

Declaration statement Letter

2015-03-27

MET Laboratories, Inc.
914 West Patapsco Avenue
Baltimore, MD 21230

RE: Declaration statement Letter

To Whom It May Concern:

We hereby declare that model: (4073112C-4000-3.7, manufacture: Donglijuneng technology Co., Ltd) is compatible with original model: (ENONG4073112P4000mAh, manufacture: Shenzhen Huiputuo technology Co., Ltd).

Please contact me if there is any information you may need.

Sincerely,



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Position: CFO

Company Name: RM ACQUISITIONS LLC

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深圳市动力聚能科技有限公司

Shenzhen Donglijuneng Technology Co.,Ltd

File No./文件编码: SPE-TED-1636

Ver./版本: A0

Date/日期: 2015-01-03

Specification For Li-ion Battery

锂离子电池规格书

Model No.

型号:4073112C-4000-3.7

Customer code

客户代码: APK

Prepared/Date 编制/日期	
Checked/Date 审核/日期	
Approved/Date 批准/日期	

Customer's opinion/客户意见:

Customer approval 客户确认	Signature/Date 签字/日期	
	Company name 公司名称	
	Company stamp 公司印章	

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A0	First edition 初版发行	/	2015-01-03



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1 Scope 适用范围

This specification is applied to lithium ion battery supplied by Shenzhen Donglijuneng Technology Co.,Ltd.

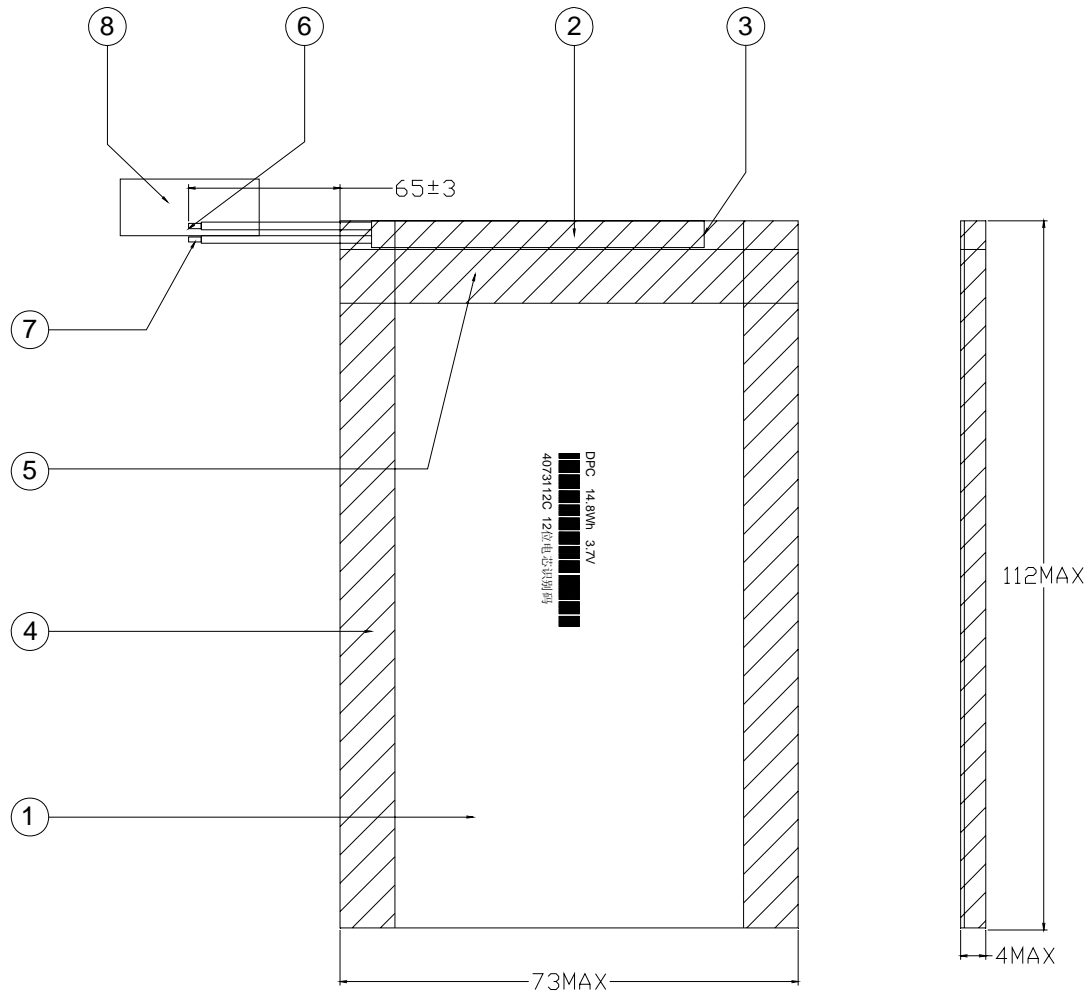
本产品规格书适用于深圳市动力聚能科技有限公司提供的锂离子电池.

2 Fundamental characteristics 基本特性

No.	Item 项目	Criteria 标准		Remark 备注
1	Nominal capacity 标称容量	4000mAh(Min)		Test with standard charging method and standard discharging method at room temperature 室温下采用标准充电方式和标准放电方式测试
2	Nomina voltage 标称电压	3.7V		Ex-factory voltage:3.8~3.95V 出厂电压:3.8~3.95V
3	Internal impedance 内阻	90mΩ(Max)		1.Measured with AC(1KHz) after half charge at room temperature. 2.Half charge:After fully charge with standard charging method,then discharge for 2.5h with standard discharging method. 1.室温下对半充电池用交流法测量(1KHz); 2.半充:采用标准充电方式充满电后,再采用标准放电方式放电 2.5h.
4	Weight 重量	Approx:80g(for reference) 约 80g(供参考)		
5	Upper limit of charging voltage 充电限制电压	4.2V		
6	Discharge cut-off voltage 放电终止电压	3.0V		
7	Standard charging method 标准充电方式	0.2C constant current to 4.2V,and constant voltage to 0.01C cut off 0.2C 恒流充至 4.2V,恒压充至电流下降为 0.01C 停止		Charge time:8h(for reference) 时间 8h(供参考)
8	Rapid charging method 快速充电方式	0.5C constant current to 4.2V,and constant voltage to 0.05C cut off 0.5C 恒流充至 4.2V,恒压充至电流下降为 0.05C 停止		Charge time:4h(for reference) 时间 4h(供参考)
9	Standard discharging method 标准放电方式	0.2C constant current discharge to 3.0V 0.2C 恒流放电至 3.0V		
10	Rapid discharging method 快速放电方式	0.5C constant current discharge to 3.0V 0.5C 恒流放电至 3.0V		
11	Maximum charge current 最大充电电流	3000mA		
12	Maximum discharge current 最大放电电流	3000mA		
13	Operation temperature and relative humidity range 工作温湿度范围	Charge 充电	0~45℃ 60±25%RH	
		Discharge 放电	-20~60℃ 60±25%RH	
14	Storage temperature and relative humidity range for a long time 长期存储温湿度范围	-20~25℃ 60±25%RH		Do not storage exceed 12 months 存储不可超过 12 个月



3 Outline drawing 外形图纸(not in scale 未按比例)



9	锡线	∅0.8mm	-
8	美纹胶	T0.13XW7.0XL15mm	1
7	导线黑色	UL3302AWG24#	1
6	导线红色	UL3302AWG24#	1
5	茶色高温胶	T0.05 x W20 x L73mm	1
4	茶色高温胶	T0.05 x W15 x L112mm	2
3	茶色高温胶	T0.05 x W10 x L55mm	1
2	保护板	DPC0188	1
1	电芯	DPC 4073112C-4000	1
序号	物料名称	规格	数量



4 Protection circuit 保护电路

4.1 Protection circuit electrical characteristics 保护电路电气特性

Item 项目	Symbol 符号	Content 详细内容	Criterion 标准
Over charge Protection 过充保护	VDET1	Over charge detection voltage 过充电检测电压	4.28V±0.025V
	tVDET1	Over charge detection delay time 过充电检测延迟时间	960~1400ms
	VREL1	Over charge release voltage 过充电解除电压	4.08±0.025V
Over discharge protection 过放保护	VDET2	Over discharge detection voltage 过放电检测电压	2.8V±0.05V
	tVDET2	Over discharge detection delay time 过放电检测延迟时间	115~173ms
	VREL2	Over discharge release voltage 过放电解除电压	2.8±0.05V
Over current protection 过流保护	IDP	Over current detection current 过电流保护电流	3.6 ~ 6.5A
	tVDET3	Detection delay time 检测延迟时间	7.2 ~ 11 ms
		Release condition 保护解除条件	Cut load 断开负载
Short protection 短路保护		Detection condition 保护条件	Exterior short circuit 外部电路短路
	TSHORT	Detection delay time 检测延迟时间	220~380us
		Release condition 保护解除条件	Cut short circuit 断开短路电路
Interior resistance 内阻	RDS	Main loop electrify resistance 主回路通态电阻	RDS≤45mΩ
Current consumption 消耗电流	IDD	Current consume in normal operation 工作时电路内部消耗	7.0μA Max

4.2 Main parts list 主要元器件清单

Part name 名称	Specification 规格	Pack type 封装方式	Q.ty 数量	Maker/Remark 厂商/备注
Battery protection IC	S8261-G3M	SOT-23-6	1	精工
Silicon MOSFET	FS8205A	SOT-23-8	2	富晶



5 Performance criteria 性能标准

Unless otherwise specified,all tests stated in this product specification are conduct at below environmental condition.

所有测试应按以下环境条件进行,除非特殊指定外.

Room temperature 室温: 20~25°C

Relative humidity 湿度:60±25%RH

5.1 Electrical performance 电性能

No.	Item 项目	Test method and condition 测试方法及条件	Criteria 标准
1	Cycle life 循环寿命	1.Charge with standard charging method. 2.Rest 5min. 3.Discharge with standard discharging method. 4.Rest 5min. 5.Repeat steps 1~4. 6.When the discharge capacity is less than the 80% initial discharge capacity twice,then stop the test. 1.采用标准充电方式充电; 2.休眠 5min; 3.采用标准放电方式放电; 4.休眠 5min; 5.重复上述步骤 1~4; 6.当放电容量连续 2 次低于初始放电容量的 80%时,测试即可停止.	Cycle times no less than 300 times 循环次数≥300 次
2	Charge retention 荷电保持	1.After fully charge with standard charging method,lay aside for 28d at below environmental condition: Room temperature:20~25°C Relative humidity:60±25%RH 2.Test the discharge time with standard discharging method at room temperature. 1.采用标准充电方式充满电,放置 28 天,环境条件如下: 室温:20~25°C 湿度:60±25%RH 2.在室温下采用标准放电方式放电,测试放电时间.	Discharge time no shorter than 4.25h 放电时间≥4.25h
3	High temperature performance 高温性能	1.After fully charge with standard charging method,standby for 1h. 2.Put the batteries into a box with temperature of 55±2°C for 2h,and then discharge with standard discharging method. 3.After this experiment ended,get out the battery and put it in room temperature environment for 2h. 1.采用标准充电方式充满电后静置 1h; 2.将电池放入 55±2°C 的箱内 2h,然后采用标放电方式放电; 3.试验结束后将电池取出放在室温环境中 2h.	Discharge time no shorter than 4.25h,no clear damage or leakage of the battery's out looking. 放电时间≥4.25h,电池外观无明显损坏,无泄露..
4	Low temperature performance 低温性能	1.After fully charge with standard charging method,standby for 1h. 2.Put the batteries into a box with temperature of -20±2°C for 16~20h,and then discharge with standard discharging method. 3.After this experiment ended,get out the battery and put it in room temperature environment for 2h. 1.采用标准充电方式充满电后静置 1h; 2.将电池放入 -20±2°C 的箱内 2h,然后采用标准放电方式放电; 3.试验结束后将电池取出放在室温环境中 2h.	Discharge time no shorter than 3h,no clear damage or leakage of the battery's out looking. 放电时间≥3h,电池外观无明显损坏,无泄露.



5.2 Mechanical and environmental performance 机械及环境性能

No.	Item 项目	Test method and condition 测试方法及条件	Criteria 标准
1	Vibration test 振动测试	<p>1.Test the initial capacity with standard charging and discharging method at room temperature.</p> <p>2.After fully charge with standard charging method,standby for 1h,and then measure open-circuit voltage and impedance.</p> <p>3.The battery is firmly secured to the platform of the vibration machine without distorting the battery in such a manner as to faithfully transmit the vibration.A battery is to be subjected to simple harmonic motion with an amplitude of 0.8 mm(1.6mm total maximum excursion).</p> <p>4.The frequency is to be varied at the rate of 1Hz per minute between 10~55Hz,and return in 90~100min.The battery is to be tested in three mutually perpendicular directions.</p> <p>5.After standby for 1h,measure open-circuit voltage and impedance,and then test the residual capacity with standard discharging method at room temperature.The residual capacity is the discharge capacity after fully charge with standard charging method.</p> <p>1.采用标准充放电方式测试室温下的初始容量;</p> <p>2.采用标准充电方式充满电后放置 1h,测量开路电压和内阻;</p> <p>3.将电池稳固地有保护地固定在振动平台上,不要扭曲电池,以便振动能很好的传送;每个电池经受简单的调谐振动,振幅为 0.8mm(最大双振幅 1.6mm);</p> <p>4.振动的频率在 10~55Hz 范围内以 1Hz/min 的速率变化,在 90~100min 内恢复回来,电池沿 3 个互相垂直的方向振动;</p> <p>5.静置 1h 后测量开路电压和内阻,然后采用标准放电方式测试常温下的剩余容量,剩余容量是指采用标准充电方式满充之后的放电容量.</p>	<p>1.Batteries shall be no leakage,no smoke,no fire and no explosion.</p> <p>2.The open-circuit voltage after testing is not less than 90% of the initial open-circuit voltage.</p> <p>3.The residual capacity is not less than 80% of the initial capacity.</p> <p>4.The impedance increase is not over 50% of the initial impedance.</p> <p>1.电池无泄漏,无冒烟,无起火,无爆炸;</p> <p>2.开路电压 ≥ 初始开路电压的 90%;</p> <p>3.剩余容量 ≥ 初始容量的 80%;</p> <p>4.内阻增加 ≤ 初始内阻的 50%.</p>
2	Drop test 跌落测试	<p>1.Test the initial capacity with standard charging and discharging method at room temperature.</p> <p>2.After fully charge with standard charging method,standby for 1h,and then measure impedance.</p> <p>3.The batteries were dropped from a height of 1m to a concrete surface.Each battery is to be dropped once in the positive and negative directions of three mutually perpendicular mounting positions for a total of 6 times.</p> <p>4.After standby for 1h,measure impedance,and then test the residual capacity with standard discharging method at room temperature.The residual capacity is the discharge capacity after fully charge with standard charging method.</p> <p>1.采用标准充放电方式测试室温下的初始容量;</p> <p>2.采用标准充电方式充满电后静置 1h,测量内阻;</p> <p>3.电池从 1 米的高度自由跌落到水泥地面上,每个电池沿着三个互相垂直轴的正负方向跌落 1 次,总共跌 6 次;</p> <p>4.静置 1h 后测量内阻,然后采用标准放电方式测试常温下的剩余容量,剩余容量是指采用标准充电方式满充之后的放电容量.</p>	<p>1.Batteries shall be no leakage,no smoke,no fire and no explosion.</p> <p>2.The residual capacity is not less than 90% of the initial capacity.</p> <p>3.The impedance increase is not over 50% of the initial impedance.</p> <p>1.电池无泄漏,无冒烟,无起火,无爆炸;</p> <p>2.剩余容量 ≥ 初始容量的 90%;</p> <p>3.内阻增加 ≤ 初始内阻的 50%.</p>
3	Altitude simulation test 高空模拟测试	<p>1.After fully charge with standard charging method,standby for 1h,and then measure open-circuit voltage.</p> <p>2.The batteries shall be stored at a pressure of 11.6KPa or less for at least 6h at ambient temperature(room temperature).</p> <p>3.Get the batteries out and measure open-circuit voltage after 6h.</p> <p>1.采用标准充电方式充满电后静置 1h,测量开路电压;</p> <p>2.在周围为室温的情况下,将电池放在大气压为 11.6KPa 或更低的真空环境中存储至少 6h;</p> <p>3.6h 后将电池取出并测量开路电压.</p>	<p>Batteries shall be no leakage,no smoke,no fire,and no explosion,and the open-circuit voltage is not less than 90% of the initial open-circuit voltage.</p> <p>电池无泄漏,无冒烟,无起火,无爆炸,开路电压 ≥ 初始开路电压的 90%.</p>



5.3 Safety performance 安全性能

No.	Item 项目	Test method and condition 测试方法及条件	Criteria 标准
1	Crush test 挤压测试	<p>1.After fully charge with standard charging method,standby for 1h.</p> <p>2.A battery is to be crushed between two flat surfaces,the force for the crushing is to be applied by a hydraulic ram with a 32mm diameter piston,the crushing is to be continued until a pressure reading of 17.2MPa is reached on the hydraulic ram,applied force of 13KN,once the maximum pressure has been obtained it is to be released.</p> <p>3.A battery is to be crushed with its longitudinal axis parallel to the flat surfaces of the crushing apparatus,and to be rotated 90 degrees around its longitudinal axis so that both the wide and narrow sides will be subjected to the crushing force,each battery is to be subjected to a crushing force in only one direction,separate batteries are to be used for each test.</p> <p>1.采用标准充电方式充满电后静置 1h;</p> <p>2.电池在两个平面间承受挤压,挤压的压力由一个直径为 32mm 活塞的液压油缸提供,挤压将一直持续到液压油缸的压强读数达到 17.2MPa,此时的压力为 13KN,一旦这个最大压力达到,马上卸压;</p> <p>3.电池受挤压时其长轴应平行于挤压装置的平面,并沿长轴方向旋转 90 度,以使宽侧面和窄侧面均承受挤压,每个电池只在一个方向上承受挤压,每次挤压使用不同的电池.</p>	<p>Batteries shall be no smoke,no fire,and no explosion.</p> <p>电池无冒烟,无起火,无爆炸.</p>
2	Impact test 撞击测试	<p>1.After fully charge with standard charging method,standby for 1h.</p> <p>2.A battery is to be placed on a flat surface,a 15.8mm diameter bar is to be placed across the center of the battery,a 9.1kg mass hammer is to be dropped from a height of 61±2.5cm onto the battery.</p> <p>3.The battery is to be impacted with its longitudinal axis parallel to the flat surface and perpendicular to the longitudinal axis of the 15.8mm diameter curved surface lying across the center of the test battery,and to be rotated 90 degrees around its longitudinal axis so that both the wide and narrow sides will be subjected to the impact,each battery is to be subjected to only a single impact,separate batteries are to be used for each impact.</p> <p>1.采用标准充电方式充满电后静置 1h;</p> <p>2.把电池放在一平面上,将一直径 15.8mm 的棒横放在电池的中心,让一重 9.1Kg 的铁锤从 61±2.5cm 的高度跌落到电池上;</p> <p>3.电池受撞击时,其长轴应平行于撞击平面并且与放在电池中心的 15.8mm 直径的棒的曲面垂直,并沿长轴方向旋转 90 度,以使宽侧面和窄侧面均承受撞击,每个电池只承受一次撞击,每次撞击使用不同的电池.</p>	<p>Batteries shall be no smoke,no fire,and no explosion.</p> <p>电池无冒烟,无起火,无爆炸.</p>
3	Heating test 热冲击测试	<p>1.After fully charge with standard charging method,standby for 1h.</p> <p>2.Put the battery into an oven at room temperature,and increase the temperature at a rating of 5±2℃/min to 130±2℃.After the oven temperature reached to 130℃±2℃,maintain for 10min at that temperature before the test is discontinued.</p> <p>1.采用标准充电方式充满电后静置 1h;</p> <p>2.室温下将电池放于烤箱中,烤箱以 5±2℃/min 的速率升温至 130±2℃,当烤箱内温度达到 130±2℃后,保持此温度 10min 后停止测试.</p>	<p>Batteries shall be no smoke,no fire,and no explosion.</p> <p>电池无冒烟,无起火,无爆炸.</p>



5.4 Storage performance 存储性能

No.	Item 项目	Test method and condition 测试方法及条件	Criteria 标准
1	Room temperature Storage 常温存储	<p>1.Test the initial capacity with standard charging and discharging method at room temperature.</p> <p>2.Prepare three groups of batteries,the charge status are respectively fully charge, half charge and fully discharge. Fully charge:With standard charging method. Half charge:After fully charge with standard charging method,then discharge for 2.5h with standard discharging method. Fully discharge:With standard discharging method.</p> <p>3.After measured impedance,the batteries shall be stored for 30d at below environmental condition: Room temperature:20~25°C Relative humidity:60±25%RH</p> <p>4.After stated storage time,measure impedance,and then test the residual capacity with standard discharging method at room temperature.The residual capacity is the discharge capacity after fully charge with standard charging method.</p> <p>1.采用标准充放电方式测试室温下的初始容量; 2.准备三组电池,充电状态分别是满充,半充和完全放电; 满充:采用标准充电方式充满电; 半充:采用标准充电方式充满电后,再采用标准放电方式放电 2.5h; 完全放电:采用标准放电方式放完电; 3.测量内阻后,电池存储 30 天,环境条件如下: 室温:20~25°C 湿度:60±25%RH 4.存储时间到后测量内阻,然后采用标准放电方式测试常温下的剩余容量,剩余容量是指采用标准充电方式满充之后的放电容量.</p>	<p>The residual capacity: Fully charge:no less than 90% of the initial capacity. Half charge:no less than 95% of the initial capacity. Fully discharge:no less than 90% of the initial capacity. The impedance increase is not over 25% of the initial impedance. 试验后剩余容量: 满充:≥初始容量的 90%; 半充:≥初始容量的 95%; 完全放电:≥初始容量的 90%; 试验后的内阻增加≤初始内阻的 25%</p>
2	High temperature Storage 高温存储	<p>1.Test the initial capacity with standard charging and discharging method at room temperature.</p> <p>2.After fully charge with standard charging method,standby for 1h,and then measure impedance and thickness.</p> <p>3.Put the batteries into a box with temperature of 60±2°C,then record the start time and use thermometer to monitor the range of actual temperature during test.</p> <p>4.Measure thickness after 7d,then get the batteries out from the box and standby for 1h at room temperature.</p> <p>5.Measure impedance,and then test the residual capacity with standard discharging method at room temperature.The residual capacity is the discharge capacity after fully charge with standard charging method.</p> <p>1.采用标准充放电方式测试室温下的初始容量; 2.采用标准充电方式充满电后静置 1h,测量内阻和厚度; 3.将电池放入 60±2°C 的箱内,记录开始时间,在测试过程中用温度计监测箱内实际温度; 4.7 天后在高温箱中测量电池厚度,然后将其取出在常温环境下静置 1h; 5.测量内阻,然后采用标准放电方式测试常温下的剩余容量,剩余容量是指采用标准充电方式满充之后的放电容量.</p>	<p>1.The residual capacity is not less than 85% of the initial capacity. 2.The thickness increase is not over 10% of the initial thickness. 3.The impedance increase is not over 25% of the initial impedance. 1.剩余容量≥初始容量的 85%; 2.厚度增加≤初始厚度的 10%; 3.内阻增加≤初始内阻的 25%.</p>

6 Shipment 运输

The battery should be packed in cartons under the condition of half capacity 50~80% for shipment. The violent vibration, impaction or squeezing should be avoided in the transport process; neither is exposed in the sunlight nor rain. The batteries should be shipped by normal transportation such as by road, by train, by ocean or by air.

电池应在 50~80%充电状态下包装成箱进行运输,在运输过程中应防止剧烈振动、冲击或挤压,防止日晒雨淋,适用于汽车、火车、轮船、飞机等普通运输工具.

7 Storage 存储

The batteries should be stored in the clean and dry ventilation room at room temperature, and keep out of the heat and avoid touching corrosion elements. During storage, the batteries should be charged every 6 months, and the battery which with protect circuit should be charged every 3 months. The battery storage period is 12 months when into the warehouse. The expired batteries must have a thorough check.

电池应当存放在干燥通风的室内,保持室温并远离热源,避免与腐蚀性物质接触.存储期间电池每 6 个月充一次电,带保护板电池每 3 个月充一次电.电池存储期限为 12 个月,超期存储的电池须进行全检.



8 Handling instructions 使用说明

8.1 Consideration of strength of film package 包装膜注意事项

1) Soft aluminum foil 铝箔软包装膜

Easily damaged by sharp edge parts such as nail and needle, so don't strike by those sharp parts.

铝箔软包装比较容易被锐利部件刺破,如钉子、针,不要用这些锐利的部件刻划电池。

2) Sealed edge may be damaged by heat above 100°C, bend or fold sealed edge.

封边被加热到 100°C 以上以及弯折封边都容易使封边受损。

8.2 Forbid mechanical shock 禁止机械撞击

Polymer lithium ion battery has less mechanical endurance than metal-can-cased lithium ion battery.

Falling, hitting, bending, etc., may cause degradation of polymer lithium ion battery characteristics.

聚合物电池比金属外壳电池的机械耐久性更小。

跌落、碰撞、弯曲等等都可能会降低聚合物电池的性能。

8.3 Forbid short-circuit battery 禁止电池短路

Do not touch the plus and minus contacts with metals. Do not put the battery with metal element together in either storage or movement. If the battery is short-circuit, it carries magnified current, which will cause damage and make the battery heat, smoke, distort or burning. An appropriate protection circuit should be employed to protect accidental short circuit of the battery pack.

不要将电池的正负极用金属连接,也不要将电池与金属片放在一起存储和移动。如果电池被短路,将会有超大电流流过,将会损坏电池,造成电池发热、冒烟、变形或燃烧。选用一个适当的保护电路可以在意外短路时保护电池。

8.4 Notice for designing battery pack 电池外壳设计注意事项

1) Pack toughness 外壳坚韧度

Battery pack should have sufficient strength and the battery inside should be protected from mechanical shocks.

电池外壳应该有足够的机械强度使电池免受机械撞击。

2) Battery fixing 电池固定

The battery should be fixed to the battery pack by its large surface area.

No battery movement in the battery pack should be allowed.

电池最大面积的一面应该固定在外壳上,安装后电池不能有松动。

3) Inside design 外壳内部设计

Battery pack should be designed that shear force are not applied to the tabs.

No sharp edge components should be insides the pack containing the battery.

外壳设计应使极耳不受外力;

外壳内安装电池的部位不应有锋锐边。

8.5 Consultation 咨询

If the battery is used on special instruments, please contact with your manufacturer for how to get the best performance, at least consult its maximum current, high temperature performance and special application.

如果将电池用于特殊设备,请与供应商商讨保护功能的完善性。至少应咨询电池的最大电流、高温性能及特殊应用问题。

9 Cautions 注意事项

9.1 To avoid use the battery near the heat or in the sunlight 避免在热源附近使用电池

Do not use the battery near the heat or in the sunlight, and over heating will cause the battery internal short circuit and make it heat, smoke, distort or burning.

不要在热源附近或阳光直射的环境中使用电池,过热将会导致电池内部短路,使电池发热、冒烟、变形或燃烧。

9.2 Forbid bathing the battery 禁止弄湿电池

Do not dampen the battery, or even immerse it in the water, which will cause abnormal chemical reactions, which will lead to heating, smoking, distortion or burning.

不要弄湿电池,更不能将电池投入水中,否则会造成电池发生不正常的化学反应,电池有可能发热、冒烟、变形或燃烧。

9.3 Forbid damage battery 禁止破坏电池

Do not allow damage the battery with the metals gouged, forged or dropped etc., otherwise, it will cause over-heated, distort, smoke or burning, even in danger.

禁止用金属凿入电池、锤打或摔打电池或其他方法破坏电池,否则会造成电池发热、冒烟、变形或燃烧,甚至会发生危险。



9.4 Danger in using non-indicated charger 使用非专用充电器给电池充电,会发生危险

Charging in abnormal condition, the battery will cause internal protection circuit and its function lost or abnormal chemical reactions, which will lead to heating, smoking, distortion or burning.

在非正常的条件下充电会造成电池内部保护电路功能丧失和发生不正常的化学反应,电池有可能发热、冒烟、变形或燃烧.

9.5 Do not insert the battery onto the charger for a long time If charging beyond the normal time, the battery is still in the charger, please stop charging. The abnormal charging will cause battery over-heated, distort, smoke or burning.

如果超过正常充电时间很长时间充电器仍在充电,应停止充电,不正常的充电有可能会使电池发热、冒烟变形或燃烧.

9.6 Electro Static-free 防静电

There is a protective circuit inside the battery to prevent contingency. Do not use the battery in the electrostatic circumstances (above 1000V), for it is easily destroyed the circuit board so that the battery doses not work and causes over-heated, distort, smoke or burning.

电池中装有保护电路以避免各种意外情况发生.不要在产生静电的场所使用电池,因为静电(1000V 以上)容易损坏保护板,而导致电池工作不正常,发热、变形、冒烟或起火燃烧.

9.7 Do not put into microwave stove or any other pressure apparatus. Take the battery away from the instrument or the charger if it is instant heated or leak-out (or odors) and depose it. The bad battery will causes over-heated, smoke or burning.

不可置于微波炉或其他压力容器中,瞬间加热或结构漏液(或有异味),应让电池离开设备或充电器弃用.使用不正常的电池会发热、冒烟、变形或燃烧.

9.8 Do not touch the leak-out battery 不要直接触及漏液电池

The leak-out electrolyte will cause the skin uncomfortable. If it drops into eyes, do not rob the eyes but wash in time, and go to hospital for treatment.

渗漏的电解液会造成皮肤不适,万一电解液进入眼睛,尽快用清水冲洗,不可揉眼,并迅速送医院处理.

9.9 Children Use 儿童使用

When Children use the battery, they should be under their parents' instructions and superintend in use.

儿童使用电池前,应受父母指导,并在使用中受监督是否正确.

10 Environment protection 环保

This product accord with RoHS requirement.

此产品符合 RoHS 环保要求.

11 Warranty period 保质期

The period of warranty is 12 months from the date of shipment. We guarantee to give a replacement in case of batteries with defects proven due to manufacturing process instead of the customer abuse and misuse.

保质期为自出厂之日起 12 个月.如果电池缺陷是在制造过程中形成而不是由于用户滥用及错误使用造成的,本公司负责退换电池.

12 Note 注释

All the above are the agreed the battery descriptions and test regulation between Purchaser and Vendor. It can be carried out if there is no any new written agreement or modification notice occurred.

以上所述,可以作为供需双方对于电池产品性能和检验规则的约定框架.如果没有新的书面约定或更改通知,即可按此执行.