Specification Approval Sheet

Name : Battery Lithium-Ion Button Cell

Model : AKYGA LIR2330-0.04M

SPEC : 3.6V / 40mAh

Specification Modification Records

Modification Time	Descriptions	Issued Date	Approved By
	Release 1	2022-09-05	

Content

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Specification Approval sheet

1. Preface:

The purpose of this product specification is to provide technical information for the rechargeable Lithium-ion button battery LIR2330, manufactured and supplied by Akyga.

2. Description and Model

2.1 Description	Rechargeable Lithium-ion button battery
2.2 Model	LIR2330-0.04M

3. Specification

3.1 Capacity	40±5mAh
3.2 Charging Voltage	4.20V
3.3 Nominal Voltage	2.75V at 0.2C mA
3.4 Standard Charging Method	Constant current: 8mA constant voltage 4.20V
3.5 Cut-off Discharge Voltage	2.75V
3.6 Max.Discharge Current	40mA
3.7 Max.Charge Current	40mA
3.8 Cycle Life	>500 cycles at 0.2C mA discharge
3.9 Ambient Temperature	
for Standard Charge	0˚C~45˚C
for Discharge	-20˚C~60˚C
3.10 Storage	
for within the temperature	-20˚C~60˚C
for within the humidity	≤75%
3.11 Energy Density	
Wh/L	
Wh/Kg	
3.12 Weight of Bare Cell	~2.7 g
3.13 Charge State Internal Impedance	≤600mΩ

4. Appearance

Appearance shall be free from any remarkable scratch,flaws, rust, discoloration or electrolyte leakage (visible or by smell).

5. Standard Test condition

5.1 Environment Conditions: Unless otherwise specified,all test stated in this Product Specification are conducted within the temperature 15~25℃ and the humidity 45~85%RH.

5.2 Test Equipment:

Impedance meter: The impedance meter with AC 1kHz should be used.

6. Test Procedure and Its Standard

Item	Measuring Procedure	Standard
6.1 Appearance	Visual	No Defect and Leak
6.2 Dimension	Caliper	As item 8
6.3 Weight	Scale	As item 3.12
6.4 Maximum Charge Current	CCCV(Constant Current Constant Voltage)	40mA
6.5 Full charge	CC/CV	Charge it with 0.2CmA constant current till 4.2V(Max), then charge it with constant voltage 4.2V until the charging current drops to 0.01C.
6.6 Open Circuit Voltage	Within 1hr after full charge,measure Open circuit voltage	>4.15V
6.7 Internal Impedance	Measure the battery with 1kHz AC	≤600mΩ
6.8 Discharge Capacity	Within 1hr after full charge,discharge until final discharge,at 0.2C mA and measure the capacity	>40mAh
6.9 Maximum Discharge Current	Until final discharge voltage	40mA
6.10 Charge/Discharge Cycle Life	Discharge:0.2CmA to 3.00V, This charge/discharge shall be repeated 500 times Charge:CCCV,CC-0.2CmA,CV- 4.2V until the CC is below 0.8mA.	Discharge capacity should be >70% of item 6.8
6.11 Leakage Proof	After full charging,the battery shall be stored at 40±2℃ and humidity 80±5% for 21 days.	No leakage should be observed by visual inspection
6.12 Temperature Characteristics	1) After full charge at 20±5℃, stand at -20±2℃ for 18hrs, then discharge at 0.2C mA and measure the capacity. 2) After full charge at 20±5℃, stand at 55±2℃ for 2hrs, then discharge at 1C mA and measure the capacity.	Discharge capacity should be>60% of item 6.8 and no abnormality on its appearance and structure
6.13 Charge Retention	After full charging, stand at 20±5 ℃ discharge capacity for 28 days, measure the discharge should be>85% of item capacity according to item 6.8.	

7. Dimension(Bare cell) mm