

检测概要
Test Summary

报告编号 Report No.	T8-20230817-V074	报告签发日期 Date of test report	2023年10月18日	样品名称 Sample name	二次锂电池组 Rechargeable Li-ion Battery
样品型号 Sample model	361-00171-00	样品规格 Specification	3.87V 11.61Wh 3000mAh	质量 (g) mass (g)	40.2
样品外观 Appearance	银色尼龙/铝/聚丙烯复合膜, 包裹黄色高温胶带Silver nylon/Al/PP compound film, bag yellow high temperature tape				
制造商信息 Manufacturer Information	制造商名称 Manufacturer Name	东莞新能源科技有限公司 Dongguan Amperex Technology Limited			
	制造商地址 Manufacturer address	中国广东省东莞市松山湖科技园工业西路1号 West Industrial Road 1#, Songshan Lake Industry Park, Dongguan City, Guangdong Province, P. R. China			
	电话号码 Telephone Number	+86-0769-88989338	电子邮箱 E-mail	SSL-Reception@ATLBattery.com	
	网址 Website	www.atlbattery.com			
实验室信息 Lab Information	实验室名称 Lab Name	东莞新能源科技有限公司中心实验室 Dongguan Amperex Technology Limited Central Lab			
	实验室地址 Lab address	中国广东省东莞市松山湖科技园工业西路1号 West Industrial Road 1#, Songshan Lake Industry Park, Dongguan City, Guangdong Province, P. R. China			
	电话号码 Telephone Number	+86-0769-88980975	电子邮箱 E-mail	Lab-Service@ATLBattery.com	
	网址 Website	www.atlbattery.com			
序号 No.	测试项目名称 Name of test items	检测结果(合格/不合格) Test result (Pass/Fail)		备注 Remark	
T.1	高度模拟 Altitude simulation	合格 Passed		/	
T.2	温度试验 Thermal test	合格 Passed		/	
T.3	振动 Vibration	合格 Passed		/	
T.4	冲击 Shock	合格 Passed		/	
T.5	外部短路 External short-circuit	合格 Passed		/	
T.6	挤压 Crush	合格 Passed		/	
T.7	过度充电 Overcharge	合格 Passed		/	
T.8	强制放电 Forced discharge	合格 Passed		/	
测试方法和判定标准 Test method and criterion	联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11 Rev.7/Amend 1, 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11 Rev.7/Amend 1, 38.3			东莞新能源科技有限公司中心实验室 Dongguan Amperex Technology Limited Central Lab (签章) (signature)	
签名 Signature		李作为: 技术负责人 Li Zuo Wei: Technical Director 郭佳丽: 中心主任 Guo Jiali: Center Director		签发日期: 2023年10月18日	



中国认可
国际互认
检测
TESTING
CNAS L3767

UN38.3检测报告

UN38.3 Test Report

样品名称:	二次锂电池组
Sample Name:	Rechargeable Li-ion Battery
样品型号:	361-00171-00
Sample Model:	361-00171-00
委托单位:	东莞新能源科技有限公司
Consignor:	Dongguan Amperex Technology Limited

