



**LIYUAN BATTERY TECHNOLOGY(Yichun)CO.,LTD**

Address: Liyuan Battery Technology Industrial Park, No.166 Food Avenue, Shanggao County, Yichun City, Jiangxi Province

# 产品规格书

## Product Specification

**Product Name/产品名称:** Ni-MH RECHARGEABLE BATTERY

---

**Model/产品型号:** 44.6AAAJ1100mAh

---

**Product number/料号:** 50-1-10-0-45-22

---

**Prepared By/制作:** Xiang Wenbin

---

**Checked By/审核:** Zhong Miaoxin

---

**Approved By/批准:** Ma Xujun

---

**Date/日期:** 2023-04-07

---



变更记录

No. 序号	Date 日期	Edition 版次	Change content/变更内容
1	2023-04-07	A0	New issue/新版发行

**1. SCOPE /说明**

本说明书用于本书中涉及的力源公司的镍氢电池产品。

This specification is applied to the reference Liyuan battery in this Specification and manufactured by .

**2. BATTERY MODEL / 电池型号:**

44.6AAAJ1100mAh 1.20V

**3. EXTERNAL APPEARANCE/外观**

The cell / battery shall be free from cracks, scars, breakage, rust, discoloration, leakage and deformation.

电池应无裂痕、划迹、灰尘、变色、漏液及变形等等。

**4. NOMINAL SPECIFICATION 电池参数**

Item/项目	Unit/单位	Specification/指标	Conditions/条件
Nominal Voltage/标称电压	V	1.2	
Nominal Capacity/标称容量	mAh	1100	Standard charge/discharge 标准充放电:
Standard charge/标准充电	mA	110 (0.1C)	Ta=20±5°C
	Hour	16	
Quick Charge/快充	mA	220 (0.2C)	Ta=0-40°C
	Hour	7.0	
Rapid Charge/急充	mA	550 (0.5C)	Cut-off condition: -ΔV=5mV/cell dT/dt=0.8~1.0°C/min
	Hour	2.4	
Trickle charge/涓流充电	mA	0.02C-0.05C	Ta=0-40°C
Standard discharge 标准放电	mA	220 (0.2C)	Ta=0-40°C Humidity: 65±20% cell cutoff: 1.0V/cell
Storage temperature 存储温度	°C	-20°C~30 within 1 year -20°C~40 within 6 month -20°C~50 within 1 month -20°C~55 within 1 week	Relative humidity: 65±20%
Weight/重量	g	Approx13.0	

## 5. ELECTRICAL CHARACTERISTICS /电性能

Unless otherwise stated, tests should be done within one month of delivery under the following conditions: /除特别申明外, 应在发货后一个月内按以下条件测试:

Ambient Temperature/环境温度:  $20 \pm 5^{\circ}\text{C}$       Relative Humidity/相对湿度:  $65 \pm 20\%RH$

Notes/注: Standard Charge/Discharge Condition/标准充/放电条件

Charge/充电:  $110\text{mA} (0.1C) \times 16 \text{ hrs}$

Discharge/放电:  $220\text{mA} (0.2C)$  to  $1.0V$ / Pack

检测项目	单位	标准	条件	备注
5.1 Open circuit voltage 开路电压	V	$\geq 1.25$	Within 1 hr after standard charge/标准充电后搁置 1 小时	
5.2 Internal impedance 内阻	m $\Omega$	$\leq 45$	Within 1 hr after standard charge/标准充电后搁置 1 小时	
5.3 Discharge 放电 (0.2C)	min	$\geq 285$	Standard Charge , 1hr rest before discharge 标准充电后搁置 1 小时再放电	Allow to 3 cycle 允许循环三次
5.4 Discharge 放电 (0.5C)	min	$\geq 105$	Standard Charge , 1hr rest before discharge 标准充电后搁置 1 小时再放电	Allow to 3 cycle 允许循环三次
5.5 High Rate Discharge 高倍率放电 (1C)	min	$\geq 50$	Standard Charge , 1hr rest before discharge 标准充电后搁置 1 小时再放电	Allow to 3 cycle 允许循环三次
5.6 Overcharge/过充	N/A	See note	0.1C charge for 48 hrs 0.1 C 充 48 小时	No leakage nor Deformation 无漏液或变形
5.7 Charge retention 1 荷电保持能力1	mAh	$\geq 660$ (60%)	Standard charge Storage: 28 days at Ambient Temperature or 7 days at $45^{\circ}\text{C}$ Standard discharge 标准充电, 环境温度下贮存 28 天或 $45^{\circ}\text{C}$ 贮存 7 天, 标准放电	

