







地址:中国广州市天河区珠江新城花城大道66号B座

地址: 中国厂州市大河区环江湖州双飞州人区 72/15 网址: www.iqtc.cn 邮编: 510623 Mdd: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

2021-05-23 Date: Page:

UN38.3 报告 **UN38.3 Test Report**

Sample Name: ENCHARGE-3T-1P-INT

Enphase Energy Inc

CDN8PS5J0W

GUANGZHOU CUSTOMS DISTRICT FECHNOL

^{1.} 本报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书而同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

思想: 中国) がけた内区球圧別級化級人造66号B屋 剛址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 2 of 14

检测证书 **TEST REPORT**

			AX	
样品名称 Sample Name	ENCHARGE-3T-1P-INT	GZHOU CO	CANTEL	
型号 Model	B03-T01-INT00-1-2	CUANTO	, clistic	
委托单位 Applicant	Enphase Energy Inc	ag de la	CHMOLOG,	'CL' KECHII
委托单位地址 Applicant Address	1 Treffers road, Wigram, Christchurc	ch 8042, New Zealar	nd TEC	STE CUST
生产单位 Manufacture	Flextronics Electronics Technology (ShenZhen) Co., Ltd	· allousio	McTHOD
生产单位地址 Manufacture Address	89# Yong Fu Road, Tong Fu Yu Indu 518103.P.R.China	strial Park, Fu Yong	Town, Bao An Distri	ct, Shenzhen,
样品外观与性状	银色金属和白色塑料外壳	30	8	CEN
Appearance & Odor	Silver metal and white plastic shell			067
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设UNITED NATIONS"Recommenda Manual of Tests and Criteria ST/SG/	tions on the TRANS	SPORT OF DANGE	
接样时间 Accepted date	2021-04-20	测试日期 Test date	2021-04-20~20)21-05-23
测试项目 Test items	高度模拟、温度试验、振动、冲击Altitude simulation, Thermal test, Vi Forced discharge.			
结论 Conclusion	经测试,该样品符合联合国《ST/SG/AC.10/11/Rev.7, 38.3 标准要The sample has passed the test its TRANSPORT OF DANGERO ST/SG/AC.10/11/Rev.7, 38.3.	京。 ems of UNITED N		
备注 Remark	1.随附 UN38.3 试验概要(编号: (Attached with UN38.3 test summa			110 ¹ 1
41.14	上 安持	E The	 	GV.

批准

Approver: 不是必然

Checker: भ्रेमण्डे

主检

Appraiser:

陈旭卷

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.









地址:中国广州市天河区珠江新城花城大道66号B座 网址:www.iqtc.cn 邮编:510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website:www.iqtc.cn Postcode:510623

01052100002315-1(E)

Date: 2021-05-23 Page:

The batteries information:

电池类型 Battery type	锂离子电池组 Lithium ion batteries	标称电压 Nominal Voltage	67.2V
额定容量 Rated Capacity	52 Ah	总能量 Total Energy	3.5kWh
充电限制电压 Limited Charge Voltage	73.5V	标准充电电流 Standard Charge Current	20A
最大充电电流 Maximum Charge Current	28A	充电截止电流 Charge Cut-off Current	0.1A
标准放电电流 Standard discharge Current	20A	最大放电电流 Maximum Discharge Current	25A
放电截止电压 Discharge Cut-off Voltage	58.8V	尺寸 Overall Dimensions (W×D×H)	766.3mm(L)*427mm(W)*182.5mm(H)
电芯数量 Cell Quantity	21 PCS	重量 Mass	41kg
电芯容量 Cell Capacity	52Ah	电芯型号 Cell Model	D0C24A
电芯生产单位 Manufacturer of cell	J. Ole The	Ningde Amperex Techno	ology Limited

^{1.} 本根告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书而同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座 网址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 4 of 14