东莞新能源科技有限公司中心实验室
Dongguan Amperex Technology Limited Central Lab

样品名称 Sample name	二次锂电池组 Rechargeable Li-ion Battery	测试类别 Test category	委托检测 After testing
样品型号 Sample model	361-00171-00	样品接收日期 Accepted date	2023-08-25
样品规格 Sample specification	3.87V 11.61Wh 3000mAh	测试开始日期 Test start date	2023-08-29
样品数量(个) Sample quantity (pcs.)	48	测试结束日期 Test end date	2023-09-16
委托单位信息 Consignor Information	委托单位 Consignor	东莞新能源科技有限公司 Dongguan Amperex Technology Limited	
	委托单位地址 Consignor address	中国广东省东莞市松山湖科技园工业西路1号 West Industrial Road 1#, Songshan Lake Industry Park, Dongguan City, Guangdong Province, P. R. China	
制造商信息 Manufacturer Information	制造商名称 Manufacturer Name	东莞新能源科技有限公司 Dongguan Amperex Technology Limited	
	制造商地址 Manufacturer address	中国广东省东莞市松山湖科技园工业西路1号 West Industrial Road 1#, Songshan Lake Industry Park, Dongguan City, Guangdong Province, P. R. China	
	电话号码 Telephone Number	+86-0769-88989338	电子邮箱 E-mail SSL- Reception@ATLBattery.com
	网址 Website	www.atlbattery.com	
测试环境条件 Test environment condition	环境温度: 15°C - 25°C; 环境湿度: ≤ 75% RH Ambient temperature: 15°C - 25°C; Ambient humidity: ≤ 75% RH		
样品外观 Appearance	银色尼龙/铝/聚丙烯复合膜, 包裹黄色高温胶带 Silver nylon/Al/PP compound film, bag yellow high temperature tape		
测试方法和判定标准 Test method and criterion	联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11 Rev.7/Amend 1, 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11 Rev.7/Amend 1, 38.3		
测试项目 Test items	高度模拟、温度试验、振动、冲击、外部短路、挤压、过度充电、强制放电 Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Crush, Overcharge, Forced discharge		
测试结论 Conclusion	经测试, 该样品符合联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11 Rev.7/Amend 1,38.3标准的要求 The sample has passed the test items of UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11 Rev.7/Amend 1,38.3		
测试人员 Testers	刘杰 肖亮		东莞新能源科技有限公司中心 实验室 Dongguan Amperex Technology Limited Central Lab (签章) (signature) 签发日期: 2023年10月18日
审核 Checker	李作为		
批准 Approval	郭佳丽 李作为: 技术负责人 Li Zuo Wei: Technical Director 郭佳丽: 中心主任 Guo Jiali: Center Director		

样品描述及说明 Sample description

化学组分 Chemical composition	钴酸锂-石墨
测试用充电程序 Test charge program	按照制造商推荐的充电程序进行 (3000mA CC to 4.45V ,CV to 60mA)
测试用放电程序 Test discharge program	按照制造商推荐的放电程序进行 (3000mA DC to 3.0V)

