



Page 1 / 16 Pages

# 检测报告 UN38.3

lame of sample:	LiFePO4 Battery
产品名称:	磷酸铁锂电池
Model/型号规格:	LC48/10000
Client:	Guangdong Chuangxin New Energy Technology Co., Ltd
委托单位:	广东创鑫新能源科技有限公司
Classification:	Commission Test
检测类别:	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
	1700

# Shenzhen Tiansu Calibration and Testing Co.,Ltd

深圳天溯计量检测股份有限公司

Shenzhen Tiansu Calibration and Testing Co.,Ltd 深圳天溯计量检测股份有限公司

B/1,4, NO.2 Jinlong Road, Longgang District, Shenzhen, China

深圳市龙岗区宝龙街道锦龙大道2号1栋、4栋

Web: www.tiansu.org E-mail: tsjc@tiansu.org Tel: 0755-89457984



UN38.3



Page 2 / 16 Pages

Name of samples: LiFePO4 Battery	Trade mark: -
样品名称: 磷酸铁锂电池	商标: -
Commissioned by: Guangdong Chuangxin New Energy Technology Co., Ltd 委托单位: 广东创鑫新能源科技有限公司	Commissioner address: No. 28 Xinglong Road, Shixin Community, Zhangmutou Town, Dongguan City, Guangdong Province 委托单位地址: 东莞樟木头镇石新兴隆路 28 号
Manufacturer by: Guangdong Chuangxin New Energy Technology Co., Ltd 制造单位: 广东创鑫新能源科技有限公司	Manufacturer address: No. 28 Xinglong Road, Shixin Community, Zhangmutou Town, Dongguan City, Guangdong Province 制造单位地址: 东莞樟木头镇石新兴隆路 28 号
Manufacturer's Contact Information 制造商联系信息: Phone: 13925827568 Email: 442483539@qq.com	Manufacturer's Web Site 制造商网址:
Type/Model	Shape: Approximate Cuboid
型号规格: LC48/10000	样品形状: 近长方体
Appearance color: Black	Sample size
样品颜色: 黑色	样品尺寸: L(449.0mm)* W(480.0mm)*H(255.0mm)
Rated info.	Cell quantity
额定信息: 51.2V/230Ah/11.77KWH	组成电芯数量: 16PCS
Quantity of sample: 30cells+8batteries	Cell model
样品数量: 30 个电芯+8 个电池	电芯型号: L173F230
Limited charge voltage	Cut-off voltage
充电限制电压: 57.6V	放电截止电压: 48V
Standard charge current	Max continuous charge current
标准充电电流: 75A	最大持续充电电流: 150A
Standard discharge current	Max continuous discharge current
标准放电电流: 75A	最大持续放电电流: 150A
Receiving date	Sample identification
接样日期: 2022-07-05	样品标识序号: B01#~B08#,C01#~C30#
Completing date	Test item: 8 items
完成日期: 2022-07-15	测试项目: 8 项
Test conclusion:	

#### Test conclusion:

检测结论:

The LiFePO4 Battery submitted by Guangdong Chuangxin New Energy Technology Co. Utd are lessed according to Section 38.3 of The Seventh Revised Edition of the United Nations Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria (ST/SG/AC.10/11/Rev.7/Section38.3). The test results comply with the relevant requirements of the standard.

由广东创鑫新能源科技有限公司送检的磷酸铁锂电池,依据联合国《关于危险货物运输增建议书,试验和标准手册》第七修订版第 38.3 节进行检测,测试结果符合标准相关要求。

Date of issue: Jul. 19,2022<sup>20</sup> 签发日期: 2022 新793

批准 Approved by

段沿涛

审核 Reviewed by



主检 Tested by

徐志龙

Page 3 / 16 Pages

Description and illustration of the sample:

样品说明及描述:

11	nn hr 1/1 // /m Fr	• *** *** ****	E Mile Manual Ma	
	Test item 测试项目	Sample No. 样品编号	State 头侧 W状态	Remark 备注
	T.1~T.5	B01#~B02#	at first cycle in fully charged states; 在第一个循环完全充电;	Battery
76	。 5.41.1~1.5	B03#~B04#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	电池
	Fian Su	C01#~C05#	at first cycle at 50% of the design rated capacity; 在第一个循环充电 50%的额定容量;	Cell
	T.6	C06#~C10#	after 25 cycles ending in fully charged at 50% of the design rated capacity; 在第二十五个循环充电 50%的额定容量;	电芯
	T.7	B05#~B06#	at first cycle in fully charged states; 在第一个循环完全充电;	Battery
*7	an Su	B07#~B08#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	电池 电池
06	T.8	C11#~C20#	at first cycle in fully discharged states; 在第一个循环完全放电;	Cell
W	1.0	C21#~C30#	after 25 cycles ending in fully discharged states; 在第二十五个循环完全放电;	电芯

$\Box$	Accri	ation	of the	campling	procedure	٠.
u	1000 II	JUUIT	OI LITE	Sampling	procedure	۶.

