



**ENIX ENERGIES**

VER: 1.0

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DATE: 2016-09-07

# Super Li-ion Battery Specification

**MODEL:** [ACL9062](#)  
(3.2V/1300mAh)

Prepared By/Date	Checked By/Date	Approved By/Date
2016-09-07		2016-09-07

Customer Approval	<b>Signature/Date</b>
	<b>Company Name</b>
	<b>Company Stamp</b>



**1 Scope**

This specification is applied to the reference battery in this Specification.

**2 Product Specification**

**2.1 Characteristic**

Table 1

No.	Item	General Parameter		Remark
		Typical		
1	Rated Capacity	Typical	1300mAh	Standard discharge (1.0C C) after Standard charge
		Minimum	1200mAh	
2	Nominal Voltage	3.2V		Mean Operation Voltage
3	Internal Impedance	≤30mΩ		Charged to about 70% of capacity
4	Balance charger standard charge	Constant Current 650mA (0.5C) end Voltage 3.7V 25mA cut-off		Charge time : Approx 2.5h
5	Standard discharge	Constant current 1300mA (1C) end voltage 2.3V		
6	Balance charger fast charge	Constant Current 1300mA (1C) end Voltage 3.7V 25mA cut-off		Charge time : Approx 1.5h
7	Maximum Continuous Discharge Current	10A		
8	Operation Temperature Range	Charge: 0~40°C		60±25%R.H. Bare Cell
		Discharge: -10~70°C		
9	Storage Temperature Range	Less than 1 year: -10~20°C		60±25%R.H. at the shipment state
		less than 3 months: -10~45°C		



### 2.2 Cycle Life

Table 2

No.	Item	Criteria	Test Conditions
1	Cycle Life (0.5 C)	Higher than 80% of the Initial Capacities of the Cells	Carry out >1000cycle Charge: 0.5C to 3.7V Discharge: 0.5C to 2.3V Temperature:25±3°C

### 3. Temperature Dependence of discharge capacity

Table 3

Discharge Temperature	-10°C	0°C	25°C	70°C
Discharge Capacity (0.2C <sub>5A</sub> )	70%	80%	100%	95%

### 4. Protection circuit

The battery pack is not equipped with a PCM, customers in the use of should be effective protective measures to prevent the batteries used in the process of filling appeared, discharge, the flow short circuit of the case.



**5. Cell Mechanical characteristics and Safety Test**

Table 5

(Safety Test)

Item	Battery Condition	Test Method	Requirements
Vibration Test		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 an 55Hz, the excursion of the vibration is 1.6mm. The cell shall be vibrated for 30 minutes per axis of XYZ axes.	No leakage  No fire
Crush	Fresh, Fully charged	Crush between two flat plates. Applied force is about 13kN(1.72Mpa) for 30min.	No explosion, No fire
Short Circuit 20°C	Fresh, Fully charged	Each test sample battery, in turn, is to be short circuited by connecting the (+) and (-) terminals of the battery with a Cu wire having a maximum resistance load of 0.05 Ω .Tests are to be conducted at room temperature(20±2°C ).	No explosion No fire the temperature of the surface of the Cells are lower than 150°C
Impact	Fresh, Fully charged	A 56mm diameter bar is inlayed into the bottom of a 10kg weight. And the weight is to be dropped from a height of 1m onto a sample battery and then the bar will be across the center of the sample.	No explosion, No fire
Forced Discharge	Fresh, Fully charged	Discharge at a current of 1 C <sub>5</sub> A for 2.5h.	No explosion, No fire

**6. Handling of Cells**

6.1 Cell fixing

The cell should be fixed to the battery pack by its large surface area.

No cell movement in the battery pack should be allowed. (Forbidden to shake the +/- pins of battery)!

6.2 Inside design

No sharp edge components should be insides the pack containing the LIP cell.



6.3 Battery soldering

Electric soldering iron bit temp.: 320~350°C

Soldering time > 3S

6.4 Special Instruction:

**The “+” or “-” pin of Huahui Super Li-ion Battery shall never be touched with battery shell to form circuit; otherwise the battery will be damaged.**

**7. Others**

7.1 Prohibition of disassembly

- 1) Never disassemble the cells

The disassembling may generate internal short circuit in the cell, which may cause gassing, firing, explosion, or other problems.

- 2) Electrolyte is harmful

LIP battery should not have liquid from electrolyte flowing, but in case the electrolyte come into contact with the skin, or eyes, physicians shall flush the electrolyte immediately with fresh water and medical advice is to be sought.

7.2 Prohibition of dumping of cells into fire

Never incinerate nor dispose the cells in fire. These may cause explosion of the cells, which is very dangerous and is prohibited.

7.3 Battery cells replacement

The battery replacement shall be done only by either cells supplier or device supplier and never be done by the user.

7.4 Please do not exceed the specification range using the battery.

**8. Period of Warranty**

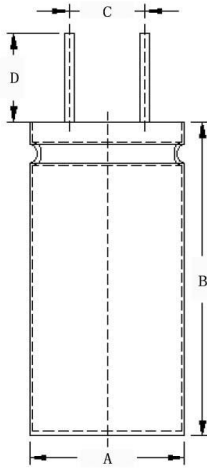
The period of warranty is 1 year from the date of shipment. Hunan Huahui new energy guarantees to give a replacement in case of cells with defects proven due to manufacturing process instead of the customer abuse and misuse.

**9. Storing the Batteries**

The batteries should be stored at room temperature, charged to about 30% to 50% of capacity. We recommend that batteries be charged about once per half a year to prevent over discharge.

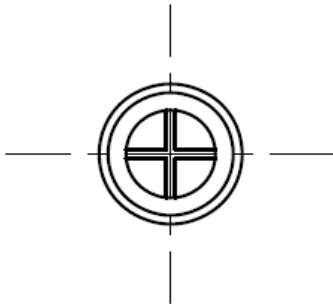


10. Initial Dimension:



mm	$\pm 0.2$
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A	18.7
B	65.8
C	7.8
D	$\varnothing 1.0*12$



Units				Weight	37±2G		
					L		
D	MAX	W		MAX	H	MAX	
Drawer		Checked		Approved		Date	
				<b>DRAWING</b>			
				Drawing ID			