<p>5.8 IEC Cycles Life Test IEC循环寿命测试</p>	Cycles	≥300	IEC 61951-2 (2017) /7.5.1.2	(see note 1) 见备注 1
<p>5.9 Over-charge 过充</p>	N/A	See note	<p>Charge at 0.1C for 48 hours, standard discharge within 1hour. 电池以 0.1C 充电 48 小时, 1 小时内标准放电</p>	<p>No leakage, No eformation 不漏液, 不变 形</p>
<p>5.10 Forced discharge 强制放电</p>	N/A	See note	<p>1、Ambient temperature (20±5℃) 2、Discharge the battery to 1.0V at 0.5C 3、Discharge the battery for 10 minutes at 0.5C continuously 1、20±5℃环境下; 2、以0.5C电流放电到终止电 压1.0V/cell; 3、再用0.5C电流强制放电, 持 续10分钟。</p>	<p>No fire No explosion 不起火, 不爆炸</p>
<p>5.11 External Short circuit 外短路</p>	N/A	IEC62133 (2017) 7.2.2	<p>After standard charge, short circuit the cell 1hour at 20+/-5℃. (The resistance of the inter connecting circuitry shall not exceed 0.1Ω). 标准充电后, 在 20+/-5℃下短路1小时 (连接 内阻不超过 0.1 欧姆)。</p>	

<p>5.12 Vibration 振动测试</p>	<p>N/A</p>	<p>IEC62133 (2017) 7.2.2</p>	<p>IEC62133 (2017) 7.2.2 See Remark 2</p>	<p>No leakage, No fire , No explosion 不漏液，不起 火，不爆炸</p>
<p>5.13 Free fall 跌 落</p>	<p>N/A</p>	<p>IEC62133 (2017) 7.3.3 b</p>	<p>Each fully charged cell or battery is dropped three times from a height of 1 m onto a concrete floor. The cells or batteries are dropped so as to obtain impacts in random orientations. After the test, the sample shall be put on rest for a minimum of 1 h and then a visual inspection shall be performed  充满电的电池从 1m 的高度随机自由跌落到水泥地板，测试三次，测试结束后，电池应放置至少 1 小时，然后进行目视检查。</p>	<p>No fire, No explosion. 不起火、不爆炸</p>

**Notes/备注 :**

1、Approximate charge time from discharged rate, for reference only IEC 61951-2 (2017) 7.5.1.2

**Cycle Life Test**

充放电时间仅供参考，

IEC 61951-2 (2017) /7.5.1.2 循环寿命测试

Cycle No. 循环次数	Charge 充电	Rest 搁置	Discharge 放电
1	0.1C, 16h	None/无	0.25 C, 2h 20min
2—48	0.25 C, 3h 10min	None/无	0.25 C, 2h 20min
49	0.25 C, 3h 10min	None/无	0.25 C to 1.0V/cell
50	0.1 C, 16h	1h-4h	0.2 C to 1.0V/cell

Cycle 1 to 50 shall be repeated until the discharges duration on any 50th cycle becomes less than 3hrs/循环至任一第 50 次放电时间不足 3 小时为止。

2. Vibration 振动测试:IEC62133 (2017) 7.2.2

## 6. ENVIRONMENTAL PROTECTION REQUIREMENT 环保要求

6.1 The battery pack would be installed and built into the electrical device, so it shouldn't be regarded as outeral and touchable part. That's to say, the battery pack isn't suitable to the environmental regulations for touchable parts.

电池组为用电器产品整机内置的非外部人体可接触部件，不适用于仅针对整机外部可接触部件进行管控的环保法规。

6.2 It is hereby certified by , Inc. that there is neither ROHS (EU Directive 2002/95/EC, 2011/65/EU, 2015/863) restricted substance nor such use, for materials to be used for unit parts, for packing/ packaging materials, and for additives and the like in the manufacturing processes.

我司承诺不使用 ROHS 指令(EU Directive 2002/95/EC, 2011/65/EU, 2015/863)的限制物质，包括原材料、添加剂、单元配件、包装/包装材料、制程材料等。

6.3 Battery Cells restricted substance conform to the requirements of the Battery Directive (EU Directive 2006/66/EC, 2013/56/EU)

电芯限制物质符合电池指令内容 (EU Directive 2006/66/EC, 2013/56/EU) 。

6.4 Is not responsible for the collection and recycling of the waste battery as required in Battery Directive (EU Directive 2006/66/EC, 2013/56/EU)

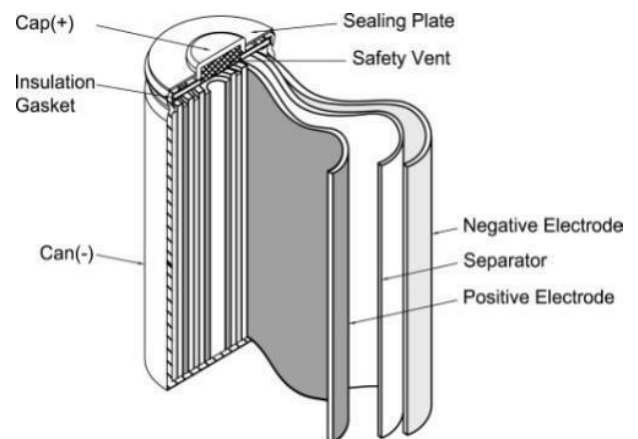
对于电池指令中的处理与回收条款不在义务范围。

### 6.5 Battery interior constitution 电池内部构造图

Never disassemble. Doing so may cause an internal or external short circuit or result in exposed material of battery reacting chemically with the air. It may also cause heat generation, explosion and fire. Also, this is dangerous as it may cause splashing of alkaline fluid.

禁止拆开电池。拆卸电池会引起短路，暴露的电池成分在空气中发生化学反应，会导致发热、爆炸、

着火，还会造成电池碱液的飞溅，非常危险！



6.6 Cell materials and components 电芯材料中的物质 (IMDS 标识符 446786133)

N O	Material name	物质名称	CAS No.	Proportion比重 (从 - 到) [%]
1	Nickel hydroxide	氢氧化镍	12054-48-7	15 - 22
2	Iron	铁	7439-89-6	16 - 20
3	Nickel	镍	7440-02-0	30 - 40
4	Manganese	锰	7439-96-5	0.3 - 1.5
5	Lanthanum	镧	7439-91-0	1.7 - 4.5
6	Cobalt	钴	7440-48-4	1.5 - 2.5
7	Potassium-hydroxide	氢氧化钾	1310-58-3	1 - 2
8	Polyethylene	聚乙烯	9002-88-4	0 - 0.6
9	Cerium	铈	7440-45-1	0.29 - 0.9
10	Neodymium	钕	7440-00-8	0 - 1
11	Aluminium (metal)	铝	7429-90-5	0 - 1
12	Sodium-hydroxide	氢氧化钠	1310-73-2	1 - 2
13	Lithium-hydroxide	氢氧化锂	1310-65-2	0.1 - 0.5
14	PTFE	聚四氟乙烯	9002-84-0	0 - 0.1
15	CMC	羧甲基纤维素 钠	9004-32-4	0 - 0.1
16	Polypropylene	聚丙烯	9003-07-0	1 - 3
17	SBR	丁苯橡胶	9003-55-	0.1 - 0.5
18	Cobalt hydroxide	氢氧化钴	21041-93-0	0.5 - 2
19	Zinc-hydroxide	氢氧化锌	20427-58-1	0 - 0.1
20	Water	水	7732-18-5	0.15 - 0.23

## 7. TRANSPORT 运输

Mode of transport: air, sea and road 运输方式: 空运、海运、公路

Transport hazard class(es) /运输危险等级	
• ADR/RID/AND, IATA	Not applicable
• Class	-
• Label	-
• IMDG	
• Class	9 miscellaneous dangerous and articles.
• Label	substances 9
Packing group/包装组别	
• ADR/RID/AND, IMDG	-
• IATA	Not applicable
Environmental hazards/危害环境	Not applicable
Special precautions for user/用户特别预防措施:	Not applicable
• Danger code (Kemler):	F-A, S-I A
• EMS Number:	SWI Protected from sources of heat.
• Stowage Category	
• Stowage Code	
Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable

Transport information: Nickel-metal hydride Battery is exempt from dangerous goods. It is considered non-dangerous goods by the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) DGR 63th IATA Special Provisions A199, International Maritime Dangerous Goods Regulations (IMDG) (39-18), IMDG Special Provisions 963, or the 《Recommendations on the Transport of Dangerous Goods Model Regulations》 (22th).  
 运输信息: 该金属氢化物镍电池不作为危险材料或危害货品运输。参照 ICAO 国际民用航空组织, IATA (63th) 国际航空运输协会, IATA 特殊规定 A199, IMDG 《国际海运危险货物规则》 (39-18) IMDG 特别规定 963, 或《联合国危险货物运输的建议书规章范本》 (22th)。

S.P. A199 The UN number UN 3496 is only applicable in sea transport. Nickel-metal hydride batteries or nickel-metal hydride battery-compounded devices, equipment or vehicles having the potential of a dangerous evolution of heat are not subject to these Regulations provided they are prepared for transport so as to prevent:

S.P. A199 UN 编号为 UN 3496 的条目仅适用于海上运输。具有潜在放热危险性的镍氢电池或镍氢电池驱动的装置、设备或者交通工具不受本规则的限制, 这些规则是为运输做准备, 所以要尽量避免:

(a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals);

(a) 短路 (例如, 在使用电池的情况下, 通过显示终端的有效绝缘; 或者, 在使用设备的情况下, 通过电池的断开和保护显示终端);

(b) unintentional activation.

The words “Not Restricted” and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued.



(b) 意外启动

当填制航空货运单时，“不受限制”字样和特殊规定编号必须包含在按 8.2.6 的要求的航空货运单中物质的描述中。Separate batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support 电池相互隔开并防止短路、泄露，并装在结实的容器内运输。

Note: A total quantity less than 100kg gross mass in a cargo transport unit. (By sea).

备注：单个货物运输组件中的总重量小于 100 公斤（海运）。

## 8. PRECAUTION 危险防范

Please keep in mind the following points when designing and manufacturing equipment. Please insert in your instruction manual. To prevent equipment malfunctions from affecting the batteries, be sure to use protection devices for electrical circuits and batteries.

在设计和生产设备的时候，请充分考虑下述事项，并将其加入到说明书中。为防止因电池影响造成设备故障，确保电路及电池配有防护装置。

△! Danger

Failure to carefully observe the following procedures and precautions can result in leakage of battery fluid (electrolyte), heat generation, explosion, fire and serious personal injury!

违反下述事项将会导致电池漏液、发热、爆炸、着火以及严重的人身伤害!

Never dispose of batteries in a fire or heat them.

禁止将电池投入火中或加热。

Do not connect the (+) positive and (-) negative terminals of batteries together with electrically conductive materials, including lead wires. Do not transport or store batteries with their uncovered terminals or connected with a metal necklace or other electrically conductive material. When carrying or storing batteries, use a special case.

勿将电池正负极用导电物，如导线等直接连接。如正负极引出片未套绝缘套，请勿运输或储藏，运输及储藏电池注意勿让金属项链或其他导电物相接触，运输或储藏请用专用器具。

Never disassemble batteries. Doing so may cause an internal or external short circuit or result in exposed material of battery reacting chemically with the air. It may also cause heat generation, explosion and fire. Also, this is dangerous as it may cause splashing of alkaline fluid.

禁止拆开。拆卸电池会引起外部或内部短路，导致暴露的电池成分在空气中发生化学反应，会导致发热、爆炸、着火，还会造成电池碱液的飞溅，非常危险。



Never solder lead wires directly on to batteries.

勿将导线直接焊接在电池上。

The (+) positive and (-) negative terminals of batteries are predetermined. Do not force the terminals to connect to a charger or equipment. If the terminals cannot be easily connected to the charger or the equipment, check if the (+) and (-) terminals are incorrectly positioned.

电池正负极位置已预先设定，勿强迫将正负极端与充电器或用电设备连接，如果正负极端不能轻易接上充电器或设备，请检查正负极端位置是否正确。

The gas release vent which release internal gas is located in the (+) positive terminal of the battery. For this reason, never deform this section or cover or obstruct its gas release structure.

用于释放电池内气体的减压阀位于正极端，因此禁止将该减压装置弄变形或阻塞。

Do not connect the battery directly to the DC power supply or to the vehicle power supply. 禁止将电池直接与直流电源或与汽车电源相连接。

Batteries contain a strong colorless alkaline solution (electrolyte). The alkaline solution is extremely corrosive and will cause skin damage. If any fluid from a battery comes in contact with user's eyes, they should immediately flush their eyes and wash them thoroughly with clean water from the tap or another source and consult a doctor urgently. The strong alkaline solution can damage eyes and lead to permanent loss of eyesight.

电池内含有无色强碱溶液(电解液)，有强烈的腐蚀性，会引起皮肤灼伤。如果出现碱液接触使用者眼睛，应立即用清水冲洗，并请医生紧急处理，该强碱性电解液会损伤眼睛并导致永久失明。

When batteries are to be incorporated in equipment or housed within a case, avoid air-tight structures, as this may lead to the equipment or the case being damaged or may be harmful to users.

如果用电池内置于设备或外套壳套，应避免采用气密结构，因这样会导致设备/外壳损害或对使用者有害。

△! Warning 警告!

Do not apply water, seawater or other oxidizing reagents to batteries, as this can cause rust and heat generation. If a battery becomes rusted, the gas release vent may no longer operate, and can result in explosion.

勿将水、海水或其他的氧化试剂对电池进行处理，因这会引起电池生锈及发热。如果电池生锈，其减压阀将不能工作，因而会导致爆炸。



Do not over-charge batteries by exceeding the predetermined charging period specified by the battery charger's instructions or indicator. If batteries are not fully charged after the battery charger's predetermined charging period has elapsed, stop the charging process. Prolonged charging may cause leakage of battery fluid, heat generation, and explosion. Be sure to handle recharged batteries carefully as they may be hot.

勿过充电池，即不要超过充电器说明或指示的预设充电时间继续充电。如果经过充电器预设充电时间充电后仍未充满，请停止充电，延长充电时间将会导致电池漏液、发热及爆炸。

Batteries contain a strong colorless alkaline solution (electrolyte). If the skin or clothing comes in contact with fluid from a battery; thoroughly wash the area immediately with clean water from the tap or another source. Battery fluid can irritate the skin.

电池内含有无色强碱溶液(电解液)，如果皮肤或衣服与电解液接触，用清水彻底冲洗。电池的电解液会腐蚀皮肤。

Do not connect more than 21 batteries in series, as this may cause electrical shocks, leakage of battery fluid and heat generation.

严禁将多于 21 颗电池串联，因这样会导致触电、漏液或发热。

Do not remove the outer tube from a battery or damage it. Doing so will expose the battery to the risk of a short circuit, and may cause leakage of battery fluid, heat generation, explosion and fire.

勿将电池外壳拆除，因这样会导致电池短路，引起漏液、发热、着火及爆炸。

If batteries leak fluid, change color, change shape, or change in any other way, do not use them, otherwise they may cause heat generation, explosion and fire.

如电池漏液、变色、变形或有其他变化，请停止使用，否则会导致发热、爆炸、着火。

Keep batteries and the equipment using them out of the reach of babies and small children, in order to avoid accidental swallowing of the batteries. In the event the batteries are swallowed, consult a doctor immediately.

将电池及用电池驱动之电子产品放置于婴儿、小孩难以触摸的地方，以免出现误吞食电池之意外。如果发生此意外，立即请医生处理。

When the operating time of a battery becomes much shorter than its initial operating time even after recharged, it should be replaced to a new battery as its battery life has ended.

当电池充满电后其使用时间远远少于其初始时的工作时间时，即该电池使用寿命已满，须换用另一新电池。



△! CAUTION 注意!

Do not strike or drop batteries.

勿碰撞或跌落电池。

Store batteries out of the reach of babies and small children. When charging or using a battery, do not let babies or small children remove the battery from the charger or the equipment being used.

将电池放置于婴儿、小孩不能触及的地方。电池充电及设备使用电池时，勿让婴儿、小孩将电池从充电器或设备上取下。

Be sure to charge batteries within a temperature range of 0 to 40 deg C (degrees Celsius).

请在 0 ~ 40 摄氏度环境下充电。

Be sure to use the recommended charging method for batteries read the battery charger' s instruction manual carefully.

请遵照建议的充电时间充电并仔细阅读充电器说明书。

Do not use or store battery at high temperature, such as in strong direct sunlight, in cars during hot weather, or directly in front of a heater. This may cause leakage of battery fluid. It could also impair performance and shorten operating life of batteries.

勿在高温下使用或储藏电池，例如在强烈阳光直射，天气炎热时在汽车内，及在发热器前直接使用。这会引起电池漏液， 减弱电池性能，缩短电池寿命。

Be sure to turn off the equipment after use of batteries, otherwise may result in leakage of battery fluid.

请确保设备在使用完毕后经关闭，否则会引起电池漏液。

After removed from equipment, store batteries in a dry place and within the recommended storage temperature range. This will help preserve the batteries' performance and durability and minimize the possibility of leakage of battery fluid or corrosion. (battery recommends the storage temperature range from -20 to +30deg. (for longer service life).

电池从设备上取下后应在干燥或建议之温度范围的地方放置，这有助于维持电池的性能，尽可能小地避免电池漏液或腐蚀(电池建议在-20~30 摄氏度环境下储藏电池，以便延长电池的寿命)。

Storage batteries should be charged one time every four months under the storage temperature of 30°C and below, every three months under 40°C and below, and every one month under 50°C and below.

当电池分别储存在不高于 30°C，40°C，50°C 下环境时，应每隔 4 个月，3 个月，1 个月对其充电 1 次。

After long term storage, there is a possibility that the battery could not be fully charged



In order to fully charge it, please charge and discharge battery for a few times.

对于长期储存的电池，有可能该电池不能完全充满电，为了使这些电池可以充满电，请对其充放电几个循环。

Do not use old and new batteries mixed together, or batteries at different charge levels. Do not use the battery mixed with a dry cell or other batteries of different capacity, type, or brand name. This may cause leakage of battery fluid and heat generation.

新旧电池及不同电量的电池不可混在一起使用，勿将我司电池与干电池或其他不同容量、不同种类、不同品牌的电池混在一起使用，这会导致电池漏液及发热。

If the battery terminals become dirty, clean up them with a soft dry cloth prior to use. Dirt on the terminals can result in poor contact with the equipment, loss of Company, or inability to charge.

如果电池引出端弄脏，请在使用前用干燥柔软的布擦拭，引出端的脏物会引起接触不良，掉电或无法充电。

### 9. BATCH ACCEPTANCE 批量验收

The sampling procedure shall be established in accordance with IEC61951-2:2017 10.3 table 34. Unless otherwise agreed between supplier and purchaser, inspections and tests shall be performed using inspection levels and AQLS (acceptable quality level) recommended in table as follow:

检验方案参考 IEC61951-2:2017 10.3 表 34 推荐的《批量接收检验程序》进行批量验收（除非双方另有协议则以协议要求为准），各项检测和试验采用下表检验水平和 AQL（接收质量限）。

Group 组别	Clause or sub clause 条款或分条款	Inspection/tests 检查/测试	Recommendation 推荐	
			Inspectio n level 检验水平	AQL %
A	As agreed 按照约定	Visual inspection 目视检查	II	4
		- absence of mechanical damage 无机械损伤	II	4
		- absence of corrosion on case and terminals 外壳和端子无腐蚀	S3	1
		- number, position and secure fittings of connection tabs 连接标签的编号、位置 和安全配件	II	0.65
		-absence of liquid electrolyte on case and terminals 外壳和端子上没有液体电解质		
B	Clause 6 As agreed	Physical inspection 物理性能检查	S3	1
		-dimensions 尺寸	S3	

	5.3	-marking 标识		1
C	7.3.2 7.3.2	Electrical inspection 电气性能检查 - open-circuit voltage and polarity 开路电压 - discharge at 20 ° C at 0,2 It A 0.2C 放电	II S3	0.65 1

NOTE Two or more failures on a single cell are not cumulative. Only the failure corresponding to the lowest AQL is taken into consideration.

备注：同一颗电池上的两项缺陷或多项缺陷不进行累计，只将其计算为对应最小AQL 值的一项缺陷。

## 10. WARRANTY 保证

The battery packs are warranted 12 months from the ex-factory date.

电池质保期从出厂开始计算，质保期为12个月。

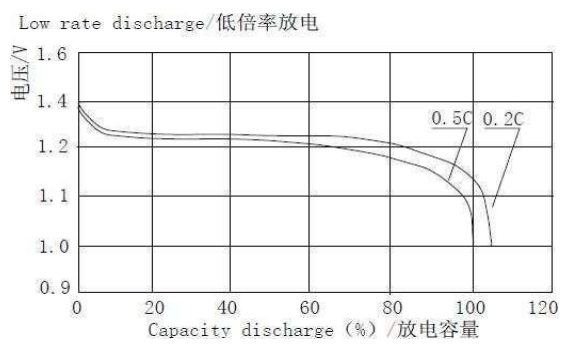
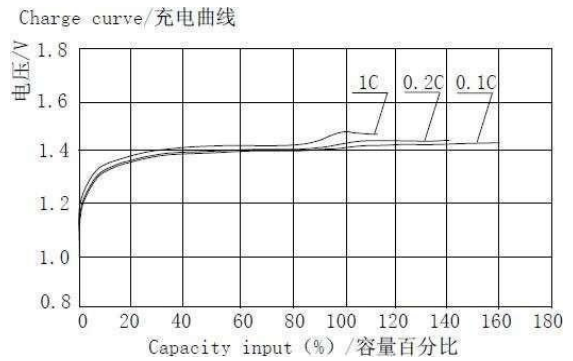
Warranty shall not be applicable in the cases where customer improperly handle, operate, test, install, service and disassemble the battery packs or fails to follow the instructions, cautions, warnings, notes provided in the specifications.

