



中国认可
检测
TESTING
CNAS L2914

Report No.:DGMSZ25B27LD001

UN38.3 检测报告

UN38.3 Test Report

样品名称:	可充锂离子电池 ARB-L21-6000B
Sample Name:	Rechargeable Li-ion Battery ARB-L21-6000B
型号规格:	ARB-L21-6000B 3.6V 6000mAh 21.6Wh
Model:	
委托单位:	深圳市朗恒照明技术股份有限公司
Applicant:	FENIXLIGHT LIMITED
检测项目:	高度模拟、温度试验、振动、冲击、外部短路、撞击、过度充电、强制放电
Test Items:	Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Impact, Overcharge, Forced discharge
检测类别:	委托检测
Test Category:	Commission test

北京迪捷姆空运技术开发有限公司

Beijing DGM Air Transport Technology Development Co., Ltd.

报告书使用约定

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1. 本公司依据委托人（托运人或其代理人）提供的物品，做出检测并出具此报告书。

The report is issued by DGM China according to the test of the goods and the information of its shipping provided by the applicant (shipper or his agent).

2. 依据检测的需要，本公司要求委托人提供真实、完整的样品及资料。

According to the demand of test, DGM China requires the applicant to provide true and exact sample and data of the goods.

3. 委托人保证申报的物品和/或提供的样品与交运的货物是一致的。

The applicant guarantees that the declared goods and/or the sample who provides should be identical with the contents of cargo that is to be transported.

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邮编：

Address: room 249, BGS cargo Terminal, Cargo Road, Capital international
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Postcode: 101300

电话：
Tel: 010-69479673

传真：
Fax: 010-69479621

网址：
Website: www.dgmchina.com.cn

邮箱：
E-mail: test@dgmchina.com.cn

深圳分公司 深圳市宝安机场航空物流园航站四路 2039 号物流大厦 421 室

邮编

Address Room 421 Logistics Building, Air Logistics Zone Bao'an International
Airport, Shenzhen, Guangdong, China

Postcode 518128

电话 0755-29910550

邮箱: szdgm@dgmchina.com.cn

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样品类型 Sample Type	单电芯锂离子电池 Single Cell Li-ion Battery		商标 Trademark	FENIX
			型号/规格 Model	ARB-L21-6000B 3.6V 6000mAh 21.6Wh
委托单位 Applicant	名称 Name	深圳市朗恒照明技术股份有限公司 FENIXLIGHT LIMITED		
	地址 Address	深圳市宝安区西乡街道凤凰岗社区水库路 111 星宏科技园 A 栋厂房西侧 2 层、3 层 2F/3F, West of Building A, Xinghong Technology Park, 111 Shuiku Road, Fenghuanggang Community, Xixiang Street, Bao'an District, Shenzhen City, Guangdong Province, China		
来样方式 Means of Receiving	委托方送样 Submitted by applicant		送样日期 Accepted Date	2025-02-27
检测日期 Test Date	2025-02-27~2025-03-18			
检测地点 Test Site	深圳实验室 Shenzhen Laboratory		出证地点 Certificate Site	深圳分公司 Shenzhen Branch
检测项目 Test Items	高度模拟、温度试验、振动、冲击、外部短路、撞击、过度充电、强制放电 Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Impact, Overcharge, Forced discharge			
检测依据 Test Method	联合国《试验和标准手册》(第 8 版) 38.3 节 UN "Manual of Tests and Criteria" ST/SG/AC.10/11/Rev.8/Subsection 38.3			
检测结论 Conclusion	根据联合国《试验和标准手册》(第 8 版) 38.3 节的规定, 该样品通过所有项目检测, 符合该条款的性能要求。 The samples have passed all test items of UN "Manual of Tests and Criteria" ST/SG/AC.10/11/Rev.8/Subsection 38.3. 检测单位(盖章) Test Lab(Stamp) 签发日期(Issue Date): 2025 年 03 月 21 日			

检测:

Tested by:

审核:

Checked by:

批准:

Approved by:

电池信息 Information for Battery			
电芯生产厂家 Cell manufacturer	江西远东锂电有限公司 Jiangxi Far East LIB Co.,Ltd		
电芯厂家联系电话 Phone number	18879557683	邮箱 e-mail	/
电芯厂家地址 Address	江西省宜春市经济技术开发区 39 号 NO.39,Jingfa Rd, Economic Development Dist, Yichun City, Jiangxi Prov, China		
电芯厂家网址 Website	https://www.febbattery.com/		
Pack 厂家 Pack manufacturer	深圳市优能电源技术有限公司 Shenzhen Your Power Technology Co.,Ltd		
Pack 厂家联系电话 Phone number	13316805820	邮箱 e-mail	Darren.huang@yourpower.cn
Pack 厂家地址 Address	深圳市龙华区龙光玖钻商务中心 4B1206 4B1206 of LongGuang JiuZhuan business Center, longhua district, Shenzhen		
Pack 厂家网址 Website	www.yourpower.cn		

