

Product Specification

Lithium Polymer Batteries



Model: LGX1074170C-30C-16000-6S1P	Version No. A-0	Issue date: June 30, 2026
Prepared by	Verified by	Approved by

1. Scope

This document describes the performance characteristics and testing methods for lithium polymer batteries produced by LithoGenix GmbH.

2. Product Type and Model Number

2.1 Product Type

Lithium Polymer Battery Pack

2.2 Model Number

LGX1074170C-30C-16000-6S1P

3. Specifications

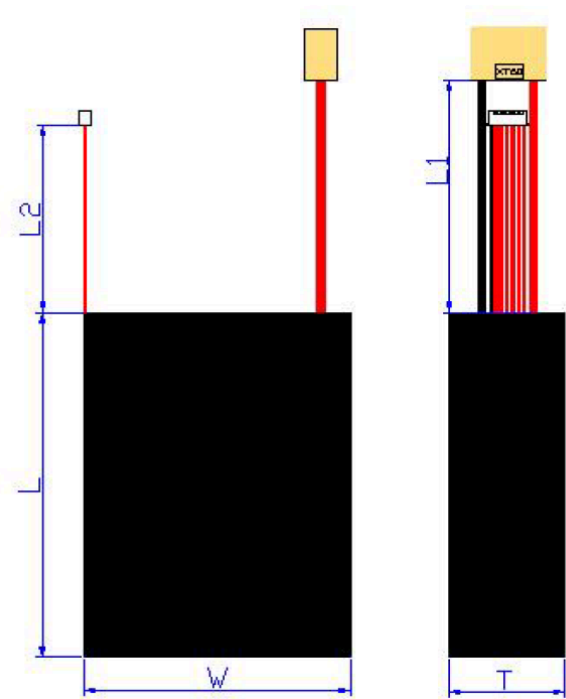
No.	Item	Characteristics	Criteria
3.1	Nominal Capacity	Nominal: 16000mAh Minimum: 15600mAh	The nominal capacity is measured with discharge current of 0.2C at 23±2°C.
3.2	Nominal Voltage	22.2V	
3.3	Cut-off Voltage	18V	
3.4	Charge Voltage	25.2 ± 0.12 V	
3.5	Charge Current	Standard charge: 0.2 C (3.2 A) Rapid charge: 0.5 C (8 A)	
3.6	Charge Time	Standard charge : 6.0 hours (Ref.) Rapid charge: 3.0 hours (Ref.)	
3.7	Maximum Charge Current	1.0 C (16 A)	
3.8	Continuous Discharge Current	10.0 C (160 A) The original connector is not rated for this current.	≤ 60 S
3.9	Maximum Discharge Current	30.0 C (480 A) The original connector is not rated for this current.	≤ 1 S
3.10	Resistance	≤ 12 mΩ	1kHz AC Method
3.11	Weight (Approx.)	1850 g	
3.12	Dimensions(T.W.H.)	Thickness: 64.0 max mm Width: 77.0 max mm Length: 183 max mm	

3.13	Operating Temperature	Charge	0 ~ 45℃
		Discharge	0 ~ 45℃
3.14	Storage Condition	≤1 month: 0℃~35℃ >1 month: 0℃~25℃	

Note:

Standard Charging method 0.2C(3200 mA) CC (constant current) charge to 25.2 V, then CV(constant voltage 25.2 V) charge till charge current decline to ≤ 0.03C (480 mA) .

4. Outline Dimensions



L≤183mm

W≤77mm

T≤64mm

L1=100±5mm

L2=100±5mm

Part List

No.	Part Name	Description	Quantity
1	Cell	LGX-1074170C-30C-16000mAh	6
2	Wire	JST-XHR-7P Reverse Ultra soft 22#	1
		XT90-S-F Ultra soft 10#	1
3	PCB	/	/
4	PVC		1

5. Appearance

There shall be no such defects as scratch, discoloration, leakage which may adversely affect commercial value of the cell.

6. Standard Test Conditions

6.1 Environmental Conditions

Unless otherwise specified, all tests stated in this specification are conducted at temperature $25\pm5^{\circ}\text{C}$ and humidity $60\pm20\%$.

6.2 Measuring Equipment

(1) Ammeter and Voltmeter

Standard class specified in the national standard or more sensitive class

(2) Slide caliper

The slide caliper should have 0.02 mm scale.

(3) Impedance meter

The impedance meter with AC 1kHz should be used.

7. Characteristics

7.1 Standard Discharge Capacity

The standard discharge capacity is the initial discharge capacity of the cell, which is measured with discharge current of 3200 mA with 18.0 V cut-off at $25\pm5^{\circ}\text{C}$, within 1 hour after the standard charge.

$$\text{Standard Discharge Capacity} \geq 15600 \text{ mAh}$$

7.2 Cycle Life

Each cycle is an interval between the charge at CC-CV (8 A - 25.2 V) for 3h and the discharge (discharge current 8 A) with 18.0 V cut-off. After 300 cycles, measure capacity under the same condition in 7.1.

$$\text{Capacity} \geq 12480 \text{ mAh (80\% of the capacity at } 25^{\circ}\text{C)}$$

7.3 Initial internal impedance

Initial internal impedance measured at AC 1kHz after 50% charge.

$$\text{Initial internal impedance} \leq 12 \text{ m}\Omega$$

7.4 Storage Characteristics

Capacity after storage for 28 days at 25°C from the standard charge, measured with discharge current 3200 mA with 18 V cut-off at 25°C .

$$\text{Capacity retention (after the storage)} \geq 13260 \text{ mAh (85\% of the capacity at } 25^{\circ}\text{C)}$$

7.5 Status of the cell as of ex-factory

The cell should be shipped in 50% charged state. In this case, OCV is not less than 22.8 ~ 23.8 V.

8. Mechanical Characteristics

8.1 Drop Test

Test method: (as of shipment or full charged) drop onto concrete ground from 1.0m height at a random direction 6 times.

Criteria: No fire, and no explosion.

8.2 Vibration Test

Test method: After standard charging, fixed the cell to vibration table and subjected to vibration cycling that the frequency is to be varied at the rate of 1Hz per minute between 10Hz and 55Hz, the excursion of the vibration is 1.8mm. The cell shall be vibrated for 30 minutes per axis of XYZ axes.

Criteria: No fire, and no explosion.

9. Warranty

LithoGenix will be responsible for replacing the cell against defects or poor workmanship for 12 months from the date of shipping. Any other problem caused by malfunction of the equipment or mix-use of the cell is not under this warranty.

10. Others

10.1 Storage for a long time

If the cell is kept for a long time (3months or more), it is strongly recommended that the cell is preserved at temperature range (0-25°C), low humidity, no corrosive gas atmosphere.

10.2 Other

Any matters that this specification does not cover should be conferred between the customer and LithoGenix.

Appendix

Proper Use and Handling of Lithium Ion Polymer (LIP) battery

1. General

This document has been prepared to describe the appropriate cautions and prohibitions, which the customer should take or employ when the customer uses and handles the Lithium Ion Polymer (LIP) battery to be manufactured and supplied in order to obtain optimum performance and safety. **LithoGenix will take no responsibility for any accident when the cell is used under other conditions than those described in this Document.**

2. Charge

2.1 Charge current: Charge current should not more than the maximum charge current specified in the Product

Specification (normally 0.5C-1.0C or lower). Charging with higher current may damage the cell or even lead to safety problem, e.g. overheating or leakage.

2.2 Charge voltage: Charge voltage shall not more than that specified in the Product Specification (4.2V/cell). 4.25V is the maximum charging voltage for each cell. Never charge the battery in series and be sure that each single cell has a separated charging circuit with a max. Charging voltage of 4.25V or the battery may be overcharged, The user is fully responsible to the result of misusing the battery.

2.3 Charge temperature: The cell should be charged within the range of temperatures specified in the product specification. Stop charging immediately when the surface temperature of the battery is over 45°C.

2.4 Reverse charging: Please make sure the polarities of cells are connected properly before charging is strictly prohibited. Reverse charging cannot charge the cells but will deteriorate their charging/discharging and safety characteristics, or even lead to fire or explosion.

3. Discharging

3.1 Discharge current: The cell shall be discharged at the current no more than the maximum discharging current specified in the Product Specification. Over current discharging may damage the battery and cause over-heat.

3.2 Operation temperature: Use the battery within the temperature range specified in the Product Specification. Stop using when temperature is over 60°C.

3.3 Over-discharge: Over-discharge will deteriorate the cell's performance and characteristics. Do not over-discharge a battery below 2.75V/cell.

4. Storage

If you intend to keep the battery for a long time (3months or longer), it is strongly recommended that the battery shall be stored under the environment with temperature 10-25 °C, low humidity and without corrosive gas. The battery should be charged every six months to ensure that each cell's storage voltage is 3.6~3.9V.

5. Others

The aluminum packing foil is very soft that it will be easily left scratches. Please do not hit the cell with any sharp edge parts.

Do not fall, hit or bend the battery. It may cause fire or explosion.

Short circuit the battery is strictly prohibited; it may damage the battery seriously.

Never disassemble the battery. It may cause fire.

Never dispose of the battery in fire. It is very dangerous and strictly prohibited.

To immerge the battery into liquid such as water is strictly prohibited.

Avoid vibration, shock or extrude the battery. Handle carefully when moving it.

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