

检测概要
Test Summary

报告编号 Report No.	T8-20211221-F984	报告签发日期 Date of test report	2022年2月9日	样品名称 Sample name	二次锂离子电池组 Rechargeable Li-ion Battery
样品型号 Sample model	361-00135-01	样品规格 Specification	3.8V 6.84Wh 1800mAh	质量 (g) mass (g)	28.1
样品外观 Appearance	银色尼龙/铝/聚丙烯复合膜, 白色塑料薄膜外包Silver Nylon/Al/PP compound film, White plastic film wrapping				
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-(0)769-8898 9338	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	+86-0769-88989149	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.6/Amend 1, 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11 Rev.6/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 (盖章) (signature) 签发日期: 2022年2月9日		
签名 Signature	李伟丽				



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检测
TESTING
CNAS L3767

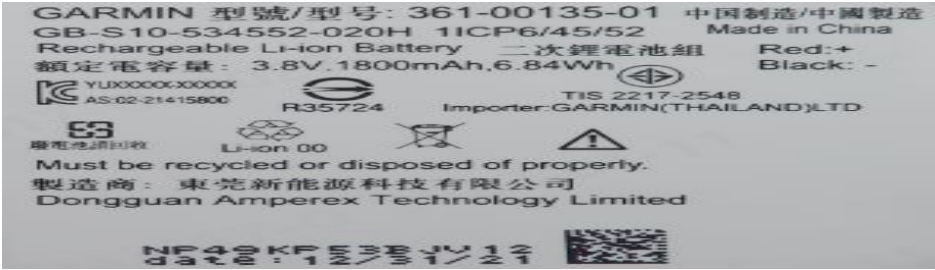
UN38.3检测报告

UN38.3 Test Report

样品名称:	二次锂离子电池组
Sample Name:	Rechargeable Li-ion Battery
样品型号:	361-00135-01
Sample Model:	361-00135-01
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	二次锂离子电池组 Rechargeable Li-ion Battery	测试类别 Test category	委托检测 After testing		
样品型号 Sample model	361-00135-01	样品接收日期 Accepted date	2022-01-11		
样品规格 Sample specification	3.8V 6.84Wh 1800mAh	测试开始日期 Test start date	2022-01-17		
样品数量(个) Sample quantity (pcs.)	48	测试结束日期 Test end date	2022-01-28		
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-(0)769-8898 9338	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℃ - 25℃; 环境湿度: ≤ 75% RH Ambient temperature: 15℃ - 25℃; Ambient humidity: ≤ 75% RH				
样品外观 Appearance	银色尼龙/铝/聚丙烯复合膜, 白色塑料薄膜外包 Silver Nylon/Al/PP compound film, White plastic film wrapping				
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.6/Amend 1, 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11 Rev.6/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.6/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.6/Amend 1, 38.3				
测试人员 Testers	杨登 黄泽邦				
编制人员 Compiler	李作为		 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: 2022年2月9日		
审核 Checker	李作为				
批准 Approval	李作为				

