

Lithium-Ion Dry Cell Product Specification

Product Model: CU-PO-LE-10G101

Version No.: V2.0

Release Date: 20260420

1. Basic Product Information

Item	Specifications	
Cell Model	425868	
Nominal Voltage	3.87V	
Nominal Capacity	1200mAh (0.2C)	
Dimensions (L x W)	130mm*75mm	
Electrochemical System	4.45V LCO/Gr	
Active Material Content	LCO 96.7%	Gr 96.9%
Single-Side Coating Areal Density (mg/cm2)	LCO 12.60	Gr 7.86
Electrode Compaction Density (g/cc)	LCO 4.10	Gr 1.50
Cell Structure	Stacked (9 Cathode / 10 Anode)	
Recommended Electrolyte Filling Amount	5g	
Recommended Electrolyte	KLD-5V06	

2. Charge/Discharge Parameters

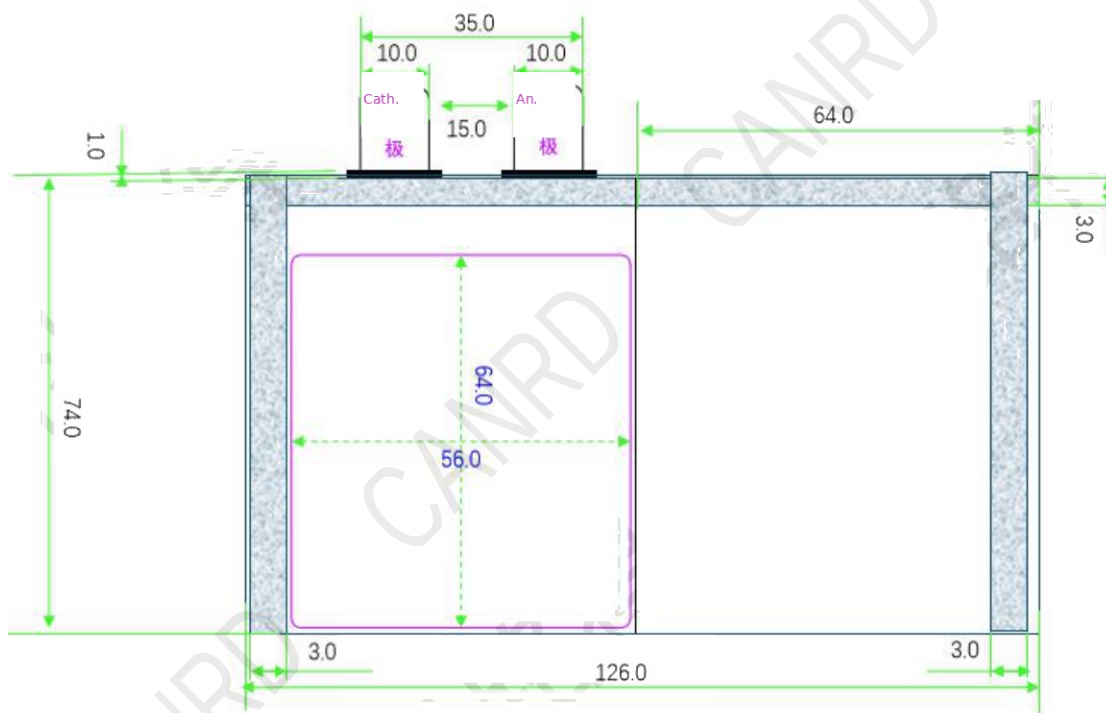
Charge Voltage: 4.45V	Standard Charge Current: 0.5C
Discharge Cut-off Voltage: 3.0V	Standard Discharge Current: 1.0C

3. Environmental Conditions

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. Appendix

Dimensional Diagram:



5. Post-Processing of Dry Cell

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

Front side of the cell.

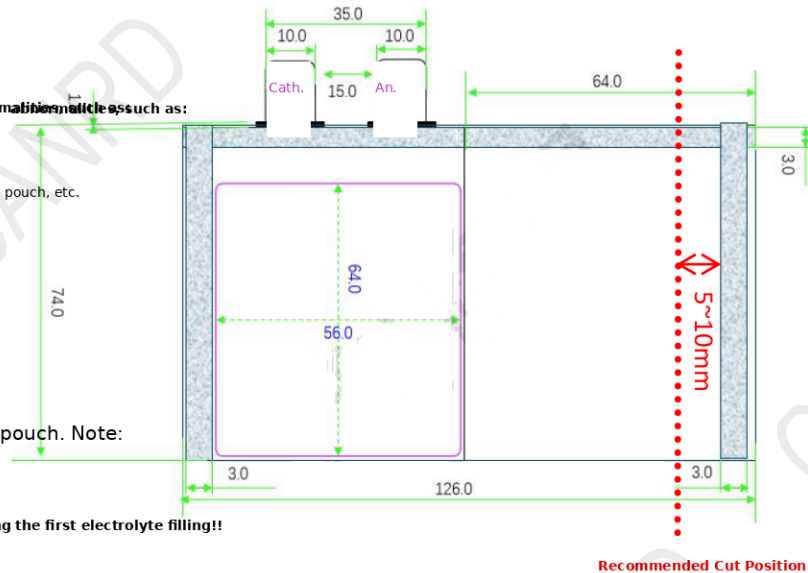
1) Inspection: Before operation, inspect the entire cell for abnormalities such as:

(1) broken tabs; (2) gas leakage; (3) damage to the aluminum-laminated pouch, etc.