序号 No.	测试项目名称 Name of test	标准要求 Stand requirement st	测试结果 Test result	本项结论 Test conclusion	备注 Remark		
1	高度模拟 Altitude simulation	联合国《关于危险和标准手册》UN Criteria ST/SG/AC T.1 Test T.1	Manual of	Tests and	见附表 1 See Appendix 1	合格 Passed	1,66
2	温度试验 Thermal test	联合国《关于危险 和标准手册》UN Criteria ST/SG/AC T.2 Test T.2	Manual of	Tests and	见附表 2 See Appendix 2	合格 Passed	**************************************
3	振动 Vibration	联合国《关于危险 和标准手册》UN Criteria ST/SG/AC T.3 Test T.3	Manual of	Tests and	见附表 3 See Appendix 3	合格 Passed	THOYCUP
4	冲击 Shock	联合国《关于危险和标准手册》UN Criteria ST/SG/AC T.4 Test T.4	Manual of	Tests and	见附表 4 See Appendix 4	合格 Passed	1 Killing
5	外部短路 External short circuit	联合国《关于危险 和标准手册》UN Criteria ST/SG/AC T.5 Test T.5	Manual of	Tests and	见附表 5 See Appendix 5	合格 Passed	5 / /
6	挤压 Crush	联合国《关于危险 和标准手册》UN Criteria ST/SG/AC T.6 Test T.6	Manual of	Tests and	见附表 6 See Appendix 6	合格 Passed	(ONE)
7	过度充电 Overcharge	联合国《关于危险 和标准手册》UN Criteria ST/SG/AC T.7 Test T.7	Manual of	Tests and	见附表 6 See Appendix 6	合格 Passed	/ /
8	强制放电 Forced discharge	联合国《关于危险 和标准手册》UN Criteria ST/SG/AC T.8 Test T.8	Manual of	Tests and	见附表 8 See Appendix 8	合格 Passed	/ Herri
Test 6	测试环境 environment condition				境湿度:45% mbient humidi		Pic,
0,	and the same of	测试项目 Test items	, ,s^	¢Q,	OE P	STONS	
Subco	分包测试情况 ontracted test condition	分包实验室 Subcontracted Laboratory	名称 Name 地址		,GL	邮编 Post code 电话	JANG Y
20.		Laboratory	Address	,00	, RT	Tel	/

^{1.} 本报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书而同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座

地址:中国)和中本内域中的150623 网址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 5 of 14

序号 No.	附表 1 Appendix 1		TOWE	测试项目名称 Name of test	1510m	高度模 Altitude sim	
标准要求 Requirement of Standard	池组应无重量 在试验后的开 组除外)。 Test cells and temperature 2 venting, no di battery after to	已池组在压力等是损失、无渗漏开路电压不少于。 batteries shall be 0±5℃. Cells and sassembly, no ruesting is not lesselating to voltage	、无排气、无角 其在进行这一记 e stored at a pred batteries meet pture and no fir than 90% of its	解体、无破裂和 式验前电压的 9 ssure of 11.6kP this requirement e and if the ope voltage immed	中无燃烧,并 00%(完全放 a or less for at t if there is no n circuit voltagiately prior to	且每个试验电 电状态的试验 least six hours mass loss, no l ge of each test of this procedure.	池或电池组 电池或电池 at ambient eakage, no cell or The
样品状态 Sample status	b1#~b2#: fin b3#~b4#: 第	一个循环完全充rst cycle in fully 二十五个循环完 iter 25 cycles end	charged states; 已全充电的电池		"NWETHONG	GNE	ACLINO AND
以口处口	测试前	Before	测试后	测试后 After		剩余电压	Tell viv Al. Ed
样品编号 Sample No.	电池质量 m _l (kg)	开路电压 v ₁ (v)	电池质量 m ₂ (kg)	开路电压 V ₂ (v)	质量损失 Mass loss (%)	Residual OCV(%)	测试结果 Test resul
		,	2-	07.2(.)		/4/	5
b1#	41.500	69.51	41.500	69.51	0.00	100.00	0
b1# b2#	41.500	69.51 69.56	41.500	0"	0.00	100.00	0
	. Silve	901	CHINO.	69.51	.00	6)	20, _

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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.