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（1800mA CC to 4.35V ,CV to 36mA ）
测试用放电程序 Test discharge program	按照制造商推荐的放电程序进行（1800mA 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.6/Amend 1, 38.3.4.1 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.2 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.3 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.4 UN Manual of Test and Criteria ST/SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.5 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.6 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.7 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.6/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.6/Amend 1, 38.3.4.8 UN Manual of Test and Criteria ST/ SG/ AC.10/11/Rev.6/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 Phenomenon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	NP49KP53BJV1 2	28.1027	28.0981	0.02	4.319	4.318	99.98	O
1cycle fully charged	NP49KP53BJV2 V	28.1434	28.1385	0.02	4.318	4.317	99.98	O
1cycle fully charged	NP49KP53BJV2 T	28.1707	28.1675	0.01	4.319	4.317	99.95	O
1cycle fully charged	NP49KP53BJV2 P	28.0231	28.0189	0.01	4.319	4.318	99.98	O
1cycle fully charged	NP49KP53BJV2 R	28.1031	28.0986	0.02	4.319	4.318	99.98	O
25cycles fully charged	NP49KP53BJV4 I	28.1202	28.1154	0.02	4.326	4.325	99.98	O
25cycles fully charged	NP49KP53BJV3 G	28.0965	28.0914	0.02	4.327	4.326	99.98	O
25cycles fully charged	NP49KP53BJV2 U	28.1385	28.1335	0.02	4.326	4.325	99.98	O
25cycles fully charged	NP49KP53BJV1 4	28.1963	28.1913	0.02	4.327	4.327	100.00	O
25cycles fully charged	NP49KP53BJV2 Q	28.1116	28.1071	0.02	4.327	4.326	99.98	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 Phenomenon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	NP49KP53BJV1 2	28.0981	28.1077	-0.03	4.318	4.226	97.87	O
1cycle fully charged	NP49KP53BJV2 V	28.1385	28.1480	-0.03	4.317	4.227	97.92	O
1cycle fully charged	NP49KP53BJV2 T	28.1675	28.1772	-0.03	4.317	4.228	97.94	O
1cycle fully charged	NP49KP53BJV2 P	28.0189	28.0284	-0.03	4.318	4.227	97.89	O
1cycle fully charged	NP49KP53BJV2 R	28.0986	28.1076	-0.03	4.318	4.227	97.89	O
25cycles fully charged	NP49KP53BJV4 I	28.1154	28.1254	-0.04	4.325	4.232	97.85	O
25cycles fully charged	NP49KP53BJV3 G	28.0914	28.1016	-0.04	4.326	4.233	97.85	O
25cycles fully charged	NP49KP53BJV2 U	28.1335	28.1434	-0.04	4.325	4.231	97.83	O
25cycles fully charged	NP49KP53BJV1 4	28.1913	28.2013	-0.04	4.327	4.235	97.87	O
25cycles fully charged	NP49KP53BJV2 Q	28.1071	28.1159	-0.03	4.326	4.232	97.83	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	测试项目名称 Name of test items		振动 Vibration				
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 Phenomenon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	NP49KP53BJV1 2	28.1077	28.1126	-0.02	4.226	4.226	100.00	O
1cycle fully charged	NP49KP53BJV2 V	28.1480	28.1476	0.00	4.227	4.226	99.98	O
1cycle fully charged	NP49KP53BJV2 T	28.1772	28.1775	0.00	4.228	4.228	100.00	O
1cycle fully charged	NP49KP53BJV2 P	28.0284	28.0285	0.00	4.227	4.226	99.98	O
1cycle fully charged	NP49KP53BJV2 R	28.1076	28.1078	0.00	4.227	4.227	100.00	O
25cycles fully charged	NP49KP53BJV4 I	28.1254	28.1257	0.00	4.232	4.232	100.00	O
25cycles fully charged	NP49KP53BJV3 G	28.1016	28.1004	0.00	4.233	4.233	100.00	O
25cycles fully charged	NP49KP53BJV2 U	28.1434	28.1434	0.00	4.231	4.231	100.00	O
25cycles fully charged	NP49KP53BJV1 4	28.2013	28.2017	0.00	4.235	4.234	99.98	O
25cycles fully charged	NP49KP53BJV2 Q	28.1159	28.1148	0.00	4.232	4.232	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 Phenomenon
		M1 (before test)	M2 (after test)		OCV1 (before test)	OCV2 (after test)		
1cycle fully charged	NP49KP53BJV1 2	28.1126	28.1085	0.01	4.226	4.226	100.00	O
1cycle fully charged	NP49KP53BJV2 V	28.1476	28.1486	0.00	4.226	4.226	100.00	O
1cycle fully charged	NP49KP53BJV2 T	28.1775	28.1778	0.00	4.228	4.228	100.00	O
1cycle fully charged	NP49KP53BJV2 P	28.0285	28.0295	0.00	4.226	4.226	100.00	O
1cycle fully charged	NP49KP53BJV2 R	28.1078	28.1089	0.00	4.227	4.227	100.00	O
25cycles fully charged	NP49KP53BJV4 I	28.1257	28.1262	0.00	4.232	4.232	100.00	O
25cycles fully charged	NP49KP53BJV3 G	28.1004	28.1021	-0.01	4.233	4.233	100.00	O
25cycles fully charged	NP49KP53BJV2 U	28.1434	28.1439	0.00	4.231	4.231	100.00	O
25cycles fully charged	NP49KP53BJV1 4	28.2017	28.2021	0.00	4.234	4.234	100.00	O
25cycles fully charged	NP49KP53BJV2 Q	28.1148	28.1175	-0.01	4.232	4.232	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		NP49KP53BJV12	59.8	O	/
1 cycle fully charged		NP49KP53BJV2V	59.1	O	/
1 cycle fully charged		NP49KP53BJV2T	57.1	O	/
1 cycle fully charged		NP49KP53BJV2P	55.9	O	/
1 cycle fully charged		NP49KP53BJV2R	56.6	O	/
25cycles fully charged		NP49KP53BJV4I	56.5	O	/
25cycles fully charged		NP49KP53BJV3G	56.5	O	/
25cycles fully charged		NP49KP53BJV2U	55.4	O	/
25cycles fully charged		NP49KP53BJV14	55.9	O	/
25cycles fully charged		NP49KP53BJV2Q	55.9	O	/
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.					