取样程序的说明:

/

#### Description of report revision:

报告修订的说明:

/

#### Remarks:

备注:

The LiFePO4 Battery by Guangdong Chuangxin New Energy Technology Co., Ltd are large batteries.

由广东创鑫新能源科技有限公司所送的磷酸铁锂电池是大电池。



Page 4 / 16 Pages

# Photos of Battery\电池图片







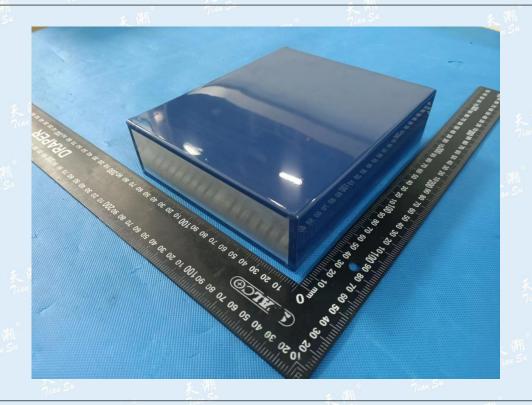
**Rep. No.:TSZ22050077-P06-R01**Page 5 / 16 Pages

LiFePO4	1 Battery
Model	LC48/10000
Capacity	230AH11.77KWH
Normal voltage	51.2V
Charge cut-off voltage	57.6V
	48-57.6V
Discharge cut-off voltage.	48V
Recommend Charge & c	discharge current75A
lax. Charge & discharge	current150A



Page 6 / 16 Pages

## Photos of Cell\电芯图片





Page 7 / 16 Pages

38.3.4	Procedure/测记	式步骤				天學	_
<b>美棚</b>	Test 1: Altitud	le simulation/	测试 1: 高度模	拟	天湖	Tream - T	
	at ambient tem	nperature (20°	C±5℃).		6kPa or less for a Pa 的环境中贮存	at least six hour 不少于 6 个小时。	
	Requirement/	示准要求:	Z W		z M	7ian Su	
38.3.4.1	1.Cells and ba 样品质量损	55	oss limit: ≤0.1%	· 美潮		<b>天</b> 潮	P P
美術 7ian Su	applicable to	test cells and	ss than 90%, Th batteries at full 氐于试验前开路।	discharged sta		美 (W) 7/1/1/5	6 (
	和电芯。 3.No leakage,		disassembly, n	o rupture and i		54 天潮。	天衛 Tians
	和电芯。 3.No leakage,		disassembly, n	o rupture and i	no fire.	54 天潮。	天衛 Tian S 天衛 Tian Su
Sample	和电芯。 3.No leakage, 样品(电池) Result	应无漏液、无 e Test	disassembly, n t排气、无解体、	o rupture and i	no fire.	54 天潮。	Test result
Sample No. 样品编号	和电芯。 3.No leakage,样品(电池) Result 测试结果 Before	应无漏液、无 e Test	disassembly, n t排气、无解体、	no rupture and i 无破裂以及无	no fire. 着火现象的发生。	美洲 Tian Su Tian Su	Test result 测试结果
No. 5	和电芯。 3.No leakage, 样品(电池) Result 测试结果 Before 测试 Mass	应无漏液、无 e Test l.前 Voltage	disassembly, n 上排气、无解体、 After 测i Mass	no rupture and i 无破裂以及无 Test 式后 Voltage	no fire. 着火现象的发生。 Mass loss	Residual OCV	result
No. 样品编号	和电芯。 3.No leakage, 样品(电池) Result 测试结果 Before 测试 Mass 样品质量 (kg)	应无漏液、无 e Test 、前 Voltage 开路电压(V)	disassembly, n 上排气、无解体、 After 测记 Mass 样品质量(kg)	no rupture and i 无破裂以及无 Test 式后 Voltage 开路电压(V)	no fire. 着火现象的发生。 Mass loss 质量损失(%)	Residual OCV 剩余电压(%)	result 测试结身
No. 样品编号 B01#	和电芯。 3.No leakage, 样品(电池) Result 测试结果 Before 测试 Mass 样品质量 (kg) 84.125	应无漏液、无 e Test i前 Voltage 开路电压(V) 54.551	disassembly, n 上排气、无解体、 After 测记 Mass 样品质量(kg) 84.125	Test 式后 Voltage 开路电压(V) 54.507	mo fire. 着火现象的发生。 Mass loss 质量损失(%)	Residual OCV 剩余电压(%)	result 测试结身 P

Other supplements: Test result "P" decides that the test item passes.

Page 8 / 16 Pages

38.3.4	Procedure/测	试步骤					_
天湖	Test 2: Therr	mal test/测试 2	: 温度测试		美棚	-71 an 2"	1
	72℃±2℃, foll ±2℃, The ma procedure is to batteries are 将电芯和电池 件下贮存不少	lowed by storag iximum time int to be repeated to be stored for 在温度为 72℃: 于6个小时,两	ge for at least s erval between t until 10 total cy 24 hours at an ±2℃的条件下贮	ix hours at a terest temperature cles are completed in bient temperated are completed for the complete for	st temperature e e extremes in 30 ete, after which a ture (20℃±5℃). 小时,然后,在这	minutes, This	天湖 7ian Su ian Su
38.3.4.2	Requirement/	/标准要求: atteries Mass lo	oss limit: ≤0.1%	- M	Tida Sil	美術 7iau.S	Р
	applicable t 样品试验后 和电芯。 3.No leakage	t voltage not lead to test cells and 开路电压应不信	I batteries at ful 氐于试验前开路 o disassembly, r	l discharged st 电压的 90%,此 no rupture and	要求不适用于完	全放完电的电池	Tean Su Tean Su Tean Su
	Result 测试结果	7ian Su	<b>美潮</b>	天 Vin 7iau Su	F. 70	孙 au Sa	美質
Sample No.		e Test 式前		Test 式后	Mass loss	Residual OCV	Test result
样品编号	Mass 样品质量 (kg)	Voltage 开路电压(V)	Mass 样品质量(kg)	Voltage 开路电压(V)	质量损失(%)	剩余电压(%)	测试结果
B01#	84.125	54.507	84.125	54.207	0.00	99.45	Р
B02#	84.111	54.855	84.111	54.592	0.00	99.52	S P
B03#	84.129	55.279	84.129	55.019	0.00	99.53	Р
4.61			7,00		C44	44.0	T. All

Other supplements: Test result "P" decides that the test item passes.

Page 9 / 16 Pages

38.3.4	Procedure/测	试步骤					
天湖	Test 3: Vibra	tion/测试 3: 拢	t动 7 mm 5 m	0.26	天哪,	-71an -2" - 289	7
	distorting the be a sinusoid Hz traversed each of three 将电芯和电池加至 200Hz,	cells in such a al wave form w in 15 minutes, mutually perpe 年固地安装在抄	manner as to faith a logarithmic This cycle shall endicular mount 表动台的台面上 到 7Hz 为一个循	eithfully transmi c sweep betwee be repeated 12 ing position of t , 然后开始振动 环, 一个循环打	en 7 Hz and 200 2 times for a tota	ne vibration shall Hz and back to 7 I of 3 hours for 形式,以 7Hz 增	天湖 Tian Su ian Su
38.3.4.3	Requirement	/标准要求:	position .	支網	- Fran Si	- 7 (1) 10 7 (a) 5	Р
7 MA	20,50	atteries Mass lo 员失≤0.1%.	oss limit: ≤0.1%	Fran Su			美湖 Tian Su
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		D 200	4,000	relating to voltage	ge is not	7,000
		to test cells and			ates. 要求不适用于完全	<b>公社空由的由</b> 独	天樹
	和电芯。	1 万 岁 电压应 7 门	以1瓜型則月時	巴压的 90 %,此	女不个也用「元金	主放元屯的屯池	Jian Su
		,no venting, no	1100-	•	no fire. 着火现象的发生		Į.
	Result 测试结果		<b>美術</b>	Tion Su	·	例 (例 (5°	文件 71m5
Sample No.		re Test 试前		r Test 试后	Mass loss	Residual OCV	Test result
样品编号	Mass 样品质量 (kg)	Voltage 开路电压(V)	Mass 样品质量(kg)	Voltage 开路电压(V)	质量损失(%)	剩余电压(%)	测试结果
B01#	84.125	54.207	84.125	54.153	0.00	99.90	Р
B02#	84.111	54.592	84.111	54.581	0.00	99.98	Р
B03#	84.129	55.019	84.129	55.002	0.00	99.97	Pian
B04#	84.123	54.118	84.123	54.086	0.00	99.94	Р
Other suppl	ements : Tes	t result "P" dec	ides that the te	st item passes.	gian Su		天明

Page 10 / 16 Pages

	Procedure/测	<b>引试步骤</b>					_
天湖。	Test 4: Shoc	k/测试 4: 冲击	F VIII Tion Su	25	天湖.	F](an⊃" → 18A	2
Tian Su Tian Su Tian Su Tian Su Tian Su Tian Su 38.3.4.4	to a half-sine smaller) and subjected to a smaller) and three shocks three mutually 以稳固的托架(或与《 <sup>100830</sup> /须经受最大加每个电池或电	shock of peak a pulse duration of a half-sine of perpulse duration of in the positive of perpendicular 固定住每个电芯中的较小值)的速度 50gn(或型池组须在三个互	acceleration of of 6 milliseconds ak acceleration of 11 millisecond direction follower mounting posits 和电池样品的 4半正弦的加速度 可能 1 millisecond 中的较人 1 millisecond 中的较人 1 millisecond 中的较人 1 millisecond posits 和垂直的电池 1 millisecond posits 和垂直的电池 1 millisecond posits 和 1 millisecond po	150g <sub>n</sub> (or Accelos, large cells and of 50g <sub>n</sub> (or Accelos. Each cell or d by three shootions of the cell of the	eration(gn)= \( \sum_{\text{in}}^{\text{in}} \) and large batteries beleration(gn)= \( battery shall be between the negative or battery for a town battery for	shall be \$\int_{\text{miss}}^{\text{50000}}\$, which is subjected to we direction of otal of 18 shocks.  也以峰值为 150gn	夫爾 Tian Su M au Su
	Requirement	atteries Mass lo 失≤0.1%.	oss limit: ≤0.1%		谢 · 5" 天湖 <sup>°</sup> 7/ar 5"	K M Tian Su	Jian Si 文例
	applicable t 样品试验后 和电芯。 3.No leakage	to test cells and 开路电压应不值 , no venting, no	batteries at ful 氐于试验前开路 disassembly, r	discharged sta 电压的 90%,此 o rupture and r	ates. 要求不适用于完全	全放完电的电池	7ian Su l a ≵ ji
A X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	applicable t 样品试验后 和电芯。 3.No leakage	to test cells and 开路电压应不值 , no venting, no ) 应无漏液、无	batteries at ful 氐于试验前开路 disassembly, r	discharged sta 电压的 90%,此 o rupture and r	ates. 要求不适用于完全 no fire.	全放完电的电池	gian >"  s  gian = 1
Sample	applicable 样品试验后 和电芯。 3.No leakage 样品(电池 Result/测试氧	to test cells and 开路电压应不值 , no venting, no ) 应无漏液、无	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、	discharged sta 电压的 90%,此 o rupture and r	ates. 要求不适用于完全 no fire.	全放完电的电池	Test
Sample No. 样品编号	applicable 样品试验后 和电芯。 3.No leakage 样品(电池 Result/测试氧	to test cells and 开路电压应不值 , no venting, no ) 应无漏液、无 告果 re Test	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、	discharged sta 电压的 90%,此 o rupture and r 无破裂以及无	ates. 要求不适用于完全 no fire. 着火现象的发生。	全放完电的电池 7/2015	Test result 测试结果
No.	applicable 样品试验后 和电芯。 3.No leakage 样品(电池 Result/测试氧 Befor 测i	to test cells and 开路电压应不作 , no venting, no ) 应无漏液、无 <b>E E</b> Test 式前  Voltage	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、 After 测i	discharged sta 电压的 90%,此 o rupture and r 无破裂以及无 Test 式后 Voltage	ates. 要求不适用于完全 no fire. 着火现象的发生。 Mass loss	è放完电的电池 Residual OCV	result
No. 样品编号	applicable 样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor Mass 样品质量 (kg)	to test cells and 于开路电压应不作 ,no venting, no )应无漏液、无 <b>法果</b> re Test 式前 Voltage 开路电压(V)	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、 After 测证 Mass 样品质量(kg)	discharged sta 电压的 90%,此 o rupture and r 无破裂以及无 Test 式后 Voltage 开路电压(V)	ates. 要求不适用于完全 no fire. 着火现象的发生。 Mass loss 质量损失(%)	Residual OCV 剩余电压(%)	result 测试结身
No. 样品编号 B01#	applicable 样品试验后和电芯。 3.No leakage 样品(电池 Result/测试结 Befor Mass 样品质量(kg) 84.125	to test cells and 开路电压应不作,no venting, no ) 应无漏液、无法果 re Test 式前 Voltage 开路电压(V) 54.153	batteries at ful 纸于试验前开路 disassembly, r 上排气、无解体、 After 测i Mass 样品质量(kg) 84.125	discharged sta 电压的 90%,此 or rupture and r 无破裂以及无 Test 式后 Voltage 开路电压(V) 54.110	mass loss 质量损失(%)	Residual OCV 剩余电压(%)	result 测试结果 P

 $\begin{tabular}{ll} \textbf{Other supplements} & : & Test result "P" decides that the test item passes. \\ \end{tabular}$ 

Page 11 / 16 Pages

38.3.4	Procedure/测试步骤			_
<b>美潮</b>	Test 5: External short ci	rcuit/测试 5:外部短路	M Teams	, 2
7:an Su 14A 7:an Su 38.3.4.5	temperature reaches 57℃ circuit condition with a total circuit condition is continuatemperature has returned hour for the test to be con保持试验环境温度稳定在此温度下,将其正负极用小	ested shall be temperature stabilized C±4℃ and then the cell or battery shall external resistance of less than 0.1 led for at least one hour after the cell to 57℃±4℃, the cell or battery must locluded.  57℃±4℃,以使电芯或电池样品外表流下 0.1 欧姆的线路短接,待电芯或电池对电芯或电池必须进一步观察 6 个小时	all be subjected to a short ohm at 57℃±4℃, This short or battery external case be observed for a further six L度达到 57℃±4℃, 然后,在	ian Su
	170℃; 电芯或电池的外壳温度/	oture and no fire during the test and w	天湖 7iao 54	天湖 Tian Si 天湖 Tian Sa
	Result 测试结果	天湖 Tun St	大Min Tian Su	**************************************
Sample No. 样品编号	大明 7iau Su 7iau Su	Max External Temp 样品表面最高温度(℃)	天開 7ian Sa	Test result 测试结果
B01#	天棚	57.9	天瀬 7:00 54	Р
B02#	KM man 5"	58.3	K VAN Tian Sa	Р
D00#	2 湖	58.5 7 ian 5 <sup>a</sup>	<b>天</b> 潮	Р
B03#				

Other supplements: Test result "P" decides that the test item passes.

Rep. No.	:TSZ22050077-	-P06-R01
----------	---------------	----------

Page 12 / 16 Pages

3.3.4	Procedure/测试步骤
z MA	Test 6: Crush\Impact/
	测试 6: 挤压(适用)
	撞击(不适用)
	Crush 挤压
	A cell or component cell is to be crushed between two flat surfaces. The crushing is to be gradual with a speed of approximately 1.5 cm/s at the first point of contact. The crushing is to be continued until the first of the three options below is reached.
	(a) The applied force reaches 13kN±0.78kN;
	(b) The voltage of the cell drops by at least 100 mV;
	(c) The cell is deformed by 50% or more of its original thickness.
	Once the maximum pressure has been obtained, the voltage drops by 100mV or more, or the cell is deformed by at least 50% of its original thickness, the pressure shall be released. 电池芯或组成电池芯在两个平面间挤压。挤压在第一个接触点以约 1.5cm/s 的速度慢慢进行,直到下面三个选项之一达到为止:
	(a)作用力达到 13kN±0.78kN;
	(b)电池芯电压降至少达到 100mV;
	(c)电池厚度和最初比较变形至少 50%。
	一旦达到最大压力,电压降超过 100 mV 或者电池芯变形超过 50%,压力应该解除。
	Impact 7cm 50
	撞击 M
4.6	(applicable to cylindrical cells not less than 18mm in diameter)
天 Pian S	The sample cell or component cell is to be placed on a flat smooth surface. A 15.8 mm $\pm$ 0.1 mm diameter, at least 6 cm long, or the longest dimension of the cell, whichever is greater, Type 316 stainless steel bar is to be placed across the centre of the sample. A 9.1 kg $\pm$ 0.1 kg mass is to be dropped from a height of 61cm $\pm$ 2.5 cm at the intersection of the bar and sample in a controlled manner using a near frictionless, vertical sliding track or channel with minimal drag on the falling mass. The vertical track or channel used to guide the falling mass shall be oriented 90 degrees from the horizontal supporting surface.
	The test sample is to be impacted with its longitudinal axis parallel to the flat surface and perpendicular to the longitudinal axis of the 15.8 mm ± 0.1 mm diameter curved surface lying across the centre of the test sample. Each sample is to be subjected to only a single impact.
	Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during the test and within six hours after this test.
	(适用于直径不小于 18 毫米的圆柱形电池)将电池或元件电池样品平放在一个平面上,其纵轴平行于测试台面年,将一直径为 15.8 mm±0.1 mm 的 316 型不锈钢棒横放在电池中心位置。然后,将一质量为 9.1 kg±0.1 kg 的物体从 61cm±2.5 cm 的高度落向样品。样品在进行试验时,其外表温度应不超过 170℃。且试验结束后 6 个小时之内,样品应无解体、无起火现象发生。
	Requirement/标准要求:
	1.Cells and component cells meet this requirement if their external temperature does not exceed 170℃;
	电芯的外壳温度应不超过 170℃;
	2. No disassembly, no fire during the test and within six hours after this test.

试验后6小时内无解体、无起火。

Page 13 / 16 Pages

	Result 测试结果	天開 Tean Su 天開 Tean Su	7ian >" 手
Sample No. 样品编号	OCV prior to test 试验前电压(V)	Max External Temp 样品表面最高温度(℃)	Test result 测试结果
C01#	3.269 5 MA	24.0	P-WA
C02#	3.244	23.6 Jun Su	Р
C03#	3.281	24.2	Ļ P
C04#	3.274	23.7 K	Р
C05#	3.280	23.9	Р
C06#	3.279	23.3	Р
C07#	3.258	24.8	Pian Su
C08#	3.262 June 54	24.4	Р
C09#	3.269	23.1	Tian P
C10#	3.261 £ M	23.6 Jun Su	Р

#### Other supplements:

Test result "P" decides that the test item passes.

其他补充:

测试结果"P"代表判定该测试项目通过。

Page 14 / 16 Pages

38.3.4	Procedure/测试步骤			_
71an Su 71an Su 38.3.4.7	Test 7: Overcharge/测词	式7: 过度充电	ej can - "	<b>≱</b> 0.
	When the manufacturer's recommended charge voltage is not more than 18V, the minimum voltage of the test shall be the lesser of two times the maximum charge voltage of the or 22V, whichever is less. When the manufacturer's recommended charge voltage is more than 18V, the charging voltage of the test shall be 1.2 times maximum charge voltage. The charging current is 2 times of the maximum charging current recommended by the manufacturer.  如果厂家推荐的充电电压不超过 18V,本测试的最小充电电压应该是两倍的厂家标定最大充电电压或者是 22V,取其中较小者。如果厂家推荐的充电电压超过 18V,充电电压应该为 1.2			P
	( ) 倍的厂家标定最大充电电	压。 充申申流为厂家推荐的最大充申申流;	2 倍。	
	Requirements/标准要求: No disassembly and no t	压。充电电流为厂家推荐的最大充电电流 2 fire during the test and within seven days a 后 7 天内,应无解体和无起火现象发生。	— ý5" 天湖°	天 in Tian
	Requirements/标准要求: No disassembly and no t	fire during the test and within seven days a	— ý5" 天湖°	Final Su
Sample No. 样品编号	Requirements/标准要求: No disassembly and disasse	fire during the test and within seven days a	— ý5" 天湖°	Test result 测试结果
•	Requirements/标准要求: No disassembly and disassembly	fire during the test and within seven days a 后 <b>7</b> 天内,应无解体和无起火现象发生。 OCV prior to test	— ý5" 天湖°	
样品编号	Requirements/标准要求: No disassembly and disassembly	fire during the test and within seven days a 后7天内,应无解体和无起火现象发生。 OCV prior to test 试验前电压(V)	— ý5" 天湖°	测试结果
B05#	Requirements/标准要求: No disassembly and disassembly	fire during the test and within seven days a 后 7 天内,应无解体和无起火现象发生。 OCV prior to test 试验前电压(V) 54.551	— ý5" 天湖°	测试结果

Page 15 / 16 Pages

天湖 7ian Su 天河 38.3.4.8 平7ian Su 天河 7ian Su	Procedure/测试步骤  Test 8: Forced discharge/测	试8: 强制放电	:100.5	天湖 Fran Si	380
	Each cell shall be forced discharged at ambient temperature by connecting it in series with a 12V D.C power supply at an initial current equal to the maximum discharge current specified the manufacturer The specified discharge current is to be obtained by connecting a resistive load of the appropriate size and rating in series with the test cell, Each cell shall be forced discharged for a time interval(in hours) equal to its rated capacity divided by the initial test current(in ampere).  在 20℃±5℃的环境温度下,将单个电芯连接在 12V 的直流电源上进行强制放电,此直流电源提供每个电芯初始电流为制造厂指定的最大放电电流,放电时间为额定容量除以初始电流。				
	Requirements/标准要求: No disassembly and no fire during the test and within seven days after the test. 试验样品在试验中和试验后 7 天内,应无解体和无起火现象发生。				
	· 50 美術		- 240	Tian 54	X 1971
	Result 测试结果				
Sample No. 样品编号	A WA	Test result 测试结果	Sample No. 样品编号	OCV prior to test 试验前电压(V)	Test result 测试结果
1480	测试结果 OCV prior to test		- 264		2 6
样品编号	测试结果 OCV prior to test 试验前电压(V)	测试结果	样品编号	试验前电压 (V)	测试结果
样品编号 C11#	测试结果 OCV prior to test 试验前电压(V) 2.908	测试结果	样品编号 C21#	试验前电压 (V) 2.897	测试结果 P
样品编号 C11# C12#	测试结果 OCV prior to test 试验前电压(V) 2.908 2.886	测试结果 P P	样品编号 C21# C22#	试验前电压 (V) 2.897 2.907	测试结果 P P
样品编号 C11# C12# C13#	测试结果 OCV prior to test 试验前电压(V) 2.908 2.886 2.915	测试结果 P P	样品编号 C21# C22# C23#	试验前电压 (V) 2.897 2.907 2.866	测试结果 P P
样品编号 C11# C12# C13# C14#	测试结果 OCV prior to test 试验前电压(V) 2.908 2.886 2.915 2.874	测试结果 P P P	样品编号 C21# C22# C23# C24#	试验前电压 (V) 2.897 2.907 2.866 2.950	测试结果 P P P
样品编号 C11# C12# C13# C14# C15#	测试结果 OCV prior to test 试验前电压(V) 2.908 2.886 2.915 2.874 2.886	测试结果 P P P	样品编号 C21# C22# C23# C24# C25#	试验前电压 (V) 2.897 2.907 2.866 2.950 2.880	测试结果 P P P
样品编号 C11# C12# C13# C14# C15# C16#	测试结果 OCV prior to test 试验前电压(V) 2.908 2.886 2.915 2.874 2.886 2.895	测试结果 P P P	样品编号 C21# C22# C23# C24# C25# C26#	试验前电压 (V) 2.897 2.907 2.866 2.950 2.880 2.914	测试结果 P P P P
C11# C12# C13# C14# C15# C16# C17#	测试结果 OCV prior to test 试验前电压(V) 2.908 2.886 2.915 2.874 2.886 2.895 2.911	测试结果 P P P P	样品编号 C21# C22# C23# C24# C25# C26# C27#	试验前电压 (V) 2.897 2.907 2.866 2.950 2.880 2.914 2.874	测试结果 P P P P

Page 16 / 16 Pages

# **STATEMENTS**

声明

- 1. The test report is invalid without the official stamp of Tiansu. 本报告无检测单位印章无效。
- 2. This report shall not be copied partly without the written approval of Shenzhen Tiansu Calibration and Testing Co.,Ltd.

除非全部复制,否则无深圳天溯计量检测股份有限公司书面批准本报告不得部分复制。

- 3. This report is invalid without the signature of the approver, reviewer, and tester. 本报告无批准人、审核人及检测人签名无效。
- 4. The test report is invalid if altered. 本报告涂改无效。
- 5. Objections to the test report must be submitted to Tiansu within 15 days. 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。
- 6. The test report is valid for the tested samples only. 本报告仅与送检样品有关。

**----**报告结束-----