Specification Approval Sheet

Customer Name: _____

Customer Model: _____

Model: VIA21700

Capacity: 4000mAh

Date 2024/01/15

Prepared by	Checked by	Approved by

Customer Approved (Stamp)	Test by	Checked by	Approved by

Amendment Records

Revision	Description	Prepared By	Approved By	Date
A/0	First Publish			2024/01/15

Content

1. Scope

This specification defines the technical requirements for Lithium ion battery.

2. Model

Cell Model INR21700 4000

3. Reference Standard

GB/T 18287、GB/T31241、UL1642 、IEC61960、IEC62133

4. Cell Specification

No.	Item	General Parameter	Remark
1.	Typical capacity	4000mAh	0.5C charge CCCV 80mA 0.2C discharge for cut-off 2.5V
2	Minimum Capacity	3955mAh	0.5C charge 0.2C discharge for cut-off
3	Nominal Voltage	3.7V	0.5C charge 0.2C discharge for cut-off
4	Internal Impedance	≤12mΩ	AC Impedance （at 1000Hz、30%SOC）
5	Single battery weight	≤ 68 g	
6	Limited charge current	4.20V±0.05V	
7	Cut-off Voltage	2.5 V	
8	Standard charge current	2000mA	0.5C
9	Max charge current	6000mA	1.5C
10	Max Continuous discharging current	40000mA	10C With 75℃ temperature cut
11	Max. Pulse Discharge Current	80000mA	20C 2s pulse
12	Operating Temperature (surface temperature)	0℃＜T≤50℃	Charge

		0℃＜T≤50℃	Charge
		-20℃＜T≤75℃	Discharge
13	Storage Temperature	-20℃～45℃	3 months 3
		-20℃～25℃	1 year
14	Cell Dimension	Height ≤70.4mm	Standard Height of battery (include PET)
		Diameter ≤21.3mm	Standard Diameter of battery（include PET）

4. Product Endurance

No.	Items	Test Method and Condition	Criteria
1	Standard charge	Charge to 4.2V at constant current 0.5C (2A), then constant voltage charge to taper current 80mA	The cell shall be charge at 25±3℃ and 45%-85%RH
2	Discharge	After standard charge, the cell shall be discharge till the voltage discharge to 2.5V by 0.2C (800mA)	The cell shall be discharge at 25±3℃
3	Cycle Life 25±3℃	Charge: 4A CCCV to4.2V by 0.08A cut-off, rest 10min. Discharge: 20A to 2.5V or 75℃ cut off, rest 30min Repeat the procedures 300 cycles	ResidueCapacity≥80%
4	Discharge rate capabilities	Standard charged then rest for 30mins and discharge at 0.8A/2A/20A/30A/40A to the discharge cut-off voltage 2,5V, then rest for 30mins. Charge/discharge cycle can be conducted for 3 times before meeting the Standards the same below	0.8A≥3955mAh 2A≥3920mAh 20A≥3850mAh 30A≥3800mAh 40A≥3750mAh