

Lithium-Ion Battery Dry Cell Product Specification

Product Model: CU-PO-L1-8SG101

Version: V2.0

Release Date: 20260420

1. Basic Product Information

Item	Specification	
Cell Model	425868	
Nominal Voltage	3.7 V	
Nominal Capacity	>=1000 mAh (0.2C)	
Dimensions (L x W)	130 mm x 75 mm	
Electrochemical System	811/Gr	
Active Material Content	811 94.5%	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 (7 Cathodes, 8 Anodes)	
Recommended Electrolyte Filling Amount	4.0 g	
Recommended Electrolyte	KLD-1230C	

2. Charge/Discharge Parameters

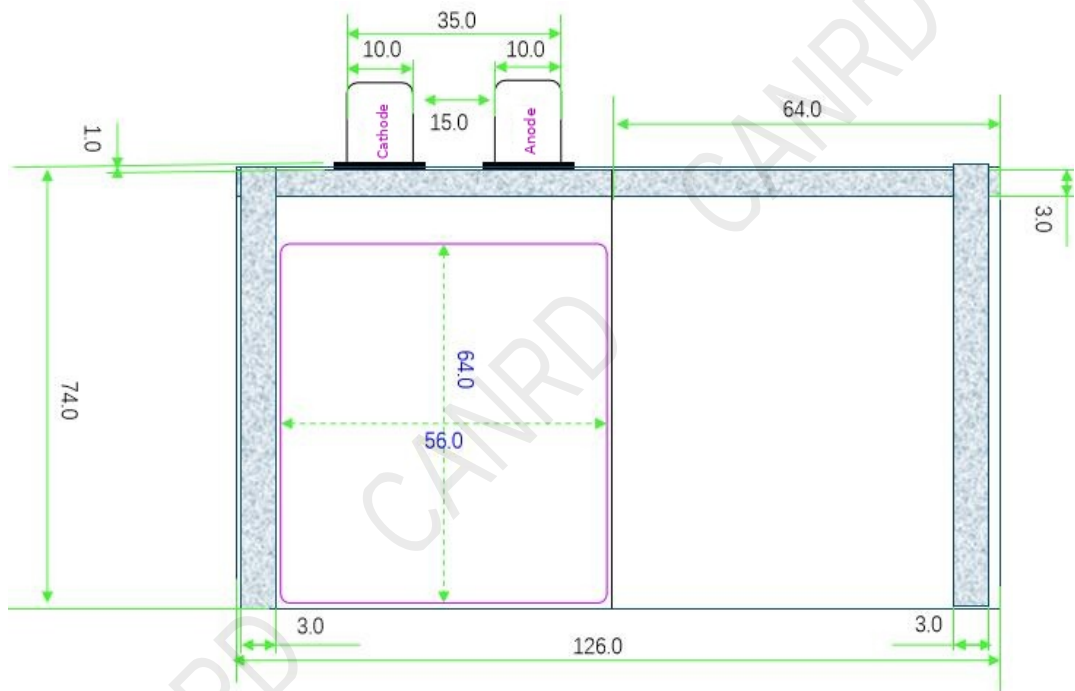
Charge Voltage: 4.2 V	Standard Charge Current: 0.5C
Discharge Cut-off Voltage: 3.0 V	Standard Discharge Current: 1.0C

3. Environmental Adaptability

Item	Parameter Range
Charge Operating Temperature	10°C - 60°C
Discharge Operating Temperature	0°C - 45°C
Storage Temperature	25°C (Recommended)
Relative Humidity	<=85% RH (Non-condensing)

4. Drawing

Dimension Diagram:



5. Post-Processing of Dry Cell

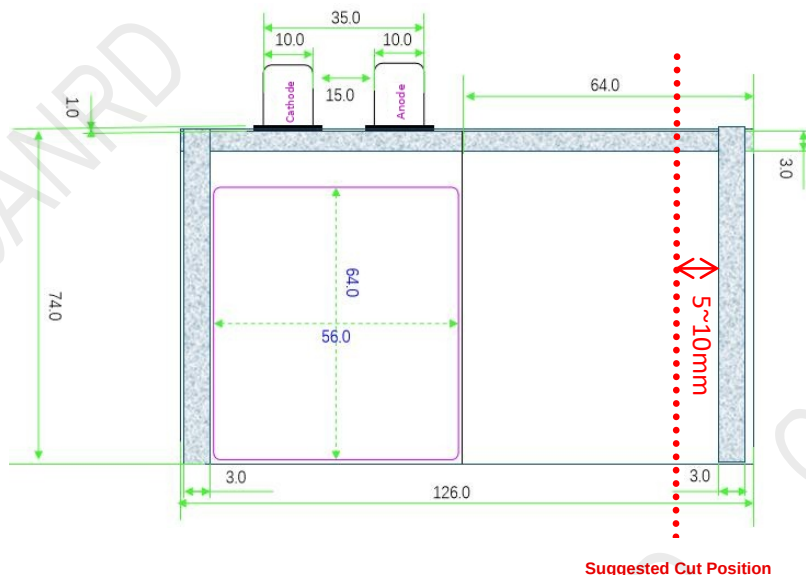
The following procedure uses manual electrolyte filling as an example and must be performed in a dry room or glovebox.

The cell orientation shown is the front side.

1) Inspection: Before operation, check the cell for abnormalities such as broken tabs, gas leakage, or damaged aluminum-laminated pouch.

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

Strongly recommended: retain part of the gas pocket during the first electrolyte filling.



3) Electrolyte filling: Rotate the cell 90° counterclockwise from the orientation shown, with the cut gas-pocket opening facing upward (a cell holder may be used). Place it vertically, tare the balance, and use a pipette/disposable dropper to add the required electrolyte through the filling port.

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

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

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

7) Resting: Recommended 48 h at room temperature or 24 h at 45°C. Adjust temperature and time as appropriate based on cell size, electrolyte wetting, and filling amount.

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

6. Recommended Formation and Capacity Grading Procedure:

6.1 With Hot-Press Formation and Capacity Grading:

Formation Steps: 75°C, 0.9 MPa

- 1) Rest 60 min (allow the cell body to reach 75°C);
- 2) Charge at 0.2C CC for 14 min;
- 2) Rest 3 min;
- 3) Charge at 0.5C CC for 74 min;

After the cell body cools to 25°C, degas and perform second sealing.

Capacity Grading: 25°C, ambient pressure (apply 0.2 MPa during grading if the gas pocket is retained after degassing).

- 1) Rest 3 min;
- 2) Charge at 0.5C CC-CV to 4.20 V, cutoff current 0.02C;
- 2) Rest 3 min;
- 3) 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 tester: 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 long-term standby is required after grading, perform one additional half-charge.

Charge/Discharge Curve:

