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# 检测报告 UN38.3

lame of sample:	LiFePO4 BATTERY PACK
产品名称:	磷酸铁锂电池组
Model/型号规格:	LP20-48200
Client:	MUST ENERGY (GUANGDONG) TECHNOLOGY CO.,LTD
委托单位:	美世乐(广东)新能源科技有限公司
Classification:	Commission Test
检测类别:	A

# 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

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UN38.3



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Rep. No., 13223040432-P01-R01-Allido1	Page 27 To Pages
Name of samples: LiFePO4 BATTERY PACK	Trade mark:
样品名称: 磷酸铁锂电池组	商标:
Commissioned by	Commissioner address:
Commissioned by:	1-5F, 7F, 9F, 10F of No.8 building,No.115,Zhangcha Road
MUST ENERGY (GUANGDONG) TECHNOLOGY	1,Chancheng district,Foshan city,Guangdong
CO.,LTD	Province,P.R.China
委托单位: 744 54	委托单位地址:
美世乐(广东)新能源科技有限公司	中国广东省佛山市禅城区张槎一路 115 号八座一层、二层、三层、四层、五层、七层、九层、十层
the state of the s	Manufacturer address:
Manufacturer by:	1-5F, 7F, 9F, 10F of No.8 building,No.115,Zhangcha Road
MUST ENERGY (GUANGDONG) TECHNOLOGY	1,Chancheng district,Foshan city,Guangdong
COLTD	Province, P.R. China
制造单位:	制造单位地址:
美世乐(广东)新能源科技有限公司	中国广东省佛山市禅城区张槎一路 115 号八座一层、二层、三
天巴小 () 示) 机 化 你 什 仅 有 സ 公 可	层、四层、五层、七层、九层、十层
Manufacturer's Contact Information	Manufacturer's Web Site
制造商联系信息:	制造商网址: 4
Phone: 15012636534 Email: rd-cp@mustpower.cn	www.mustpower.cn
Thomas reorgeocer Email: To optomorem	www.mac.powon.on
Type/Model 5	Shape: Approximate cuboid
型号规格: LP20-48200	样品形状: 近长方体
Total Section 1	The same of the sa
Appearance color: Black and White	Sample size
样品颜色: 黑白色	样品尺寸: L(540.0mm)*W(499.0mm)*H(664.0mm)
11 2000.	11 paye 1: 2(0 10:011111) **(100:011111) **(100:011111)
Rated info.	Cell quantity
额定信息: 51.2V/200Ah/10.24KWh	组成电芯数量: 16PCS 448 764 54
数尺 旧心: 01.2√/200/ til/ 10.24KWII	业从七心从里. 101 00
Quantity of sample: 30cells+8batteries	Cell model
样品数量: 30 个电芯+8 个电池	电芯型号: C15LFP
行即数里.30 十七心 10 十七心	电心至 9. 013년1
Limited charge voltage	Cut-off voltage
充电限制电压: 57.6V	放电截止电压: 44.0V
光电限制电压. 37.0V	放电截止电压.44.0V
Standard charge current	Max continuous charge current
标准充电电流: 20A	最大持续充电电流: 50A
7 H Su	**************************************
Standard discharge current	Max continuous discharge current
标准放电电流: 50A	最大持续放电电流: 100A
WYEN C C.M. 30A	秋八羽次从七七加. 100A
Receiving date	Sample identification
接样日期: 2022.09.19	样品标识序号: C01#~C30#, B01#~B08#
汝什日朔. 2022.09.19	中中内 以方で . CUI#~C3U#, DUI#~DUO#
Completing date	Test item: 8 items
Completing date	
完成日期: 2022.10.03	测试项目: 8 项
Test conclusion:	27 Ct 2 114

#### Test conclusion:

检测结论:

The LiFePO4 BATTERY PACK submitted by MUST ENERGY (GUANGDONG) TECHNOLOGY CO.,LTD are tested 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 relevant requirements of the standard.

由美世乐(广东)新能源科技有限公司送检的磷酸铁锂电池组,依据联合国《关于危险货料 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: 2023.04.24

签发日期: 2023 年 4

段江涛

审核 Reviewed by

Tested by

批准 Approved by

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### Description and illustration of the sample:

#### 样品说明及描述:

干叫儿外及油丝			
Test item 测试项目	Sample No. 样品编号	State 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
1.1~1.5 F. VIII 7 ian Su	B03#~B04#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	电池
	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
天湖	B07#~B08#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	电池
T.8	C11#~C20#	at first cycle in fully discharged states; 在第一个循环完全放电;	Cell
K VIII Tian Sa	C21#~C30#	after 25 cycles ending in fully discharged states; 在第二十五个循环完全放电;	电芯

### Description of the sampling procedure:

取样程序的说明:

/

### Description of report revision:

报告修订的说明:

The report data is quoted from TSZ22090212-P01-R01, This sample and original report TSZ22090212-P01-R01 sample is the same sample, The screen printing and trademark are different.

该报告数据引用于报告 TSZ22090212-P01-R01, 此样品和原报告 TSZ22090212-P01-R01 样品为同一样品,丝印、商标不同。

### Remarks:

备注:

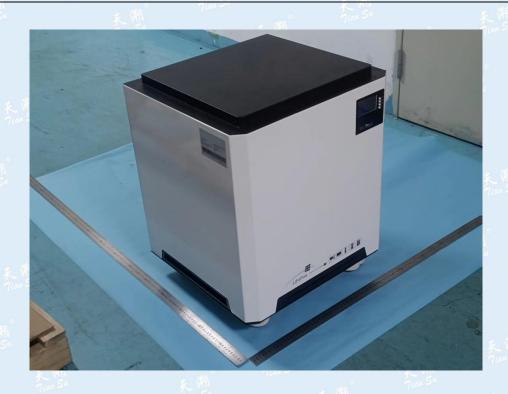
The LiFePO4 BATTERY PACK by MUST ENERGY (GUANGDONG) TECHNOLOGY CO.,LTD are large batteries.

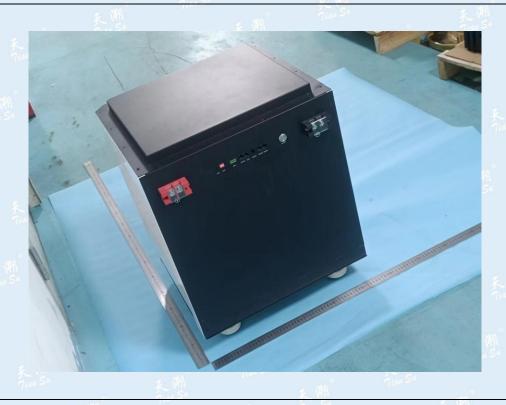
由美世乐(广东)新能源科技有限公司所送的磷酸铁锂电池组是大电池。



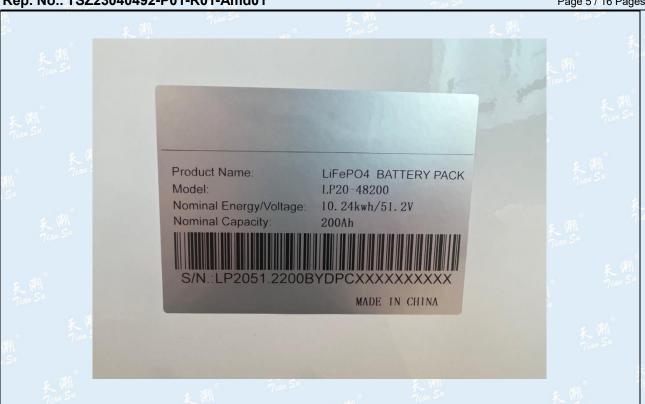
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# Photos of Battery\电池图片





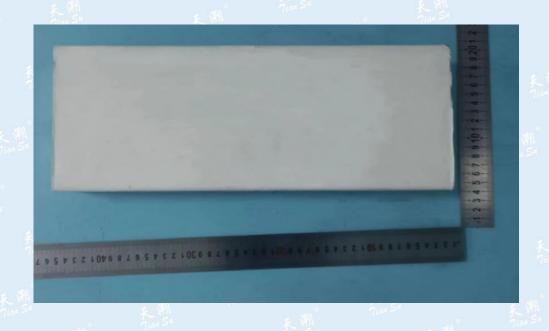
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38.3.4	Procedure/测记	式步骤				天湖	_
天湖	Test 1: Altitud	le simulation/	测试 1:高度模	拟	天徽	Time	
	at ambient tem	nperature (20°	C±5℃).		ôkPa or less for a Pa 的环境中贮存	at least six hour 不少于 6 个小时。	文渊 Tian Su
	Requirement/	示准要求:	£.V	A Su	2 潮	Tian Su	
20.2.4.4	1.Cells and ba 样品质量损	A S	oss limit: ≤0.1%	天湖 Tian Su		<b>天</b> 潮	P P
38.3.4.1	applicable to	test cells and	batteries at ful	l discharged sta	relating to voltagates. 要求不适用于完全	£ W1 7/41/5	
							25 A 161
	3.No leakage,		disassembly, r 排气、无解体、	ia ·	no fire. 着火现象的发生。	天開 Tian Sii	F M Tian S
	3.No leakage,		part of the second	ia ·		天湖 Tian Sil	Tian S Tian S Tian Su
Sample	3.No leakage, 样品(电池) Result	应无漏液、无	·排气、无解体、	ia ·		7 m 5 m	Test result
Sample No. 样品编号	3.No leakage, 样品(电池) Result 测试结果 Before	应无漏液、无	·排气、无解体、	无破裂以及无r Test	着火现象的发生。	天 瀬 7:an Su	Test result 测试结身
No.	3.No leakage, 样品(电池) Result 测试结果 Before 测试	应无漏液、无 e Test ci前 Voltage	Afte Mass	Test 式后 Voltage	着火现象的发生。 Mass loss	Residual OCV	result
No. 样品编号	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 式前 Voltage 开路电压(V)	Aftei 测 Mass 样品质量(kg)	Test 式后 Voltage 开路电压(V)	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#	3.No leakage, 样品(电池) Result 测试结果 Before 测试 Mass 样品质量 (kg) 139.213	P Test 以前 Voltage 开路电压(V) 55.594	#气、无解体、 After 测 Mass 样品质量(kg) 139.213	Test 式后 Voltage 开路电压(V) 55.572	着火现象的发生。 Mass loss 质量损失(%) 0.00	Residual OCV 剩余电压(%) 99.96	result 测试结身 P

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

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38.3.4	Procedure/测	试步骤					
天湖	Test 2: Therr	mal test/测试 2	: 温度测试		天湖.	-71an 280	70
	72℃±2℃, foll ±2℃, The ma procedure is t batteries are t 将电芯和电池 件下贮存不少	owed by storag ximum time int to be repeated to be stored for 在温度为 72℃ 于 6 个小时,两	ge for at least si erval between t until 10 total cy 24 hours at an ±2℃的条件下贮	ix hours at a terest temperatur cles are comple bient temperate 存不少于 6 个 扇最长为 30min	st temperature e e extremes in 30 ete, after which a ture (20℃±5℃). 小时,然后,在这	) minutes, This all test cells and	天湖 7ian Su Jan Su
天湖	Requirement/		Trans"		Jan Sil	<b>美</b> 雅	Р
38.3.4.2	1.Cells and ba 样品质量损		oss limit: ≤0.1%	天神 Tian Su			天湖.
	applicable t	to test cells and	l batteries at ful	l discharged st	relating to volta ates. 要求不适用于完	gian Su	F M 7ian 5a
			o disassembly, r 元排气、无解体、	·	no fire. 着火现象的发生	7:an Su • 2 %	, j
	Result 测试结果	Tian Su	<b>美</b> 蘭	天 M Tian Su	天 70	7ian 5 an Sa	·" 毛潮
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#	139.213	55.572	139.213	55.283	0.00	99.48	Р
B02#	139.220	55.636	139.220	55.386	0.00	99.55	Р
B03#	139.213	55.819	139.213	55.518	0.00	99.46	P
B04#	139.213	55.332	139.213	55.028	0.00	99.45	Р

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

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38.3.4	Procedure/测	试步骤					_
天湖	Test 3: Vibra	tion/测试 3:振	动 Tun Su		天湖.	-7, can = " - 281	-
	distorting the be a sinusoid Hz traversed each of three 将电芯和电池 加至 200Hz,	cells in such a lal wave form win 15 minutes, mutually perpe年固地安装在振	manner as to fa th a logarithmic This cycle shall ndicular mount 表动台的台面上, 到 7Hz 为一个循	ithfully transmit sweep betwee be repeated 12 ng position of t 然后开始振动 环,一个循环标	n 7 Hz and 200 2 times for a total	ne vibration shall Hz and back to 7 l of 3 hours for 形式,以 7Hz 增	天湖 Tian Su ian Su
38.3.4.3 7 WA 7 Lan Su	样品质量打 2.Open circui applicable t 样品试验后 和电芯。 3.No leakage	atteries Mass lo 员失≤0.1%. t voltage not les to test cells and 开路电压应不位 , no venting, no	ss than 90%, Th batteries at ful 氐于试验前开路 disassembly, r	ne requirement I discharged sta 电压的 90%,此 no rupture and r	要求不适用于完全	全放完电的电池	P 天湖 7ian Si Rian Sa
	Result 测试结果	700	夫 洲	Tian Su	天 7ia	洲 "S"	天 (i)
Sample No.	Befor	re Test 试前	6	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#	139.213	55.283	139.213	55.250	0.00	99.94	Р
B02#	139.220	55.386	139.220	55.331	0.00	99.90	Р
			2 VIII		90 9i	VP#	
B03#	139.213	55.518	139.213	55.490	0.00	99.95	Pian

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

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38.3.4	Procedure/测	试步骤					_
天湖	Test 4: Shock	k/测试 4: 冲击	F VIII Tian Su		天湖	Filan 5"	
	to a half-sine smaller) and p subjected to a smaller) and p three shocks three mutually 以稳固的托架	shock of peak a pulse duration of a half-sine of per pulse duration of in the positive of perpendicular 固定住每个电芯 中的较小值)的	acceleration of of 6 millisecond ak acceleration of 11 millisecond lirection follower mounting posits 和电池样品的 如果正弦的加速	150gn (or Accel s, large cells an n of 50gn (or Acc ds. Each cell or ed by three shootions of the cell of 全部配件表面。 穿撞击,脉冲持	eration(gn)= \( \sum_n^n\) and large batteries celeration(gn)= \( \sum_n\) battery shall be cks in the negative or battery for a to \( 对每个电芯或电流续6毫秒.大型	shall be (mass), which is subjected to be direction of tal of 18 shocks. 也以峰值为 150gn 电池和大型电池	夫湖 Tian Si 湖 aur Su
38.3.4.4	组须经受最大 每个电池或电	加速度 <b>50g</b> n (或	え与√mass]中的も [相垂直的电池:	交小值)和脉冲扫	寺续时间 11 毫秒	的半正弦波冲击。 接着在反方向经	Р
	Requirement/ 1.Cells and ba 样品质量损	atteries Mass lo	ss limit: ≤0.1%	71.00 Fu			
	2.Open circuit applicable t 样品试验后 和电芯。 3.No leakage	t voltage not les o test cells and 开路电压应不作 , no venting, no	batteries at ful 氐于试验前开路 disassembly, r	I discharged sta 电压的 90%,此 no rupture and r	要求不适用于完全	全放完电的电池	₹ VAT 7ion Sa 0 1
· · · · · · · · · · · · · · · · · · ·	2.Open circuit applicable t 样品试验后 和电芯。 3.No leakage	t voltage not les o test cells and 开路电压应不作 , no venting, no ) 应无漏液、无	batteries at ful 氐于试验前开路 disassembly, r	I discharged sta 电压的 90%,此 no rupture and r	ates. 要求不适用于完全 no fire.	全放完电的电池	R VIII Tian Su 5 5 7 car
Sample	2.Open circuit applicable t 样品试验后 和电芯。 3.No leakage, 样品(电池 Result/测试华	t voltage not les o test cells and 开路电压应不作 , no venting, no ) 应无漏液、无 <del>手果</del> e Test	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、	I discharged sta 电压的 90%,此 no 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	2.Open circuit applicable t 样品试验后 和电芯。 3.No leakage, 样品(电池 Result/测试结	t voltage not les o test cells and 开路电压应不作 , no venting, no ) 应无漏液、无 <del>手果</del> e Test	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、	I discharged sta 电压的 90%,此 no 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 7/20/5	Test result 测试结果
No.	2.Open circuit applicable t 样品试验后和电芯。 3.No leakage,样品(电池 Result/测试结 Before Mass	t voltage not les o test cells and 开路电压应不作 , no venting, no ) 应无漏液、无 手果 e Test 式前	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、 Afte 则 Mass	I discharged sta 电压的 90%,此 no rupture and r 无破裂以及无 r Test 式后 Voltage	ates. 要求不适用于完全 no fire. 着火现象的发生。 Mass loss	放完电的电池 Residual OCV	result
No. 样品编号	2.Open circuit applicable t 样品试验后和电芯。 3.No leakage,样品(电池 Result/测试结 Beform测试	t voltage not les o test cells and 开路电压应不作 , no venting, no ) 应无漏液、无 <b>是果</b> e Test 式前 Voltage 开路电压(V)	batteries at ful 《于试验前开路 disassembly, r 排气、无解体、 Afte 测 Mass 样品质量(kg)	I discharged sta 电压的 90%,此 no rupture and r 无破裂以及无 r 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#	2.Open circuit applicable t 样品试验后和电芯。 3.No leakage,样品(电池 Result/测试组 Beform Mass 样品质量 (kg) 139.213	t voltage not les o test cells and 开路电压应不作 no venting, no )应无漏液、无 某 e Test 式前 Voltage 开路电压(V) 55.250	batteries at ful 纸于试验前开路 disassembly, r 排气、无解体、 Afte 则 Mass 样品质量(kg) 139.213	I discharged sta 电压的 90%,此 no rupture and r 无破裂以及无 r Test 式后 Voltage 开路电压(V) 55.217	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.

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38.3.4	Procedure/测试步骤	_
天湖	Test 5: External short circuit/测试 5: 外部短路	4
	The cell or battery to be tested shall be temperature stabilized so that its external case temperature reaches $57\%\pm4\%$ and then the cell or battery shall be subjected to a short circuit condition with a total external resistance of less than 0.1 ohm at $57\%\pm4\%$ , This short circuit condition is continued for at least one hour after the cell or battery external case temperature has returned to $57\%\pm4\%$ , the cell or battery must be observed for a further six hour for the test to be concluded.	The second
38.3.4.5	保持试验环境温度稳定在 57℃±4℃,以使电芯或电池样品外表温度达到 57℃±4℃,然后,在此温度下,将其正负极用小于 0.1 欧姆的线路短接,待电芯或电池的外表温度恢复到 57℃±4℃之后再持续 1 小时以上,对电芯或电池必须进一步观察 6 个小时才能下结论。	D
	Requirement/标准要求:  1.Cells and batteries meet this requirement if their external temperature does not exceed 170℃; 电芯或电池的外壳温度应不超过 170℃;  2. No disassembly, no rupture and no fire during the test and within six hours after this test. 试验后 6 小时内无解体、无破裂、无起火。	天湖 Tian Si 天湖 Tian Su
	Result 测试结果	*44
Sample No. 样品编号	Max External Temp 样品表面最高温度(℃)	Test result 测试结果
	AND SALES OF THE S	Р
B01#	58.0 7ta 54	
B01# B02#	58.0 71.05 50.50 71.05 50.50 71.05 50.50	P
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P

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

Rep. No.:	TSZ23040492-P01-R01-Amd01
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38.3.4	Procedure/测试步骤	_
美潮	Test 6: Crush\Impact/	
	测试 6: 挤压(适用)	
	建击(不适用)	2 34
	Crush 挤压	Fian S
	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.	ian Su
	(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.	3 23
	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.	F. M.
	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:	2 M
	(a)作用力达到 13kN±0.78kN;	7 ian Su
	(b)电池芯电压降至少达到 100mV;	295
	(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。	d.
	Impact 7 m 5 m 7 m 5 m 7 m 5 m	£
	撞击	y sau
8.3.4.6	(applicable to cylindrical cells not less than 18mm in diameter)	P
	The sample cell or component cell is to be placed on a flat smooth surface. A 15.8 mm ± 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	夫溯 Tian Su
	kg ± 0.1 kg mass is to be dropped from a height of 61cm ± 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.	M S#
	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.	Pian
	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.	Z MA Tian Su
	(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。	14 54
	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。	X T
	Requirement/标准要求:	4
	1.Cells and component cells meet this requirement if their external temperature does not exceed 170 ℃;	天湖 Tian Su
	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.	444

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	Result 测试结果		
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#	3.271 5 MA	23.3	P- MA
C02#	3.270	23.8 c 7ian 54	Р
C03#	3.254	23.5	₹. P
C04#	3.279	7um 5u 23.6 KM	Р
C05#	3.266	23.1	Р
C06#	3.258	24.2	Р
C07#	3.276	23.1	P <sup>ian Su</sup>
C08#	3.245	23.4	Р
C09#	3.280	24.0	7im P
C10#	3.247 £ WA	23.3 7 cm 5 u	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.

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8.3.4	Procedure/测试步骤	_
天湖	Test 7: Overcharge/测试 7: 过度充电	<b>F</b> A
88.3.4.7 M	When the manufacturer's recommended charge voltage is not more than 18V, the minimu 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过电电压或者是 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	e P 充
	I 倍的/	
	倍的厂家标定最大充电电压。充电电流为厂家推荐的最大充电电流 2 倍。 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。	天 Pian
	Requirements/标准要求: No disassembly and no fire during the test and within seven days after the test.	天湖 Tian Su
cample No.	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。  Result 测试结果  OCV prior to test	Test result
样品编号	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。  Result 测试结果  OCV prior to test 试验前电压 (V)	测试结果
样品编号 B05#	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。  Result 测试结果  OCV prior to test 试验前电压 (V)  55.827	测试结果
样品编号	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。  Result 测试结果  OCV prior to test 试验前电压 (V)	测试结果
样品编号 B05#	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。  Result 测试结果  OCV prior to test 试验前电压 (V)  55.827	测试结果

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38.3.4	Procedure/测试步骤	256	7100 50	天學	_
天 湖 71011 54 7101 54 7101 54 38.3.4.8 7101 54 7101 54	Test 8: Forced discharge/测	试 8: 强制放申	ŧ.	天湖	<b>#</b> 1
	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。				Tian Si
					F M
	Result 測试结果	· · · · · · · · · · · · · · · · · · ·	天徽 7ian Su	7ian 5 " 夫爾 7ian 5 "	Tian Su
Sample No.	OCV prior to test 试验前电压(V)	Test result 测试结果	Sample No. 样品编号	OCV prior to test 试验前电压(V)	Test resul 测试结果
样品编号	风 型 刖 电 压 (V)	加加二八	717		1/1 10/ -11 //-
件而编写 C11#	八亚 N 电压 (V)	P	C21#	2.947	P
	5- YE	ANA C	als. Co.	5 S	8 1
C11#	2.949	P P	C21#	2.947	P
C11#	2.949	P F	C21#	2.947 2.868	P <sub>7im</sub>
C11# C12# C13#	2.949 2.904 2.931	P P	C21# C22# C23#	2.947 2.868 2.859	P P
C11# C12# C13# C14#	2.949 2.904 2.931 2.873	P P	C21# C22# C23# C24#	2.947 2.868 2.859 2.935	P P P P
C11# C12# C13# C14# C15#	2.949 2.904 2.931 2.873 2.874	P P P	C21# C22# C23# C24# C25#	2.947 2.868 2.859 2.935 2.944	P P P
C11# C12# C13# C14# C15# C16#	2.949 2.904 2.931 2.873 2.874 2.897	P P P	C21# C22# C23# C24# C25# C26#	2.947 2.868 2.859 2.935 2.944 2.880	P P P P
C11# C12# C13# C14# C15# C16# C17#	2.949 2.904 2.931 2.873 2.874 2.897 2.917	P P P P P P	C21# C22# C23# C24# C25# C26# C27#	2.947 2.868 2.859 2.935 2.944 2.880 2.929	P P P P

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