测试样品图片 Test sample image

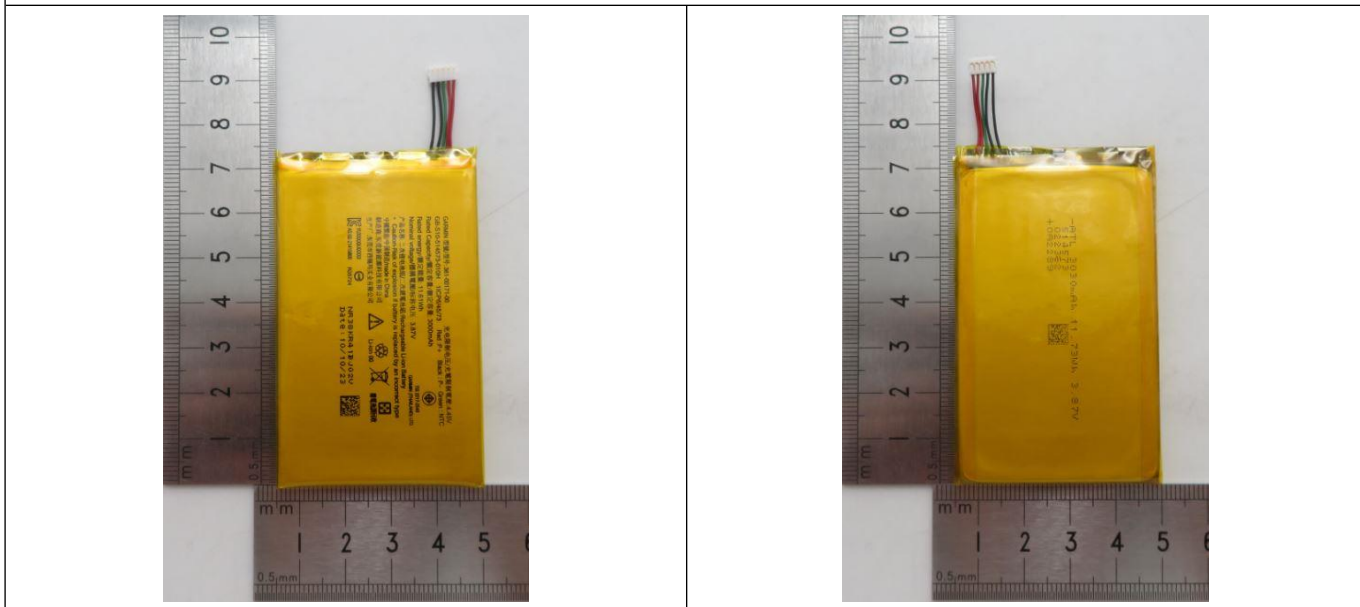


图1：正面
Figure 1: Front side

图2：反面
Figure 2: Back side



图3：标识
Figure 3: Logo

序号 No	测试项目名称 Name of test	标准要求或标准号条款 Standard requirement or the clause number of standard	测试现象 Phenomenon	本项结论 Test conclusion	备注 Remarks
T.1	高度模拟 Altitude simulation	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.1 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.1	见附表1 See Appendix 1	合格 Passed	/
T.2	温度试验 Thermal test	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.2 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.2	见附表2 See Appendix 2	合格 Passed	/
T.3	振动 Vibration	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.3 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.3	见附表3 See Appendix 3	合格 Passed	/
T.4	冲击 Shock	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.4 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.4	见附表4 See Appendix 4	合格 Passed	/
T.5	外部短路 External short- circuit	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.5 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.5	见附表5 See Appendix 5	合格 Passed	/
T.6	挤压 Crush	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.6 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.6	见附表6 See Appendix 6	合格 Passed	/
T.7	过度充电 Overcharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.7 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.7	见附表7 See Appendix 7	合格 Passed	/
T.8	强制放电 Forced discharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.7/Amend 1, 38.3.4.8 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.7/Amend 1, 38.3.4.8	见附表8 See Appendix 8	合格 Passed	/

附表1
Appendix 1

序号 No.	T.1	测试项目名称 Name of test items		高度模拟 Altitude simulation				
		样品质量 Sample mass(g)		质量损失 Mass loss (%)	开路电压 OCV (V)		剩余电压 Residual OCV (%)	测试现象 Phenomenon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	0223620A3307	40.1456	40.1441	0.00	4.434	4.428	99.86	O
1cycle fully charged	0223620A3407	40.3186	40.3167	0.00	4.434	4.427	99.84	O
1cycle fully charged	0223620A3381	40.2259	40.2242	0.00	4.434	4.427	99.84	O
1cycle fully charged	0223620A3294	40.2099	40.2081	0.00	4.434	4.427	99.84	O
1cycle fully charged	0223620A3170	40.3241	40.3218	0.01	4.434	4.427	99.84	O
25cycles fully charged	0223620A3335	40.1485	40.1442	0.01	4.437	4.432	99.89	O
25cycles fully charged	0223620A3403	40.2567	40.2512	0.01	4.437	4.433	99.91	O
25cycles fully charged	0223620A3397	40.2851	40.2806	0.01	4.436	4.432	99.91	O
25cycles fully charged	0223620A3410	40.2233	40.2223	0.00	4.436	4.433	99.93	O
25cycles fully charged	0223620A3311	40.2456	40.2457	0.00	4.436	4.432	99.91	O

注: L-泄漏; V-排气; D-解体; R-破裂; F-起火; O-无泄漏, 无排气, 无解体, 无破裂, 无起火。
Note: L-Leakage, V-Venting, D-Disassembly, R-Rupture, F-Fire, O-No leakage, no venting, no disassembly, no rupture & no fire.

附表2
Appendix 2

序号 No.	T.2	测试项目名称 Name of test items		温度试验 Thermal test				
		样品组别 Group	样品质量 Sample mass(g)		质量损失 Mass loss (%)	开路电压 OCV (V)		剩余电压 Residual OCV (%)
样品信息 Sample information (如Barcode)	M1 (before test)		M2 (after test)	OCV1 (before test)		OCV2 (after test)		
1cycle fully charged	0223620A3307	40.1441	40.1355	0.02	4.428	4.344	98.10	O
1cycle fully charged	0223620A3407	40.3167	40.3080	0.02	4.427	4.342	98.08	O
1cycle fully charged	0223620A3381	40.2242	40.2157	0.02	4.427	4.340	98.03	O
1cycle fully charged	0223620A3294	40.2081	40.1997	0.02	4.427	4.341	98.06	O
1cycle fully charged	0223620A3170	40.3218	40.3135	0.02	4.427	4.341	98.06	O
25cycles fully charged	0223620A3335	40.1442	40.1377	0.02	4.432	4.358	98.33	O
25cycles fully charged	0223620A3403	40.2512	40.2504	0.00	4.433	4.356	98.26	O
25cycles fully charged	0223620A3397	40.2806	40.2740	0.02	4.432	4.356	98.29	O
25cycles fully charged	0223620A3410	40.2223	40.2166	0.01	4.433	4.356	98.26	O
25cycles fully charged	0223620A3311	40.2457	40.2389	0.02	4.432	4.353	98.22	O

注: L-泄漏; V-排气; D-解体; R-破裂; F-起火; O-无泄漏, 无排气, 无解体, 无破裂, 无起火。
Note: L-Leakage, V-Venting, D-Disassembly, R-Rupture, F-Fire, O-No leakage, no venting, no disassembly, no rupture & no fire.

附表3
Appendix 3

序号 No.	T.3 样品信息 Sample information (如Barcode)	测试项目名称 Name of test items		振动 Vibration				
		样品质量 Sample mass(g)		质量损失 Mass loss (%)	开路电压 OCV (V)		剩余电压 Residual OCV (%)	测试现象 Phenom enon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	0223620A3307	40.1355	40.1441	-0.02	4.344	4.341	99.93	O
1cycle fully charged	0223620A3407	40.3080	40.3172	-0.02	4.342	4.340	99.95	O
1cycle fully charged	0223620A3381	40.2157	40.2244	-0.02	4.340	4.338	99.95	O
1cycle fully charged	0223620A3294	40.1997	40.2078	-0.02	4.341	4.339	99.95	O
1cycle fully charged	0223620A3170	40.3135	40.3220	-0.02	4.341	4.339	99.95	O
25cycles fully charged	0223620A3335	40.1377	40.1465	-0.02	4.358	4.356	99.95	O
25cycles fully charged	0223620A3403	40.2504	40.2590	-0.02	4.356	4.354	99.95	O
25cycles fully charged	0223620A3397	40.2740	40.2828	-0.02	4.356	4.354	99.95	O
25cycles fully charged	0223620A3410	40.2166	40.2244	-0.02	4.356	4.354	99.95	O
25cycles fully charged	0223620A3311	40.2389	40.2473	-0.02	4.353	4.351	99.95	O

注: L-泄漏; V-排气; D-解体; R-破裂; F-起火; O-无泄漏, 无排气, 无解体, 无破裂, 无起火。
Note: L-Leakage, V-Venting, D-Disassembly, R-Rupture, F-Fire, O-No leakage, no venting, no disassembly, no rupture & no fire.

附表4
Appendix 4

序号 No.	T.4	测试项目名称 Name of test items		冲击 Shock				
样品组别 Group	样品信息 Sample information (如Barcode)	样品质量 Sample mass(g)		质量损失 Mass loss (%)	开路电压 OCV (V)		剩余电压 Residual OCV (%)	测试现象 Phenom enon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	0223620A3307	40.1441	40.1443	0.00	4.341	4.341	100.00	O
1cycle fully charged	0223620A3407	40.3172	40.3170	0.00	4.340	4.340	100.00	O
1cycle fully charged	0223620A3381	40.2244	40.2245	0.00	4.338	4.338	100.00	O
1cycle fully charged	0223620A3294	40.2078	40.2082	0.00	4.339	4.339	100.00	O
1cycle fully charged	0223620A3170	40.3220	40.3226	0.00	4.339	4.339	100.00	O
25cycles fully charged	0223620A3335	40.1465	40.1460	0.00	4.356	4.356	100.00	O
25cycles fully charged	0223620A3403	40.2590	40.2586	0.00	4.354	4.354	100.00	O
25cycles fully charged	0223620A3397	40.2828	40.2825	0.00	4.354	4.353	99.98	O
25cycles fully charged	0223620A3410	40.2244	40.2244	0.00	4.354	4.354	100.00	O
25cycles fully charged	0223620A3311	40.2473	40.2473	0.00	4.351	4.351	100.00	O

注: L-泄漏; V-排气; D-解体; R-破裂; F-起火; O-无泄漏, 无排气, 无解体, 无破裂, 无起火。
 Note: L-Leakage, V-Venting, D-Disassembly, R-Rupture, F-Fire, O-No leakage, no venting, no disassembly, no rupture & no fire.

附表5
Appendix 5

序号NO.	T.5	测试项目名称 Name of test items	外部短路 External short circuit		
样品组别 Group	样品信息 Sample information (如Barcode)	样品表面最高温度 Max. External temperature (°C)	测试现象 Phenomenon	备注 Remark	
1 cycle fully charged	0223620A3307	57.1	O	/	
1 cycle fully charged	0223620A3407	56.9	O	/	
1 cycle fully charged	0223620A3381	56.8	O	/	
1 cycle fully charged	0223620A3294	56.6	O	/	
1 cycle fully charged	0223620A3170	56.0	O	/	
25cycles fully charged	0223620A3335	56.8	O	/	
25cycles fully charged	0223620A3403	56.9	O	/	
25cycles fully charged	0223620A3397	56.8	O	/	
25cycles fully charged	0223620A3410	56.5	O	/	
25cycles fully charged	0223620A3311	56.0	O	/	
<p>注: D-解体; R-破裂; F-起火; O-无解体, 无破裂, 无起火。 Note: D-Disassembly, R-Rupture, F-Fire, O-No disassembly, no rupture & no fire.</p>					

附表6
Appendix 6

序号NO.	T.6	测试项目名称 Name of test items	挤压 Crush		
样品组别 Group		样品信息 Sample information (如Barcode)	样品表面最高温度 Max. External temperature (°C)	测试现象 Phenomenon	备注 Remark
1cycle 50% capacity		0223620A3094	21.3	O	/
1cycle 50% capacity		0223620A3095	21.2	O	/
1cycle 50% capacity		0223620A3098	21.3	O	/
1cycle 50% capacity		0223620A3099	21.2	O	/
1cycle 50% capacity		0223620A3100	21.1	O	/
25cycles 50% capacity		0223620A3091	21.6	O	/
25cycles 50% capacity		0223620A3096	21.6	O	/
25cycles 50% capacity		0223620A3097	21.5	O	/
25cycles 50% capacity		0223620A3092	21.5	O	/
25cycles 50% capacity		0223620A3093	21.4	O	/

注: D-解体; F-起火; O-无解体, 无起火。
Note: D-Disassembly, F-Fire, O-No disassembly, no fire.

附表7
Appendix 7

序号 No.	T.7	测试项目名称 Name of test items	过度充电 Overcharge	
样品组别 Group	样品信息 Sample Information (如Barcode)	测试现象 Phenomenon	备注 Remark	
1cycle fully charged	0223620A3256	O	/	
1cycle fully charged	0223620A3204	O	/	
1cycle fully charged	0223620A3306	O	/	
1cycle fully charged	0223620A3295	O	/	
25cycles fully charged	0223620A3281	O	/	
25cycles fully charged	0223620A3299	O	/	
25cycles fully charged	0223620A3383	O	/	
25cycles fully charged	0223620A3404	O	/	

注: D-解体; F-起火; O-无解体, 无起火。
Note: D-Disassembly, F-Fire, O-No disassembly, no fire.

附表8
Appendix 8

序号NO.	T.8	测试项目名称 Name of test items		强制放电 Forced discharge	
		样品组别 Group	样品信息 Sample information (如Barcode)	测试现象 Phenomenon	备注 Remark
		1cycle fully discharged	0223620A3071	O	/
		1cycle fully discharged	0223620A3076	O	/
		1cycle fully discharged	0223620A3072	O	/
		1cycle fully discharged	0223620A3073	O	/
		1cycle fully discharged	0223620A3074	O	/
		1cycle fully discharged	0223620A3075	O	/
		1cycle fully discharged	0223620A3077	O	/
		1cycle fully discharged	0223620A3078	O	/
		1cycle fully discharged	0223620A3079	O	/
		1cycle fully discharged	0223620A3080	O	/
		25cycles fully discharged	0223620A3081	O	/
		25cycles fully discharged	0223620A3082	O	/
		25cycles fully discharged	0223620A3083	O	/
		25cycles fully discharged	0223620A3086	O	/
		25cycles fully discharged	0223620A3085	O	/
		25cycles fully discharged	0223620A3084	O	/
		25cycles fully discharged	0223620A3087	O	/
		25cycles fully discharged	0223620A3088	O	/
		25cycles fully discharged	0223620A3089	O	/
		25cycles fully discharged	0223620A3090	O	/
<p>注: D-解体; F-起火; O-无解体, 无起火。 Note: D-Disassembly, F-Fire, O-No disassembly, no fire.</p>					

声明

Statement

1. 检测报告无本实验室公章无效。

The test report is invalid if not affixed the official seal of the laboratory to it.

2. 检测报告涂改无效。

The test report is invalid if it is blotted out.

3. 送样委托检测结果，仅对所送样品有效。

The conclusion of the consignment test is only valid for the provided sample.

4. 对检测报告若有异议，应于收到报告之日起十五日内向检测单位提出。

Objections to the test report must be submitted to ATL Central Lab within 15 days.

5. 本报告未经本实验室书面许可，不可部分复制。

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