# Lithium-Ion Dry Cell Product Specification

Product Model: CU-PO-LD-8SG101

Version: V2.0

Release Date: 20260420

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## 1. Basic Product Information

| Item | Specification | |
|---|---|---|
| Cell Model | 425868 | |
| Nominal Voltage | 3.7V | |
| Nominal Capacity | ≥900mAh (0.2C) | |
| Dimensions (L × W) | 130mm × 75mm | |
| Electrochemical System | 811/Gr | |
| Active Material Content | 811 94.0% | Gr 95.7% |
| Single-Side Coating Areal Density (mg/cm²) | 811 15.10 | Gr 9.95 |
| Electrode Compaction Density (g/cc) | 811 3.35 | Gr 1.50 |
| Cell Structure | Stacked | |
| Recommended Electrolyte Filling Amount | 4.0g | |
| Recommended Electrolyte | KLD-1230C | |

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## 2. Charge/Discharge Parameters

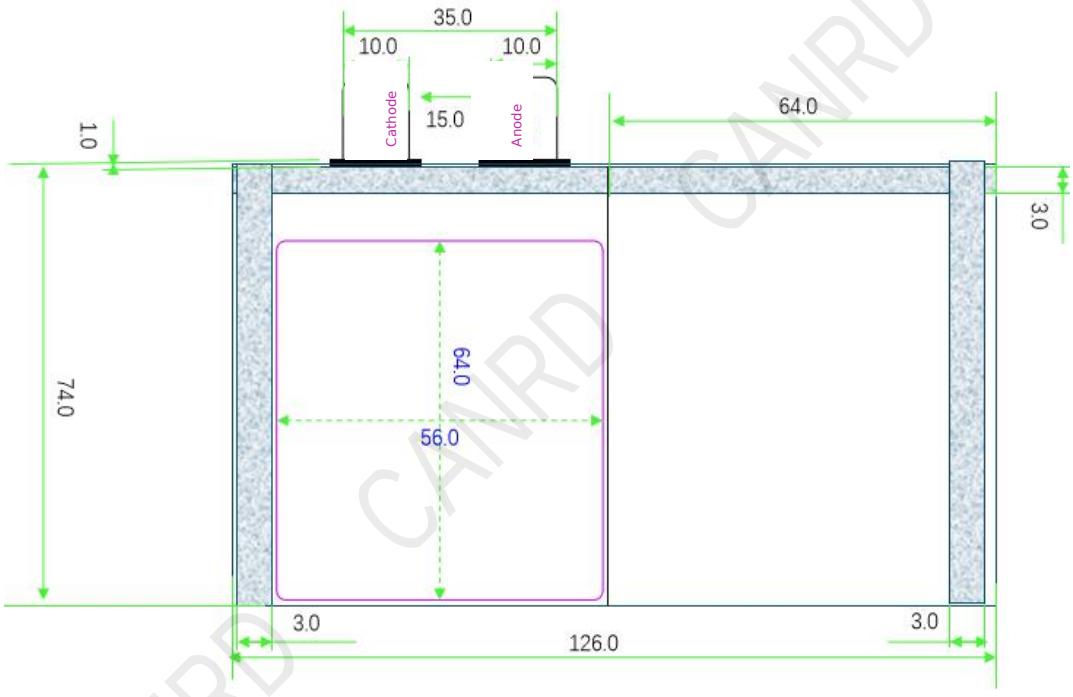
| | |
|---|---|
| Charge Voltage: 4.2V | Standard Charge Current: 0.5C |
| Discharge Cut-off Voltage: 3.0V | Standard Discharge Current: 1.0C |

## 3. Environmental Adaptability

| Item | Parameter Range |
|---|---|
| Charging Operating Temperature | 10°C - 60°C |
| Discharging Operating Temperature | 0°C - 45°C |
| Storage Temperature | 25°C (Recommended) |
| Relative Humidity | ≤85% RH (Non-condensing) |

## 4. Appendix

Dimensional Drawing:

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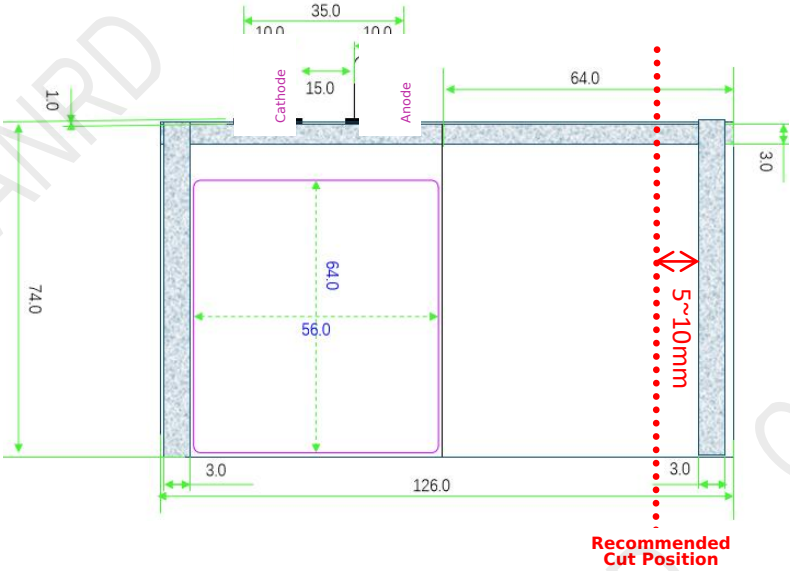
# 5. Post-Processing of Dry Cell

The following instructions use manual electrolyte filling as an example and must be performed in a dry room or glovebox. The orientation shown below is the front side of the cell.

1) Inspection: Before operation, inspect the entire cell for abnormalities, such as: ① broken tabs; ② gas leakage; ③ damage to the aluminum-laminated pouch, etc.

2) Create electrolyte filling port: Cut an electrolyte filling port 5-10 mm from the edge of the gas pouch. PS:

**Strongly recommended: retain part of the gas pouch during the first filling!!**




3) Electrolyte filling: Using the diagram on the right as a reference, rotate the cell 90° counterclockwise and place it vertically with the cut gas-pouch opening facing upward (a battery storage box may be used for support). Then place the cell on a balance and tare it. Use a pipette / disposable dropper to take an appropriate amount of electrolyte and inject it through the filling port.

4) Vacuum resting: Place in a vacuum resting chamber, evacuate to ≤ -85 kPa, and rest for 3 min.

5) Vacuum pre-sealing: Vacuum seal at ≤ -85 kPa.

6) Measure OCV after electrolyte filling: Before charge/discharge, the open-circuit voltage is around 0 V (depending on the chemistry, it may be positive or negative).

7) Resting: Recommended to rest at room temperature for 48 h or at 45°C for 24 h. Depending on cell size, electrolyte wetting and filling amount, the temperature and time may be adjusted appropriately according to actual requirements.

8) After resting, see below for the recommended formation and capacity grading (first charge/discharge / activation) procedure.

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# 6. Recommended Formation and Capacity Grading Procedure:

## 6.1 With Hot-Press Formation and Capacity Grading:

Formation step: 75°C, 0.9 MPa,

1) Rest 60 min (to allow the cell body to reach 75°C);

2) Charge at 0.2C CC for 14 min, then stop;

3) Rest 3 min;

4) Charge at 0.5C CC for 74 min, then stop;

Allow the cell body to cool to 25°C, then degas and perform secondary sealing.

Capacity grading step: 25°C, atmospheric pressure (if the gas pouch is retained after degassing, apply 0.2 MPa pressure during capacity grading).

1) Rest 3 min;

2) Charge at 0.5C CC-CV to 4.20 V, cut-off current 0.02C;

3) Rest 3 min;

4) Discharge at 0.2C CC to 3.00 V;

(Complete the first charge/discharge cycle and calculate initial Coulombic efficiency.)

## 6.2 Without Hot-Press Formation and Capacity Grading:

NEWARE test system: 25°C, 0.2 MPa;

1) Rest 3 min;

2) Charge at 0.05C CC to 4.20 V;

3) Rest 3 min;

4) Discharge at 0.05C CC to 3.00 V;

(Complete the first charge/discharge cycle and calculate initial Coulombic efficiency.)

6.3 Note: If the cell will remain in a waiting-for-test state for a long time after capacity grading, another half-charge is recommended after capacity grading.

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