州海关技术中小







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

也址:中国广州市天河区珠江新城花城大道66号B座

地址:中国)和中本内域中的150623 网址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 6 of 14

序号 No.		表 2 endix 2		l试项目名称 Name of test	STON .	温度试 Thermal	
标准要求 Requirement of Standard	下存放至少 1. 验电池或电池 无排气、无解 其在进行这一 Test large cells 72±2℃, follow maximum time repeated 10 tin temperature (2) no venting, no battery after tes	或电池组在试验 2h。两个极端设 组在环境温度。 体、无破裂和 试验前电压的。 s and batteries ar wed by storage for e interval between nes, after which 0±5℃). Cells and disassembly, no sting is not less to lating to voltage	太验温度之间的 20±5℃下存放 无燃烧,并且约 90%(完全放 e to be stored for at least 12 ho en test temperate all test cells and d batteries med rupture and no chan 90% of its	的最大时间间隔 24h。试验电池 每个试验电池或 电状态的试验 or at least 12 ho ours at a test term ure extremes is d batteries are to et this requirement of fire and if the of voltage immed	为 30min。 也或 电池组应	重复 10 次,₹ 无重量损失、 无验后的开路申 且除外)。 temperature equal to -40±2℃. This procedure or 24 hours at a no mass loss, a voltage of each or this procedure	手将所有试 无渗漏、 出压不少于 ual to The is to be mbient no leakage, test cell or e. The
样品状态 Sample	b1#~b2#:第 - b1#~b2#:firs	一个循环完全充 st cycle in fully o		100 (ENVIEW		ALL P
status	700.00	二十五个循环完 er 25 cycles end	全充电的电池				
status	700.00	二十五个循环完 er 25 cycles end	全充电的电池 ing in fully cha		质量损失	剩余电压	2ml V12 / L H
V - 1 -	b3#~b4#: aft	二十五个循环完 er 25 cycles end	全充电的电池 ing in fully cha	arged states.	质量损失 Mass loss (%)	剩余电压 Residual OCV(%)	测试结果 Test result
status 样品编号	b3#~b4#: aft 测试前 电池质量	二十五个循环完 er 25 cycles end Before 开路电压	全充电的电池 ing in fully cha 测试后 电池质量	arged states. f After 开路电压	Mass loss	Residual	
样品编号 Sample No.	b3#~b4#: aft 测试前 电池质量 m _I (kg)	二十五个循环完 er 25 cycles end Before 开路电压 Vi(v)	全充电的电池 ing in fully cha 测试后 电池质量 m ₂ (kg)	所路电压 V2(v)	Mass loss (%)	Residual OCV(%)	Test result
样品编号 Sample No. b1#	b3#~b4#: aft 测试前 电池质量 m ₁ (kg) 41.500	二十五个循环完 er 25 cycles end Before 开路电压 vi(v) 69.51	全充电的电池 ing in fully cha 测试后 电池质量 m ₂ (kg)	开路电压 v ₂ (v)	Mass loss (%)	Residual OCV(%)	Test result 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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座

地址:中国)和中本内域中的150623 网址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 7 of 14

No.		附表 3 ppendix 3	TOME	测试项目名和 Name of test		振云 Vibrat	
标准要求 Requirement of Standard	Ign 的最大加强速度达到 2gn 的电池或电池或电池或电池 大无渗漏电压不少于其 The large Cells distorting the cosinusoidal wave until 18Hz is refrequency increof 2gn is then retimes for a total of the direction requirement if if the open circ	电池组直接安装速度,直到 18Hz。 速度,直到 18Hz。 频率约为 25Hz) 组安装方向的每 无排气、无解 在进行这一试验 s and batteries ar cells in such a ma veform with a log eached. The amp eased until a pea maintained until to al of 3 hours for each of 5 ho	。然后将振幅)).将最大加速是 一种方向重复。 一种方向重复。 一种一种一种。 一种一种一种。 一种一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一种。 一种一。 一。 一,一。 一。 一。 一。 一。 一。 一。 一。 一。 一。 一。 一。 一。 一	保持在 0.8mm 度保持在 2gn 直 进行 12 次,一 即无燃烧,并且 %(完全放电 d to the platfor hfully transmit p from 7Hz to a naintained at 0. of 2gn occurs (a s increased to 2 nutually perpen icular to the ter ge, no venting, pattery after tes	(总偏移 1.6mi 主到频率增加到 共振动 3h。让 上每个试验电对 状态的试验电 the vibration. I a peak accelera .8mm (1.6mm approximately 200Hz. This cy dicular mounti rminal face. Ce no disassembly sting is not less	m),并增加频率到 200Hz。对 3 式验电池或电池或电池 也或电池组存证 记池或电池组的 wition machine wition of 1gn is ration of 1gn is ration 25Hz). A peak well shall be repaired positions of ells and batteries, no rupture are than 90% of its	直到最大加 三个互相垂重 式验后的开 或验后的开 without hall be a maintained) and the acceleration peated 12 the cell. One es meet this and no fire and as voltage
		t fully discharged					
样品状态 Sample status	and batteries a b1#~b2#: 第- b1#~b2#: fir b3#~b4#: 第2		电的电池; charged states; 全充电的电池		ECHNOLOGY	JE PRICT TECHNIC	LOC TOME DETR
Sample status	and batteries a b1#~b2#: 第- b1#~b2#: fir. b3#~b4#: 第: b3#~b4#: aft	t fully discharged 一个循环完全充 st cycle in fully c 二十五个循环完	电的电池; charged states; 全充电的电池 ing in fully cha		质量损失	剩余电压	
Sample	and batteries a b1#~b2#: 第- b1#~b2#: fir. b3#~b4#: 第: b3#~b4#: aft	t fully discharged 一个循环完全充 st cycle in fully c 二十五个循环完 er 25 cycles end	电的电池; charged states; 全充电的电池 ing in fully cha	arged states.	质量损失 Mass loss (%)	剩余电压 Residual OCV(%)	测试结果 Test result
Sample status 样品编号	and batteries a b1#~b2#: 第- b1#~b2#: fir b3#~b4#: 第三 b3#~b4#: aft 测试前 电池质量	t fully discharged 一个循环完全充 st cycle in fully c 二十五个循环完 er 25 cycles end Before 开路电压	电的电池; charged states; 全充电的电池 ing in fully cha	arged states.	Mass loss	Residual	1.75
Sample status 样品编号 Sample No.	and batteries a b1#~b2#: 第- b1#~b2#: fir b3#~b4#: 第- b3#~b4#: aft 测试前 电池质量 m ₁ (kg)	t fully discharged 一个循环完全充 st cycle in fully c 二十五个循环完 er 25 cycles end Before 开路电压 v1(v)	电的电池; charged states; 全充电的电池 ing in fully cha 测试后 电池质量 m ₂ (kg)	### ### ### #########################	Mass loss (%)	Residual OCV(%)	Test result
Sample status 样品编号 Sample No.	and batteries a b1#~b2#: 第- b1#~b2#: fir b3#~b4#: 第- b3#~b4#: aft 测试前 电池质量 m1(kg) 41.500	The fully discharged the full discharged	电的电池; charged states; 全充电的电池 ing in fully cha 测试后 电池质量 m ₂ (kg)	开路电压 v ₂ (v) 69.23	Mass loss (%) 0.00	Residual OCV(%)	Test result 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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.

州海关技







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座

地址: 中國 / 市場 / 市場 / 市場 : 510623
网址: www.iqtc.cn 邮编: 510623
Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E) No:

Date: 2021-05-23 Page: 8 of 14

序号 No.	Aj	附表 4 ppendix 4	OME	测试项目名 Name of to		冲 · Sho	
标准要求 Requirement of Standard	g _n =√(30000 / 其正负极各冲解体、无破裂验前电压的 90 Test cells and support all most shock of peak milliseconds. If by three shock or battery for a leakage, no vercell or battery requirement re	组用坚硬支架数 mass) 中较小者 击 3 次,共冲击 和无燃烧,并且 0%(完全放电 batteries shall be unting surfaces of acceleration of 5 Each cell or batters in the negative total of 18 shock thing, no disasser after testing is no lating to voltage to Mass is express	的正弦波冲击 18次。各试 每个试验电池 快态的试验电 secured to the of each test batt Ogn or accelerary shall be sub- direction of the ks. Cells and be mbly, no ruptue ot less than 90% is not applicable	,脉冲持续时 验电池或电池 地或电池组除 testing machin tery. Each Larg tion $(g_n) = \sqrt{30}$ jected to three se ree mutually per atteries meet the re and no fire a 6 of its voltage	间 11ms,按三 组应无重量损 强验后的开路电 外)。 we by means of see batteries shall 2000 / mass) a shocks in the perpendicular modis requirement and if the open of immediately p	个相互垂直的 失、无渗漏、 压不少于其在 a rigid mount w I be subjected to and pulse duration counting position if there is no made ircuit voltage of rior to this process.	轴向分别对 无排气、无 进行这一试 which will o a half-sine on of 11 in followed as of the cell cass loss, no of each test redure. The
样品状态 Sample status	b1#~b2#: firs b3#~b4#: 第二	一个循环完全充 st cycle in fully c 二十五个循环完 er 25 cycles endi	harged states; 全充电的电池		.HMOLOGY CEPS	ie	OG CDSTRIC
样品编号 Sample No.	测试前电池质量	Before 开路电压	测试后 电池质量	After 开路电压	质量损失 Mass loss (%)	剩余电压 Residual OCV(%)	测试结果 Test result
1111	m ₁ (kg)	V ₁ (V)	m ₂ (kg)	v ₂ (v)	0.00	100.00	
b1#	41.500	69.23	41.500	69.23	0.00	100.00	§ 0
b2#	41.500	69.31	41.500	69.31	0.00	100.00	0
b3#	41.500	69.34	41.500	69.34	0.00	100.00	0
b4#	41.500	69.35	41.500	69.35	0.00	100.00	О

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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

中国广州市天河区珠江新城花城大道66号B座

地址: 中国)が作入内と床に別域化域入道60~5月度 阿址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 9 of 14

序号 No.	附表 5 Appendix 5	测试项目名称 Name of test	外部短路 External short circuit
标准要求 Requirement of Standard	小于 0.1Ω 的短路条件, 当电池或再观察电池或电池组 6h 才结束i6h 内应无解体、无破裂和无燃烧	Il be temperature stabilized so that or battery shall be subjected to a shohm at 57±4°C. This short circuit ery external case temperature has reher six hours for the test to be concemperature does not exceed 170°C	继续至少 1h, 然后短路断开, 应不超过 170℃, 并且试验后 its external case temperature ort circuit condition with a total condition is continued for at eturned to 57±4℃. The cell or cluded. Cells and batteries meet
样品状态 Sample status	b1#~b2#: 第一个循环完全充电的 b1#~b2#: first cycle in fully char b3#~b4#: 第二十五个循环完全的 b3#~b4#: after 25 cycles ending	rged states;	HOLL COLUMN
样品编号 Sample No.	样品表面最高温度 Max External Temperature	测试结果 e(℃) Test result	备注 Remark
b1#	57.1	Tipo O	SETPLO TONE DE
b2#	58.2	Hor o	ONE JUST
b3#	59.6	0	selve ,
12		6	The state of the s

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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.

州海关技术







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座

地址:中国)和中本内域中的150623 网址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 10 of 14

序号 No.	附表 (Appendi			测试项目 Name of		JELHOU	挤压 Crush	CURNO
ECHINA STONE O	(适用于棱柱形、 将电池或元件电池 为 1.5cm/s。挤压持 (a)施加的力量达到	放在两个平 续进行,直	面之间挤/ [到出现以	玉,挤压力度:	逐渐加大,在第	一个接角	虫点上的	1速度大约
Honon	(b)电池的电压下降 (c)电池变形量达原 棱柱形或袋装电池 与纵轴垂直的方向	始厚度的 50 应从最宽的 施压。每个	0%或以上 一面施压。 电池只做-	纽扣/硬币电 一次挤压试验	0			
标准要求 Requirement	试验电池或电池组 无解体、无破裂、		外部温度	不超过 170℃,	并且在试验过	程中和访	战验后 6	小时内应
of Standard	Crush (applicable to diameter): A cell or gradual with a speed continued until the f (a)The applied force (b)The voltage of the (c)The cell is deform Once the maximum cell is deformed by a Each test cell or con this requirement if the no fire during the test.	component of approximitation of the three cell drops and by 50% of pressure has at least 50% apponent cell are external at and within	cell is to be nately 1.5c ree options N±0.78kN by at least or more of been obtain of its origin is to be subtemperature six hours	crushed between/s at the first below is reach; 100mV; or its original thickned, the voltage all thickness, to be does not except this test.	ckness. ge drops by at lea che pressure shall crush only. Cells	ces. The The crust st 100m be relea and com	crushing is thing is to the control of the control	g is to be to be to be re, or the rells meet
样品状态 Sample status	C1#~C5#: 第一个 C1#~C5#: first cyc C6#~C10#: 第二十 C6#~C10#: after 2	cle at 50% of 五个循环 5	f the design 0%的额定	n rated capacity 容量的电芯。				
样品编号 Sample No.	样品表面最高温度 Max External Temperature(℃)	测试结果 Test result	备注 Remark	样品编号 Sample No.	样品表面最高 Max Externa Temperature(ıl Tes	试结果 st result	备注 Remark
C1#	25.7	o ما	/	C6#	26.0	O	О	/ CHI
C2#	26.3	О	1	C7#	26.2	CHINE	O	Red /
C3#	26.0	О	100%	C8#	25.7		0	/
C4#	25.8	O	/	C9#	26.4	J 05	О	M. C. THO
C5#	25.8	o o	We D.	C10#	25.7	300	О) /

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.

^{1.} 本报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座

地址: 中国/ 州巾大河区珠江新城化城大道66号B座 岡址: www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 11 of 14

序号 No.	附表 7 Appendix 7	测试项目名称 Name of test	过度充电 Overcharge
标准要求 Requirement of Standard	信或 22V 两者中的较少者。 (b) 制造商建议的充电电压大可再充电电池组在环境温度 ⁻ The charge current shall be twice current. The minimum voltage of (a) When the manufacturer's recovoltage of the test shall be the lest 22V. (b) When the manufacturer's record the test shall be 1.2 times the manufacturer are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the manufacturer's are to be conducted at an end of the test shall be 1.2 times the test shall be 1.2 times the manufacturer's are the test shall be 1.2 times the test shall be 1.2 times the test	大于 18V 时, 试验的最小电压下试验 24h。试样在试验后 7 the manufacturer's recommend the test shall be as follows: smmended charge voltage is not ser of two times the maximum charge voltage. The duration of the temperature. The duration of the temperature.	电压应是电池组最大充电电压的两 应是最大充电电压的 1.2 倍。 不内应无解体和无燃烧。 ded maximum continuous charge ot more than 18V, the minimum
样品状态 Sample status	b5#~b6#: 第一个循环完全充电 b5#~b6#: first cycle in fully cha b7#~b8#: 第二十五个循环完全 b7#~b8#: after 25 cycles ending	arged states;	TOE OF OF WHILE
样品编号 Sample No.	测试结果 Test result	The state of the s	备注 Remark
b5#	A CHAIL	A KECKIII	TOME I' NICUS
b6#	O ST	CTONE V	OUCUS / IMETH
b7#	Service Co.	JOU CUS JENET	P Lit
b8#	KONIES O	JAKELE SE	

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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.







