

Lithium-Ion Dry Cell Product Specification

Product Model: CU-PO-LF-20G105

Version: V2.0

Release Date: 20260420

1. Basic Product Information

Item	Specification	
Cell Model	425868	
Nominal Voltage	3.2V	
Nominal Capacity	≥1500mAh (0.2C)	
Dimensions (L x W)	130mm x 75mm	
Electrochemical System	LFP/Gr	
Active Material Content	LFP 95.7%	Gr 96.5%
Single-Side Coating Areal Density (mg/cm ²)	LFP 15.04	Gr 6.68
Electrode Compaction Density (g/cc)	LFP 2.35	Gr 1.65
Cell Structure	Wound	
Recommended Electrolyte Filling Amount	9.0g	
Recommended Electrolyte	KLD-LFP01	

2. Charge/Discharge Parameters

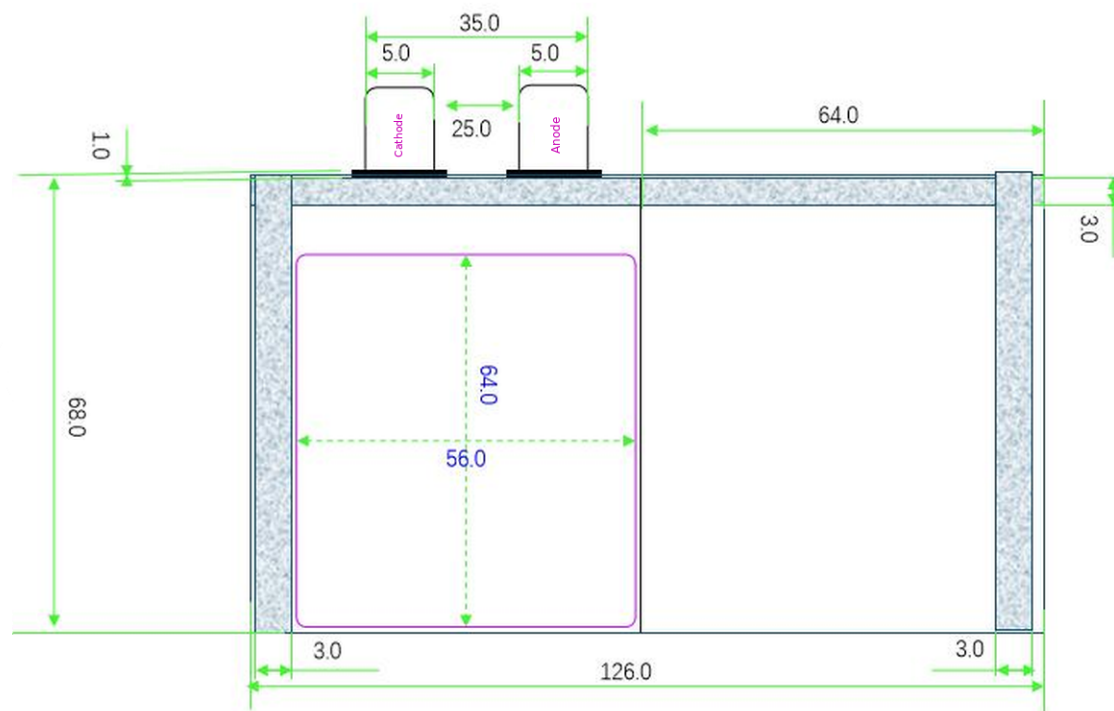
Charge Voltage: 3.65V	Standard Charge Current: 0.5C
Discharge Cut-off Voltage: 2.50V	Standard Discharge Current: 1.0C

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

Dimensional Drawing:



5. Post-Processing of Dry Cell

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

The cell orientation shown in the figure is the front side of the cell.

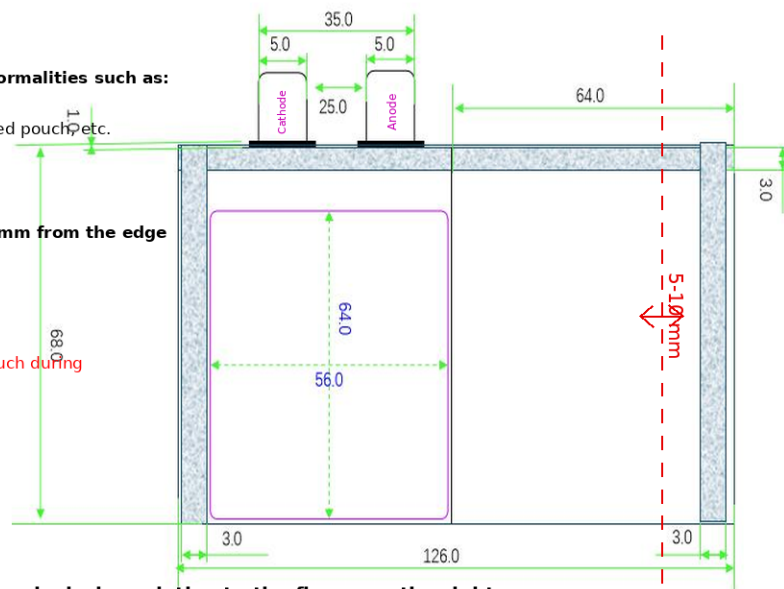
1) Inspection: Before operation, check the cell for abnormalities such as:

(1) broken tabs; (2) leakage; (3) damaged aluminum-laminated pouch, etc.

2) Make Electrolyte Filling Port: Cut a filling port 5-10 mm from the edge

of the gas pouch.

Note: It is strongly recommended to retain part of the gas pouch during the first electrolyte filling!!



3) Electrolyte Filling: Rotate the cell 90° counterclockwise relative to the figure on the right,

with the cut gas-pouch opening facing upward (a battery holder/box may be used for support), and place it vertically.

Then place it on a balance and tare it; use a pipette/disposable dropper to add an appropriate amount of electrolyte through the filling port.

4) Vacuum Soaking: 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: In the uncharged/undischarged state, OCV 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. Depending on cell size, electrolyte wetting,

and filling amount, temperature and time may be reasonably adjusted according to actual requirements.

8) Formation and Capacity Grading After Resting (first charge/discharge / activation): See the recommended procedure below.

6. Recommended Formation and Capacity Grading Procedure

6.1 With Hot-Press Formation and Capacity Grading:

Formation Steps: 45°C, 0.9 MPa

- 1) Rest 60 min (allow the cell body to reach 45°C);
- 2) Charge at 0.1C CC for 18 min;
- 3) Rest 3 min;
- 4) Charge at 0.16C CC for 140 min;

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

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

- 1) Rest 3 min;
- 2) Charge at 0.5C CC-CV to 3.65V, cutoff current 0.02C;
- 2) Rest 3 min;
- 3) Discharge at 0.2C CC to 2.00V;

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

6.2 Without Hot-Press Formation and Capacity Grading:

Neware Battery Tester: 25°C, 0.2 MPa;

- 1) Rest 3 min;
- 2) Charge at 0.05C CC to 3.65V;
- 3) Rest 3 min;
- 4) Discharge at 0.05C CC to 2.00V;

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

6.3 Note: If the cell remains on standby for a long period after grading, one additional half-charge after grading is recommended.