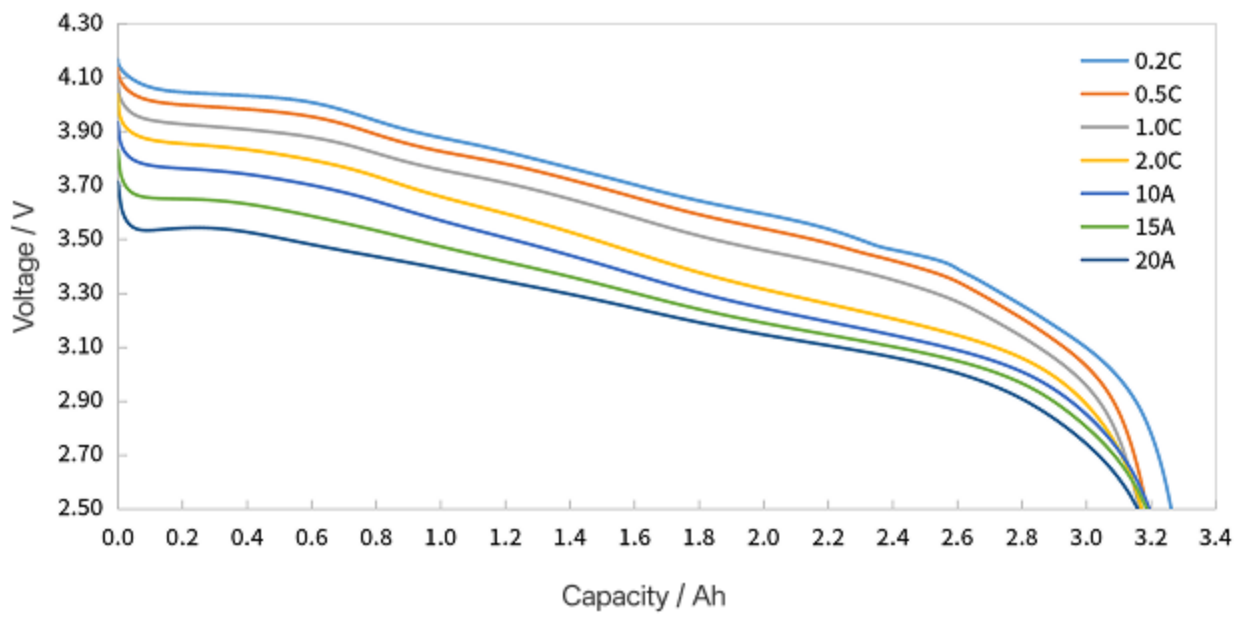
Recovery capacity ..... > 90%  
after 30 days 80°C aging



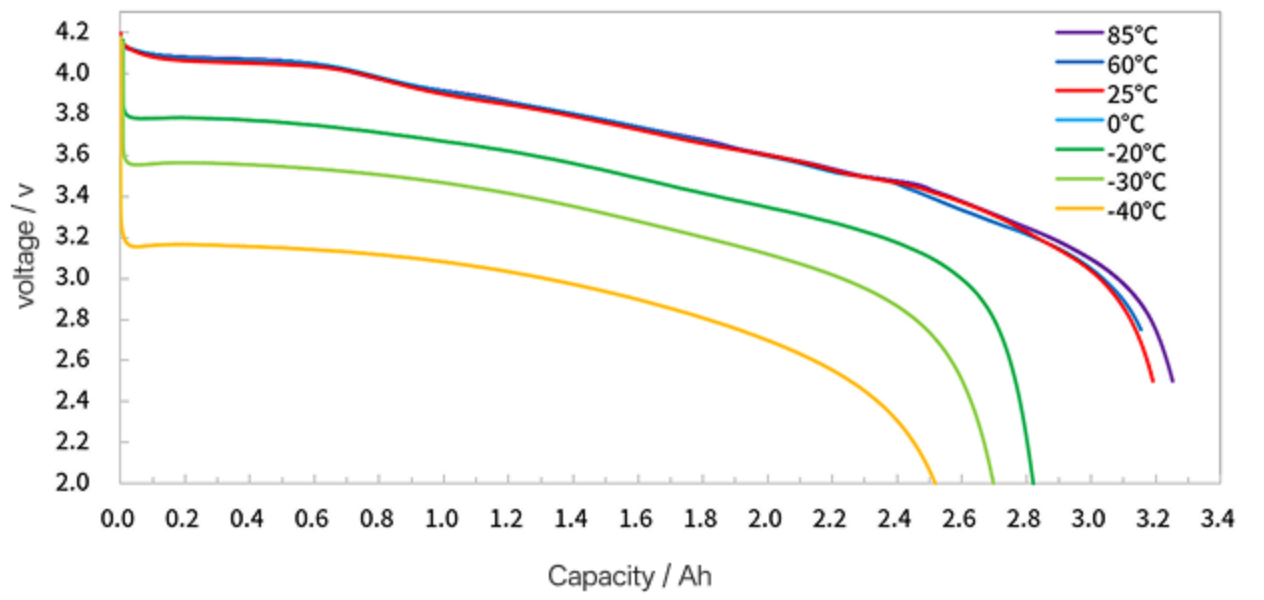
# Explore HL18650Y Performance Insights

Defy Temperature Limits:  
Consistent Power Anywhere.

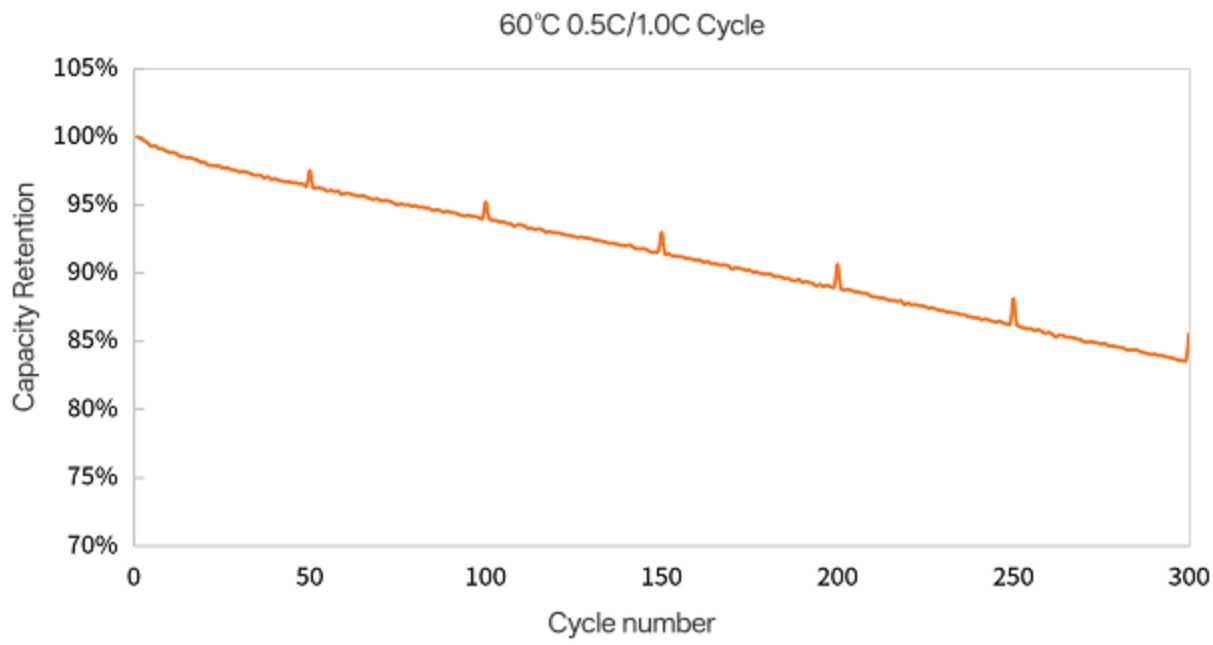
## Rate discharge



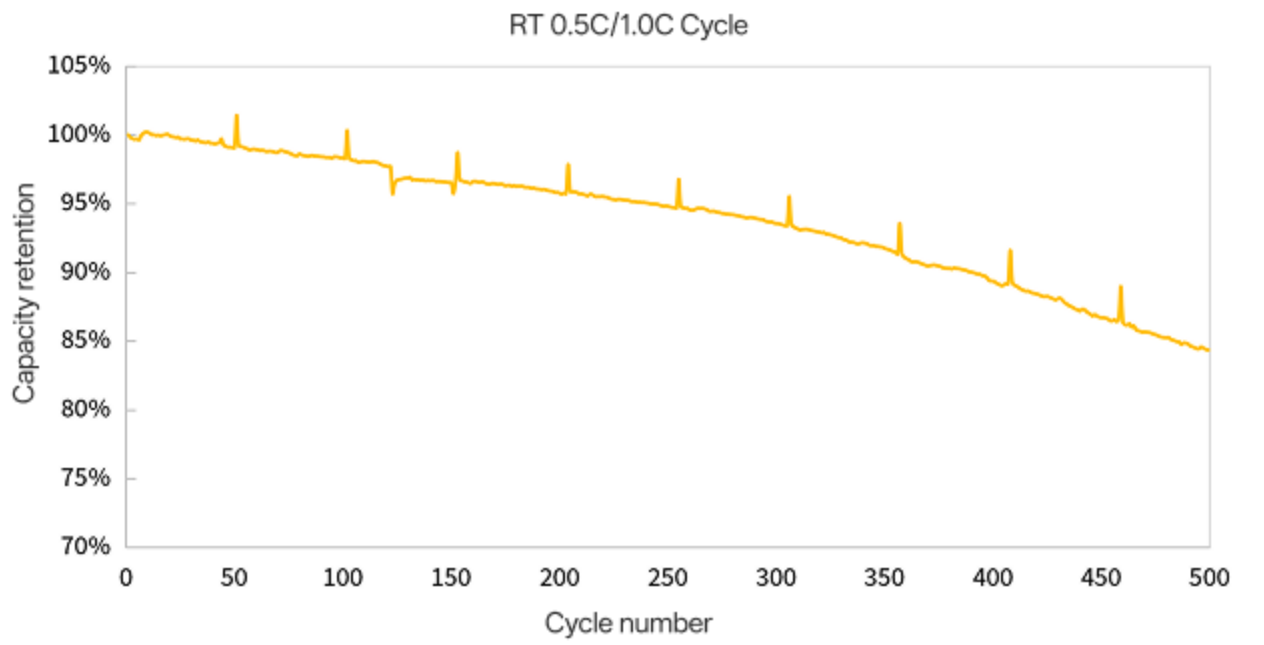
## Discharge at different temperature



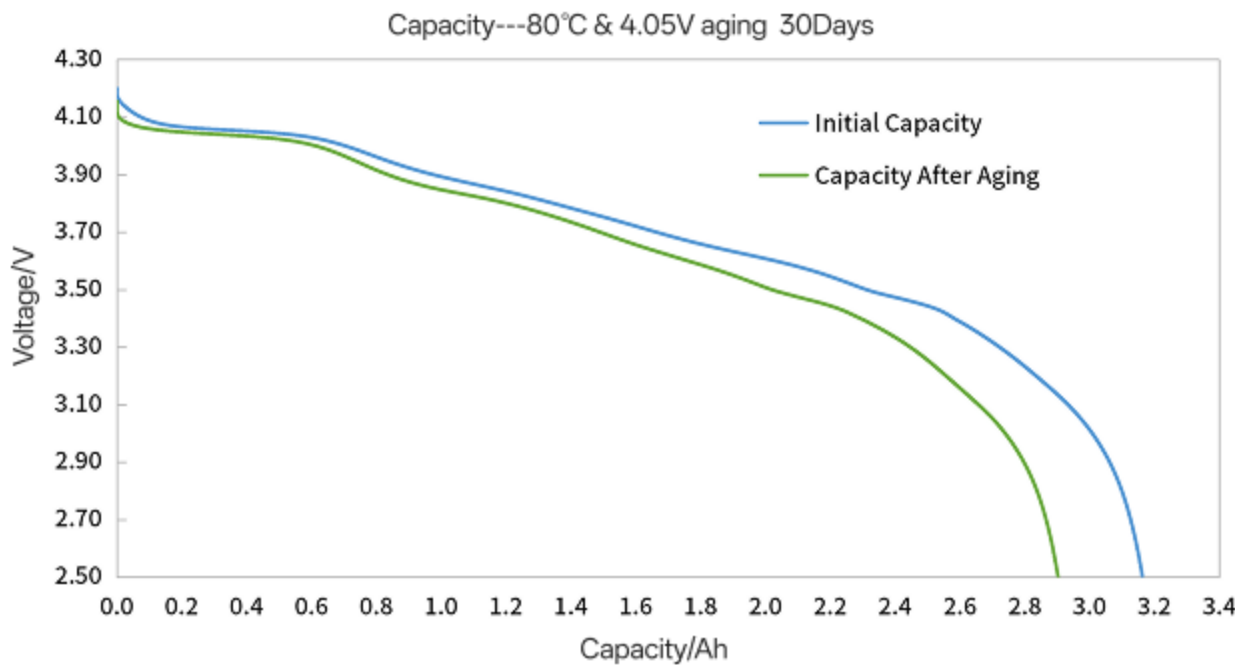
## Cycle at high temperature



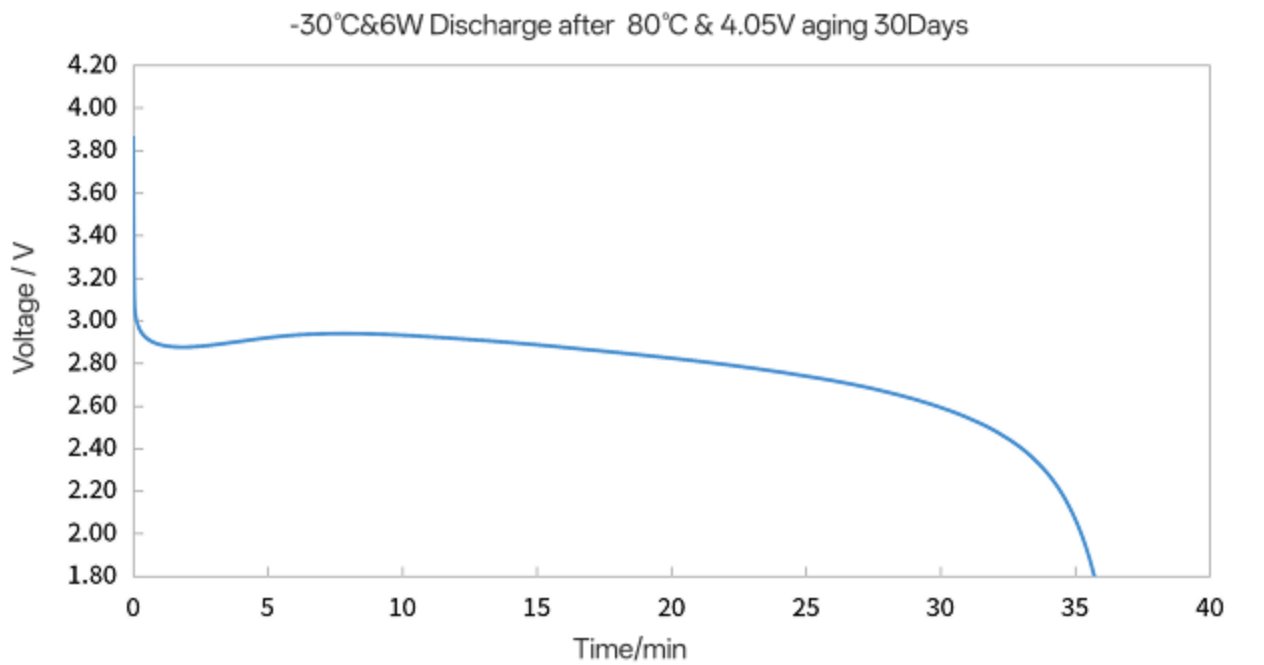
## Cycle at room temperature



## 80°C&4.05V aging



## 80°C&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.







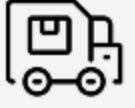
## Stable Energy for Outdoor Surveillance

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.



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Years  
Battery Expertise

# 50+

Countries  
Global Reach

# 38

Invention Patents

# 6

 Lines

Of Automated Production

# 100+

International Trusted Partnerships

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