GUANGZHOU CUSTOMS DISTRICT TECHNOLOGY CENTER

地址:中国广州市天河区珠江新城花城大道66号B座

地班:中国)和中本内区等的经验。 网址:www.iqtc.cn 邮编: 510623 Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E)

Date: 2021-05-23 Page: 12 of 14

序号 No.	附表 8 Appendix	8	测试项目名 Name of to		强制放电 Forced discharge		
标准要求 Requirement of Standard	定的最大放电电流的燃烧。 Each cell shall be for D.C. power supply a manufacturer. The spappropriate size and interval (in hours) eq	的条件下强制定 ced discharged t an initial curre pecified dischar rating in series ual to its rated	放电。原电池或可即 at ambient temperatent equal to the maxing current is to be of with the test cell. Eacapacity divided by	F充电电池在试验后 ture by connecting it mum discharge curre ptained by connecting the cell shall be force the initial test curren			
样品状态 Sample status	C11#~C20#: 第一/ C11#~C20#: first cyc C21#~C30#: 第二- C21#~C30#: after 25	cle in fully disc 上五个循环完全	harged states; è放电的电芯。	S CHARETHOU CUE	CANACTA		
样品编号 Sample No.	测试结果 Test result	备注 Remark	样品编号 Sample No.	测试结果 Test result	备注 Remark		
C11#	O OTHER	/	C21#	0	AECHINA /		
C12#	О		C22#	0	e CT / NE THE		
C13#	0	5 /	C23#	O NEODIE	o P		
C14#	0	46	C24#	0	athon /		
C15#	0	(SDIS)	C25#	, O	1		
C16#	0	° / 1	C26#	О			
C17#	0	J. N.	C27#	O	64 / 18		
C18#	0	/	C28#	0 v	1,01		
C19#	0	/ 6	C29#	0	9		
C20#	O. A.	-11/01/2	C30#	0	5011 1		

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.

^{1.} 表报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested. 2. 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.









地址:中国广州市天河区珠江新城花城大道66号B座 网址: www.iqtc.cn 邮编: 510623

Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China Website: www.iqtc.cn Postcode: 510623

01052100002315-1(E) No:

Date: 2021-05-23 Page: 13 of 14

样品图片

Photo of the sample

电池正面外观



电池侧面外观

Battery side appearance



电池背面外观

Battery back appearance



电池铭牌(含 Wh) Battery nameplate (With Wh)



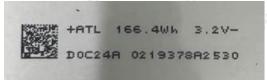
电芯





电芯标签

Cell label



本报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested.
 未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.

州海关技术







址:中国广州市天河区珠江新城花城大道66号B座

网址: www.igtc.cn 邮编: 510623

Add: Tower B, No.66 Huacheng Avenue, Zhujiang Xincheng, Tianhe District, Guangzhou, China

Website: www.iqtc.cn Postcode: 510623 01052100002315-1(E)

Date: 2021-05-23 Page:

声 朋 Statement

1.本报告无检验单位公章无效。

The test report is invalid without the official stamp of IQTC.

2本报告无批准人、审核人及主检人签名无效。

The test report is invalid without the signatures of Approver, Checker and Appraiser.

3.本报告涂改无效。未经本实验室书面同意,不得部分地复制本报告。

The test report is invalid if altered. Nobody is allowed to photocopy or partly photocopy this report without written permission of IQTC.

4.客户必须如实提供样品及资料,并保证申报品名和样品以及运输货物相同,否则本检测单位不 承担任何相关责任。

The client should provide samples and relevant data, at the same time, they should guarantee the consistence of the product's name they declared, the samples they provided and the goods to be transported. Otherwise we will not bear any relevant responsibilities.

5.对检验报告若有异议,应于收到报告之日起十五天内向检验单位提出。

Objection to the test report must be submitted to IQTC within 15 days

6.本报告仅对送检样品负责。

The test report is valid for the tested samples only.

7.检验地址:广东省广州市科学城南翔支路 1 号 C102 房(轻工科学城实验室)

Inspection Address: Room C102, No.1 Nanxiangzhi Road, Science City, Guangzhou, Guangdong, China (Light Industry Testing Laboratory in Science City)

电话(Tel): 020-38669019-811

电子邮箱(E-mail): battery@igtcnet.cn; itl@igtcnet.cn

报告结束 End of report *

[.] 本报告结果仅对测试样品负责。The results in this report are relevant only to the sample(s) tested.

未经签发机构书面同意,不得部分引述或复制本报告。Without written permission of IQTC, this report shall not be quoted or reproduced except in full.