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		EC11490VA66D	17.7	O	/
1cycle 50% capacity		EC11490V00E0	17.7	O	/
1cycle 50% capacity		EC11490V699F	17.8	O	/
1cycle 50% capacity		EC11490VA842	17.8	O	/
1cycle 50% capacity		EC11490V6DD3	17.7	O	/
25cycles 50% capacity		EC11490V5F7B	19.8	O	/
25cycles 50% capacity		EC11490V6E9D	19.3	O	/
25cycles 50% capacity		EC11490V0733	19.0	O	/
25cycles 50% capacity		EC11490V5F5A	19.2	O	/
25cycles 50% capacity		EC11490V79A2	18.9	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		NP49KP53BJV3H	O	/
1cycle fully charged		NP49KP53BJV1Q	O	/
1cycle fully charged		NP49KP53BJV3X	O	/
1cycle fully charged		NP49KP53BJV25	O	/
25cycles fully charged		NP49KP53BJV1M	O	/
25cycles fully charged		NP49KP53BJV1G	O	/
25cycles fully charged		NP49KP53BJV38	O	/
25cycles fully charged		NP49KP53BJV47	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		EC11490V6A40	O	/
1cycle fully discharged		EC11490V6C92	O	/
1cycle fully discharged		EC11490V5E8C	O	/
1cycle fully discharged		EC11490V20FC	O	/
1cycle fully discharged		EC11490V69A6	O	/
1cycle fully discharged		EC11490V20E7	O	/
1cycle fully discharged		EC11490V5864	O	/
1cycle fully discharged		EC11490VAA2D	O	/
1cycle fully discharged		EC11490V638E	O	/
1cycle fully discharged		EC11490V69A9	O	/
25cycles fully discharged		EC11490V6E7F	O	/
25cycles fully discharged		EC11490V8B47	O	/
25cycles fully discharged		EC11490V69CE	O	/
25cycles fully discharged		EC11490V787E	O	/
25cycles fully discharged		EC11490V6FD3	O	/
25cycles fully discharged		EC11490V72D4	O	/
25cycles fully discharged		EC11490V5D65	O	/
25cycles fully discharged		EC11490V6823	O	/
25cycles fully discharged		EC11490V7157	O	/
25cycles fully discharged		EC11490VABF2	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.				

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天内向检测单位提出。

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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