2) Create electrolyte filling port:

Cut an opening 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 degrees counterclockwise from the orientation shown on the right,

with the cut gas pouch opening facing upward (a battery storage box may be used for support), and place it vertically. Then place the cell on a balance,

tare to zero, and use a pipette/disposable dropper to inject the appropriate amount of electrolyte through the filling port.

4) Vacuum Rest: 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 filling: In the uncharged/un-discharged state, the OCV is around 0 V (depending on chemistry,

it may be positive or negative).

7) Rest: Recommended to rest for 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 adjusted as needed.

8) After resting, perform formation and capacity grading (first charge/discharge / activation). See recommended steps 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) 0.2C CC charge for 14 min, then stop;

2) Rest 3 min;

3) 0.5C CC charge for 74 min, then stop;

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

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

1) Rest 3 min;

2) 0.2C CC-CV charge to 4.45 V, cut-off current 0.02C

2) Rest 3 min;

3) 0.2C CC discharge to 3.00 V;

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

6.2 Without Hot-Press Formation:

Neware test system: 25 C, 0.2 MPa;

1) Rest 3 min;

2) 0.05C CC charge to 4.45 V;

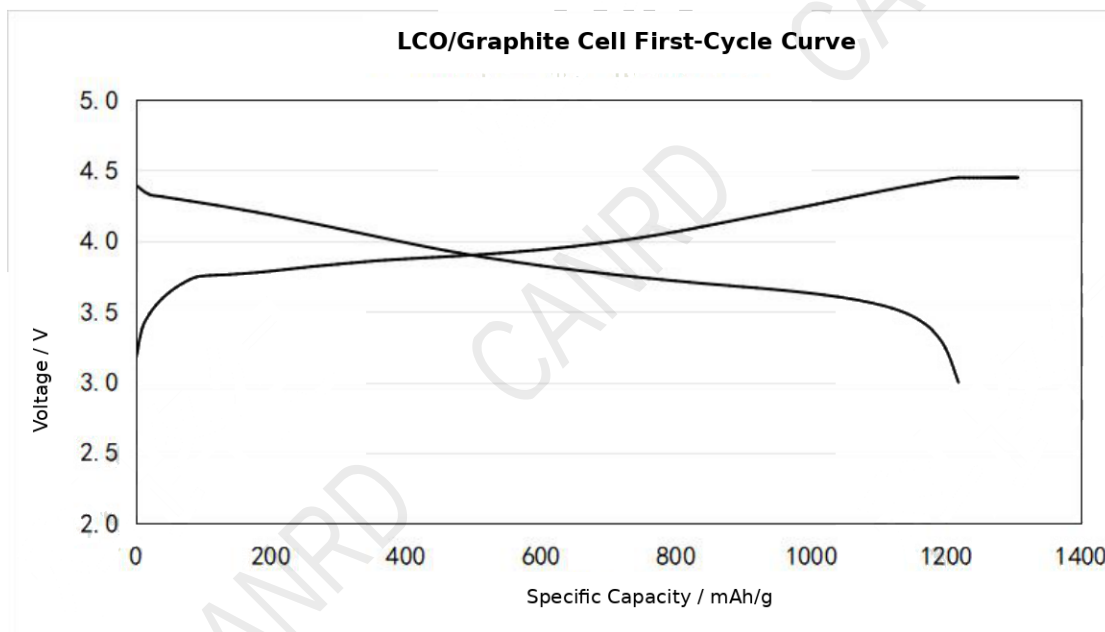
3) Rest 3 min;

4) 0.05C CC discharge to 3.00 V;

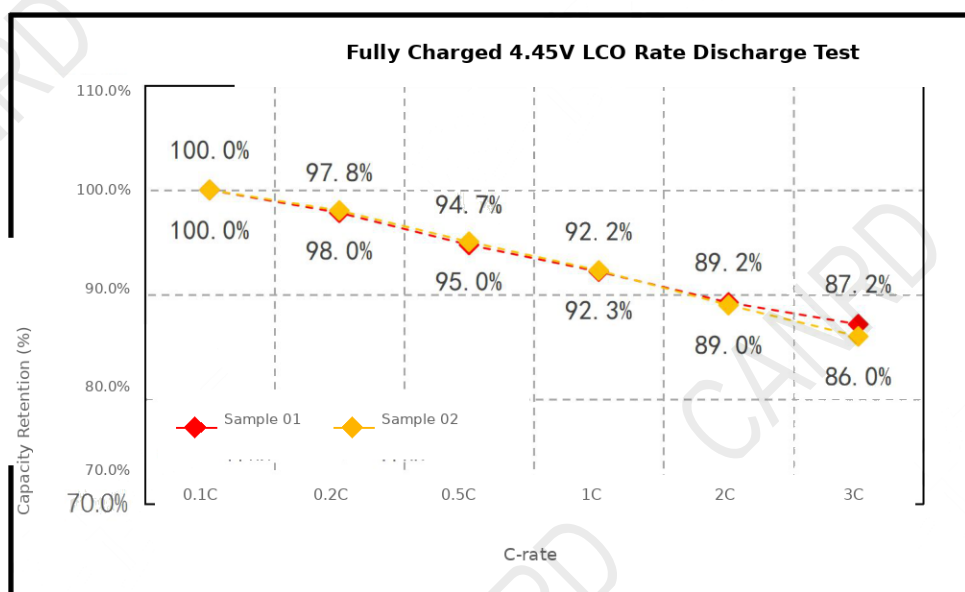
(Complete the first charge/discharge cycle and calculate initial coulombic efficiency)

6.3 Note: If the cell must remain in a waiting-to-test state for an extended period after capacity grading, perform an additional half-charge after grading.

Charge/Discharge Curve:



Rate Performance:



Cycling Performance:

