

PLCB32D3L8ABKA

Rechargeable Lithium-Ceramic Battery

Ultra-Safe

High Energy

Higher Space Usage Efficiency

Benefits

- Ultra-Safe and Good Heat-Dissipation.
- High Energy Density and Capacity.
 - By large foot-print battery cells and max. cell volume.
- Modular cost decrease.
 - Simplified cooling system, thermal management and BMS.
- Wide Operational Window -20°C~60°C.
- Long Cycle Life
- Higher Space Usage Efficiency. Able to be set in any possible place.
- Fast Charge Capability.

Key features

- Ultra-Safe.
 - No fire, no smoke and no leakage after physical impact.
 - Hazard Level 1~3 passed.
- High Energy Density.
 - 600Wh/L and 240Wh/Kg in 2019
 - 816Wh/L and 310Wh/Kg in 2022
- High Stability (Storage)
 - Storage at 85°C/14 days, recovery > 98%, Swelling ratio <10%
 - Storage at 105°C/14 days. (@3,8V~4.0V)
 - Storage at -40°C/3 months, recovery > 98%. No salt out.
 - Storage at -65°C/1 month, recovery > 98%. No salt out.
- High Stability (Operation)
 - Able to be charged at -30~85°C
 - Able to be discharged at -40~90°C.
- Long Cycle Life: 1500th >80%
- Fast Charge Capability: 2C CC/CV >80% in 30 mins.

Main applications

- BEV/E-Bike
- Industrial / Rugged Tablet/ ESS
- Medical Tablet, AIO PC
- High Safety Required Applications

Transportation and storage:

- Store in a dry place at a temperature preferably not exceeding 30°C.
- For long-term storage, keep the battery within a (30 ± 15) % state of charge.



Electrical characteristics

| | |
|-------------------|-----------|
| Nominal capacity | 11000 mAh |
| Nominal voltage | 3.65 V |
| Operating voltage | 4.25~2.5V |
| Energy Density | 450 Wh/L |

Mechanical characteristics

| | |
|-----------------|----------|
| Thickness (max) | 3.3 mm |
| Width (max) | 133.5 mm |
| Length (max) | 218.5 mm |
| Typical weight | 220 g |

Operating conditions

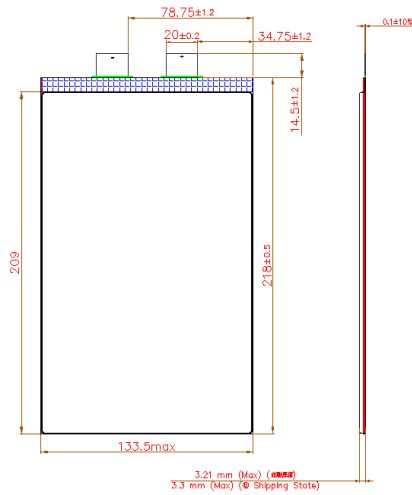
| | |
|------------------------|--|
| Standard charge | CC-CV (Constant Current & Constant Voltage) Current 0.2CmA/ Voltage 4.25V Cut-off current: 0.05C |
| Max charge current* | 1C |
| Standard discharge | CC (Constant Current) Current 0.2CmA Cut-off voltage: 2.5V |
| Max discharge current* | 1C |
| Operation window** | - 20°C to + 60°C |
| Cycle Life (recommend) | SOC80% (4.2V) to DOD95% (3.3V) |

* Consult ProLogium for increasing charging/discharging current.

** Consult ProLogium for optimized charging below -20°C

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2D Drawing



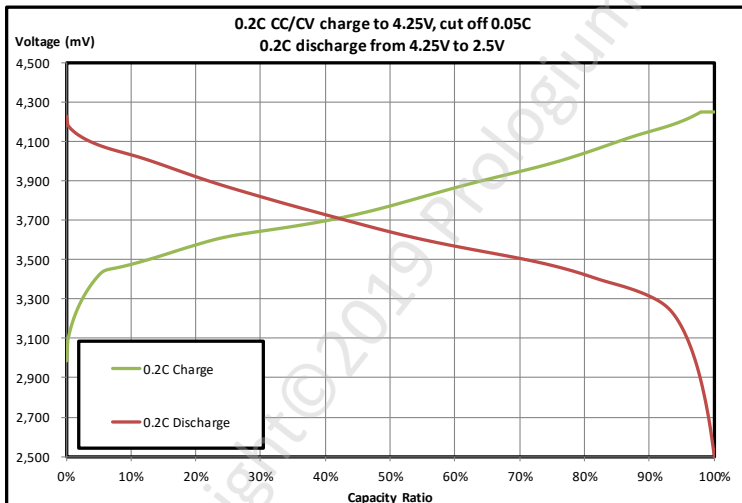
Unit: mm
Tolerances : ±0.5mm

When handling ProLogium batteries:

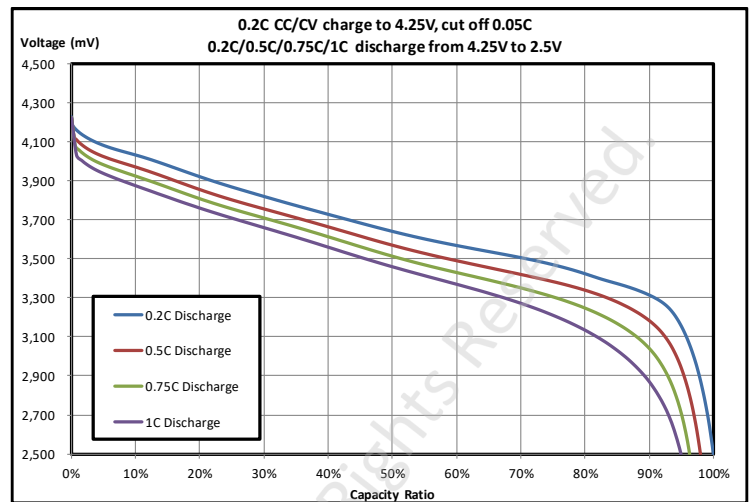
- Do not throw the battery into fire, nor heat.
- Do not disassemble nor modify.
- Do not leave in a place of $\geq 60^{\circ}\text{C}$.
- Prevent from water or moisture.
- Do not add strong shock, nor drop.
- Do not solder lead directly to battery body.
- Do not short + and - terminals with metal.
- Do not charge beyond the condition which described on the delivery specification.
- Do not inverse charge.

Typical characteristics:

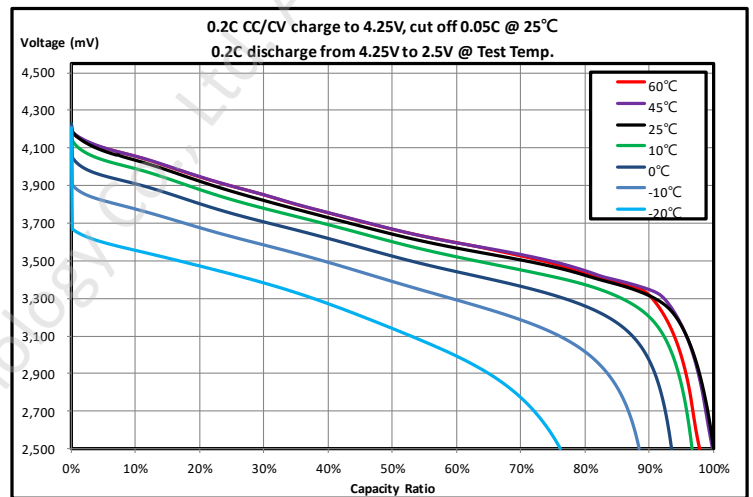
Charge/Discharge Profile



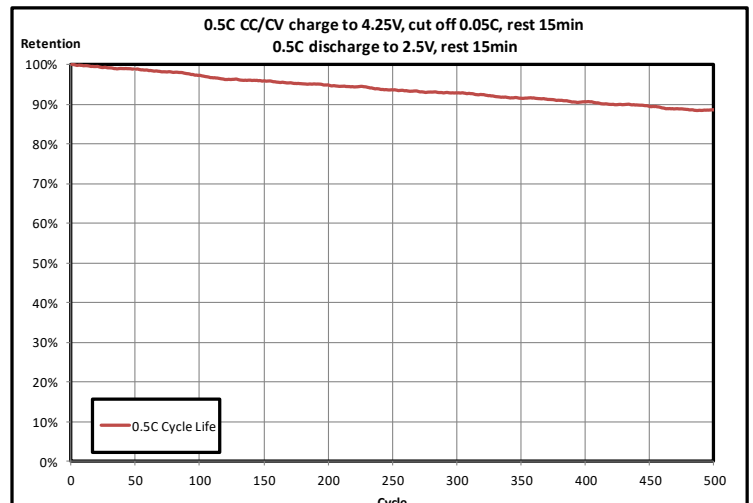
Discharge profiles (0.2/0.5/0.75/1C rate)



Operation Temperature Test (-20°C to +60°C)



Cycle Life Test



*charge/discharge/cycle tests criteria: @room temp. (25°C)