电芯参数 Information for cell			
电芯型号 Cell Model	FEB21700-6000mAh		
标称电压 Nominal Voltage	3.6V	额定容量 Rated Capacity	6000mAh
标准充电电流 Standard Charging Current	1200mA	标准放电电流 Standard discharging Current	1200mA
最大连续充电电流 Maximum charging current	6000mA	最大放电电流 Maximum discharge current	10000mA
充电限制电压 Limited charging voltage	4.2V	放电截止电压 Cut-Off voltage	2.5V
外观形状 Appearance	紫色近圆柱体 Approximate Purple Cylinder	电芯尺寸 Cell size	Φ21.62×71.08mm

电池参数 Information for battery			
标准充电电流 Standard charging current	1200mA	标准放电电流 Standard discharging current	1200mA
最大连续充电电流 Maximum charging current	6000mA	最大放电电流 Maximum discharge current	10000mA
充电限制电压 Limited charging voltage	4.2V	放电截止电压 Cut-Off voltage	2.5V
型号/规格 Model	ARB-L21-6000B 3.6V 6000mAh 21.6Wh	电池尺寸 Battery size	Φ21.83×76.77mm
组成电芯数量 Number of cell	1 个电芯 one cell	外观形状 Appearance	橙黑杂色近圆柱体 Approximate Orange And Black Cylinder

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序号 No.	检测项目 Test Items	标准要求或标准条款 Standard Requirement or the Clause of Standard	检测结果 Test Result	单项评价 Conclusion	备注 Remark
1	高度模拟 Altitude Simulation	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.1	无泄漏、无排气、无解体、无破裂、无起火， 试验后的开路电压不低于试验前的 90%。 No leakage, no venting, no disassembly, no rupture and no fire. The open circuit voltage of each battery after testing is not less than 90% of its voltage immediately prior to this procedure.	符合 Pass	/
2	温度试验 Thermal Test	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.2	无泄漏、无排气、无解体、无破裂、无起火， 试验后的开路电压不低于试验前的 90%。 No leakage, no venting, no disassembly, no rupture and no fire. The open circuit voltage of each battery after testing is not less than 90% of its voltage immediately prior to this procedure.	符合 Pass	/
3	振动 Vibration	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.3	无泄漏、无排气、无解体、无破裂、无起火， 试验后的开路电压不低于试验前的 90%。 No leakage, no venting, no disassembly, no rupture and no fire. The open circuit voltage of each battery after testing is not less than 90% of its voltage immediately prior to this procedure.	符合 Pass	/
4	冲击 Shock	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.4	无泄漏、无排气、无解体、无破裂、无起火， 试验后的开路电压不低于试验前的 90%。 No leakage, no venting, no disassembly, no rupture and no fire. The open circuit voltage of each battery after testing is not less than 90% of its voltage immediately prior to this procedure.	符合 Pass	/
5	外部短路 External Short Circuit	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.5	外壳温度不超过 170 °C，无解体、无破裂、无 起火。 External temperature does not exceed 170°C. No disassembly, no rupture and no fire.	符合 Pass	/
6	撞击 Impact	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.6	外壳温度不超过 170 °C，无解体、无起火。 External temperature does not exceed 170°C. No disassembly, no fire.	符合 Pass	/
7	过度充电 Overcharge	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.7	无解体、无起火。 No disassembly, no fire.	符合 Pass	/
8	强制放电 Forced Discharge	ST/SG/AC.10/11/Rev.8/ Subsection 38.3 Test T.8	无解体、无起火。 No disassembly, no fire.	符合 Pass	/
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T.1: 高度模拟

T.1: Altitude Simulation

样品编号 Sample No.	样品状态 Sample Status	检测前 Pre-test		检测后 After-test				有无泄漏、排气、 解体、破裂、起火 Leakage, Venting, Disassembly, Rupture, Fire(Yes/No)
		质量 Mass m ₁ (g)	开路电 压 OCV V ₁ (V)	质量 Mass m ₂ (g)	质量损失 Mass Loss (%)	开 路 电 压 OCV V ₂ (V)	剩余电压 Residual OCV (%)	
A1	首次完全充电 First cycle fully charged	77.796	4.145	77.796	0.000	4.140	99.88	No
A2	首次完全充电 First cycle fully charged	78.242	4.154	78.236	0.008	4.148	99.86	No
A3	首次完全充电 First cycle fully charged	77.913	4.150	77.913	0.000	4.144	99.86	No
A4	首次完全充电 First cycle fully charged	77.665	4.145	77.664	0.001	4.139	99.86	No
A5	首次完全充电 First cycle fully charged	77.793	4.144	77.792	0.001	4.140	99.90	No
A6	25 次完全充电 25 cycles fully charged	78.166	4.144	78.166	0.000	4.143	99.98	No
A7	25 次完全充电 25 cycles fully charged	77.878	4.144	77.877	0.001	4.141	99.93	No
A8	25 次完全充电 25 cycles fully charged	78.167	4.126	78.161	0.008	4.122	99.90	No
A9	25 次完全充电 25 cycles fully charged	78.273	4.130	78.271	0.003	4.125	99.88	No
A10	25 次完全充电 25 cycles fully charged	78.001	4.145	78.001	0.000	4.143	99.95	No
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T.2: 温度试验

T.2: Thermal Test

样品编号 Sample No.	样品状态 Sample Status	检测前 Pre-test		检测后 After-test				有无泄漏、排气、 解体、破裂、起火 Leakage, Venting, Disassembly, Rupture, Fire(Yes/No)
		质量 Mass	开路电压 OCV	质量 Mass	质量损失 Mass Loss	开路电压 OCV	剩余电压 Residual	
		m ₁ (g)	V ₁ (V)	m ₂ (g)	(%)	V ₂ (V)	OCV (%)	
A1	首次完全充电 First cycle fully charged	77.796	4.140	77.788	0.010	4.091	98.82	No
A2	首次完全充电 First cycle fully charged	78.236	4.148	78.234	0.003	4.094	98.70	No
A3	首次完全充电 First cycle fully charged	77.913	4.144	77.904	0.012	4.094	98.79	No
A4	首次完全充电 First cycle fully charged	77.664	4.139	77.656	0.010	4.093	98.89	No
A5	首次完全充电 First cycle fully charged	77.792	4.140	77.785	0.009	4.092	98.84	No
A6	25 次完全充电 25 cycles fully charged	78.166	4.143	78.157	0.012	4.096	98.87	No
A7	25 次完全充电 25 cycles fully charged	77.877	4.141	77.872	0.006	4.086	98.67	No
A8	25 次完全充电 25 cycles fully charged	78.161	4.122	78.156	0.006	4.080	98.98	No
A9	25 次完全充电 25 cycles fully charged	78.271	4.125	78.267	0.005	4.082	98.96	No
A10	25 次完全充电 25 cycles fully charged	78.001	4.143	77.996	0.006	4.096	98.87	No
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T.3: 振动

T.3: Vibration

样品编号 Sample No.	样品状态 Sample Status	检测前 Pre-test		检测后 After-test				有无泄漏、排气、 解体、破裂、起火 Leakage, Venting, Disassembly, Rupture, Fire(Yes/No)
		质量 Mass m ₁ (g)	开路电压 OCV V ₁ (V)	质量 Mass m ₂ (g)	质量损失 Mass Loss (%)	开路电压 OCV V ₂ (V)	剩余电压 Residual OCV (%)	
A1	首次完全充电 First cycle fully charged	77.788	4.091	77.788	0.000	4.091	100.00	No
A2	首次完全充电 First cycle fully charged	78.234	4.094	78.232	0.003	4.094	100.00	No
A3	首次完全充电 First cycle fully charged	77.904	4.094	77.904	0.000	4.093	99.98	No
A4	首次完全充电 First cycle fully charged	77.656	4.093	77.656	0.000	4.093	100.00	No
A5	首次完全充电 First cycle fully charged	77.785	4.092	77.783	0.003	4.092	100.00	No
A6	25 次完全充电 25 cycles fully charged	78.157	4.096	78.156	0.001	4.096	100.00	No
A7	25 次完全充电 25 cycles fully charged	77.872	4.086	77.871	0.001	4.086	100.00	No
A8	25 次完全充电 25 cycles fully charged	78.156	4.080	78.154	0.003	4.080	100.00	No
A9	25 次完全充电 25 cycles fully charged	78.267	4.082	78.267	0.000	4.082	100.00	No
A10	25 次完全充电 25 cycles fully charged	77.996	4.096	77.994	0.003	4.095	99.98	No
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T.4: 冲击

T.4: Shock

样品编号 Sample No.	样品状态 Sample Status	检测前 Pre-test		检测后 After-test				有无泄漏、排气、 解体、破裂、起火 Leakage, Venting, Disassembly, Rupture, Fire(Yes/No)
		质量 Mass $m_1(g)$	开路电压 OCV $V_1(V)$	质量 Mass $m_2(g)$	质量损失 Mass Loss (%)	开路电压 OCV $V_2(V)$	剩余电压 Residual OCV (%)	
A1	首次完全充电 First cycle fully charged	77.788	4.091	77.787	0.001	4.091	100.00	No
A2	首次完全充电 First cycle fully charged	78.232	4.094	78.232	0.000	4.093	99.98	No
A3	首次完全充电 First cycle fully charged	77.904	4.093	77.904	0.000	4.093	100.00	No
A4	首次完全充电 First cycle fully charged	77.656	4.093	77.655	0.001	4.093	100.00	No
A5	首次完全充电 First cycle fully charged	77.783	4.092	77.782	0.001	4.092	100.00	No
A6	25 次完全充电 25 cycles fully charged	78.156	4.096	78.156	0.000	4.095	99.98	No
A7	25 次完全充电 25 cycles fully charged	77.871	4.086	77.871	0.000	4.086	100.00	No
A8	25 次完全充电 25 cycles fully charged	78.154	4.080	78.153	0.001	4.080	100.00	No
A9	25 次完全充电 25 cycles fully charged	78.267	4.082	78.267	0.000	4.082	100.00	No
A10	25 次完全充电 25 cycles fully charged	77.994	4.095	77.994	0.000	4.093	99.95	No
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T.5: 外部短路**T.5: External Short Circuit**

样品编号 Sample No	样品状态 Sample Status	样品表面最高温度(°C) Highest External Temperature/°C	有无解体、破裂、起火 Disassembly, Rupture, Fire(Yes/No)
A1	首次完全充电 First cycle fully charged	56.2	No
A2	首次完全充电 First cycle fully charged	60.0	No
A3	首次完全充电 First cycle fully charged	56.8	No
A4	首次完全充电 First cycle fully charged	55.3	No
A5	首次完全充电 First cycle fully charged	60.8	No
A6	25 次完全充电 25 cycles fully charged	55.3	No
A7	25 次完全充电 25 cycles fully charged	59.0	No
A8	25 次完全充电 25 cycles fully charged	55.3	No
A9	25 次完全充电 25 cycles fully charged	56.9	No
A10	25 次完全充电 25 cycles fully charged	55.3	No
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T.6: 撞击**T.6: Impact**

样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度(°C) Highest External Temperature/°C	有无解体、起火 Disassembly, Fire(Yes/No)
B1	首次 50%容量 First cycle charged 50% rated capacity	26.4	No
B2	首次 50%容量 First cycle charged 50% rated capacity	26.4	No
B3	首次 50%容量 First cycle charged 50% rated capacity	26.4	No
B4	首次 50%容量 First cycle charged 50% rated capacity	26.3	No
B5	首次 50%容量 First cycle charged 50% rated capacity	27.0	No
B6	25 次 50%容量 25 cycle charged 50% rated capacity	27.0	No
B7	25 次 50%容量 25 cycle charged 50% rated capacity	89.6	No
B8	25 次 50%容量 25 cycle charged 50% rated capacity	28.1	No
B9	25 次 50%容量 25 cycle charged 50% rated capacity	27.7	No
B10	25 次 50%容量 25 cycle charged 50% rated capacity	27.8	No
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T.7: 过度充电**T.7: Overcharge**

样品编号 Sample No.	样品状态 Sample Status	有无解体、起火 Disassembly, Fire(Yes/No)
C1	首次完全充电 First cycle fully charged	No
C2	首次完全充电 First cycle fully charged	No
C3	首次完全充电 First cycle fully charged	No
C4	首次完全充电 First cycle fully charged	No
C5	25 次完全充电 25 cycles fully charged	No
C6	25 次完全充电 25 cycles fully charged	No
C7	25 次完全充电 25 cycles fully charged	No
C8	25 次完全充电 25 cycles fully charged	No

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T.8: 强制放电

T.8: Forced Discharge

样品编号 Sample No.	样品状态 Sample Status	有无解体、起火 Disassembly, Fire(Yes/No)
D1	首次完全放电 First cycle fully discharged	No
D2	首次完全放电 First cycle fully discharged	No
D3	首次完全放电 First cycle fully discharged	No
D4	首次完全放电 First cycle fully discharged	No
D5	首次完全放电 First cycle fully discharged	No
D6	首次完全放电 First cycle fully discharged	No
D7	首次完全放电 First cycle fully discharged	No
D8	首次完全放电 First cycle fully discharged	No
D9	首次完全放电 First cycle fully discharged	No
D10	首次完全放电 First cycle fully discharged	No
D11	25 次完全放电 25 cycles fully discharged	No
D12	25 次完全放电 25 cycles fully discharged	No
D13	25 次完全放电 25 cycles fully discharged	No
D14	25 次完全放电 25 cycles fully discharged	No
D15	25 次完全放电 25 cycles fully discharged	No
D16	25 次完全放电 25 cycles fully discharged	No
D17	25 次完全放电 25 cycles fully discharged	No
D18	25 次完全放电 25 cycles fully discharged	No
D19	25 次完全放电 25 cycles fully discharged	No
D20	25 次完全放电 25 cycles fully discharged	No
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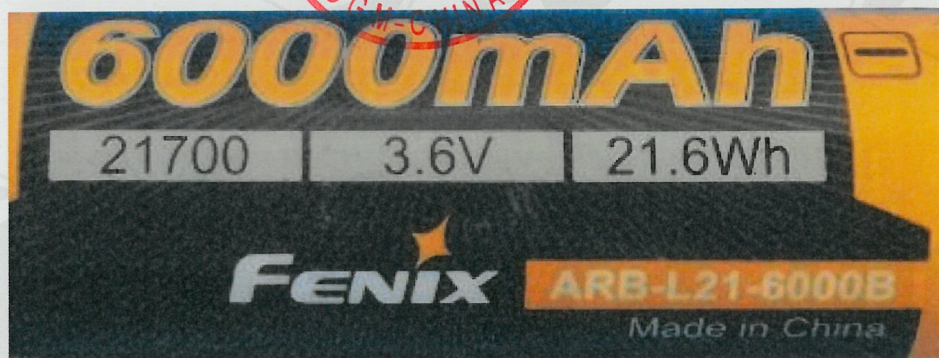
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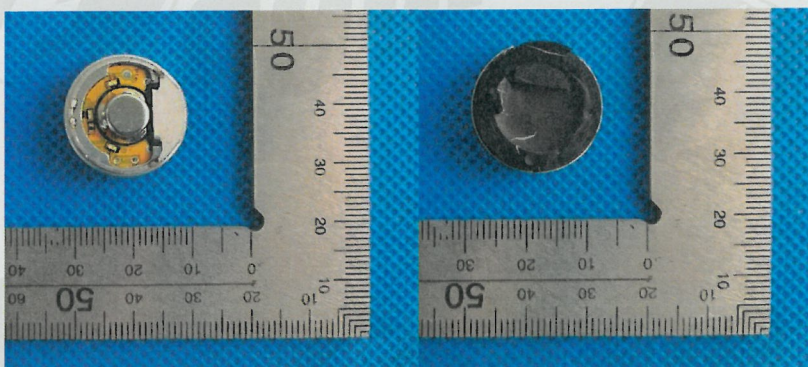
电池图片/Battery pictures



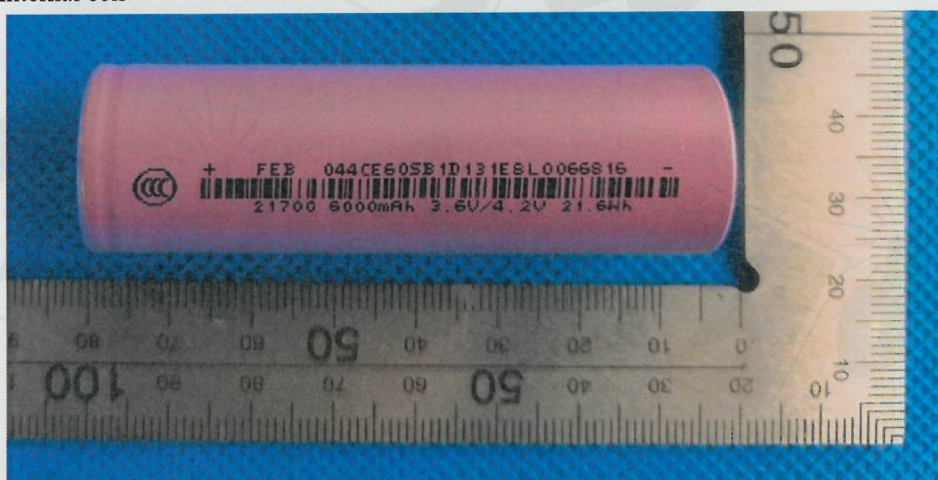
标签/Label



保护装置/Protective devices



内部电芯/Internal cell



* End of the report *