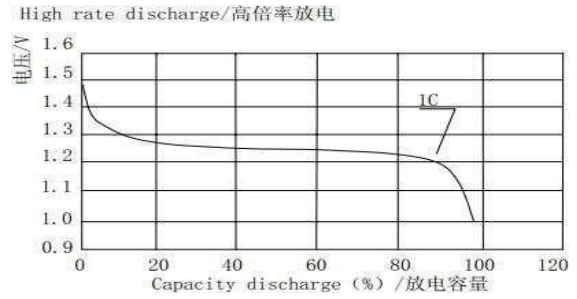
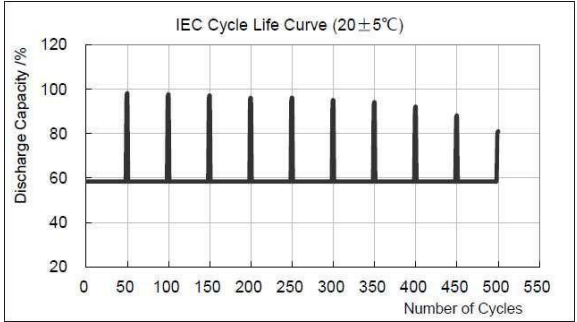
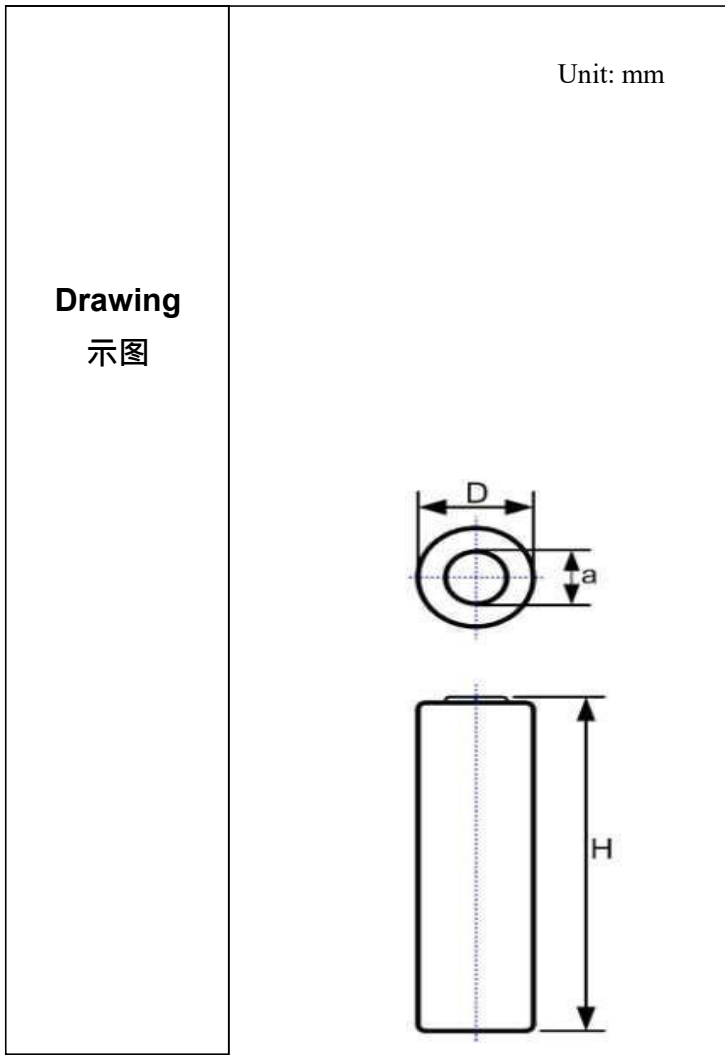
如果客户不正确地处理、操作、测试、安装、维修和拆卸电池组，或者不遵守说明书中的指导、注意事项、警告、说明，则我司的质保条款不适用。

## Type/型号: Rechargeable Nickel Metal Hydride Cylindrical Cell/可充镍氢圆柱形电池

### Specification of single cell/单支电池规格

Nominal voltage (V) 标称电压		1.2	
Capacity* 容量 (mAh)	Typical 典型	≥290min	
	Nominal 标称	≥280min	
	Minimum 最小	≥275min	
Charging** 充电	Standard 标准	0.1C×16hours	
	Quick 快速	0.2C×7hours	
	Rapid 急速	0.5C×2.4hours	
	Cut-off condition 截止条件	-dV=5mV dT/dt=0.8~1.0°C/min Tco=55°C	
Ambient temperature (recommended) 环 境温度条件 (建议) (°C)	Standard charge 标充	0~40	
	Quick charge 快充	0~40	
	Rapid charge 急充	0~40	
	Standard discharge 标准放电	0~40	
	Storage 存放	-20~30	
Internal resistance 内阻		≤45mΩ	
End voltage of discharge 终止电压		1.0V	
Charge (capacity) retention 荷电保持 (20°C 28 days 0.2C discharge to 1.0V)		≥660mAh (60%)	
Weight 重量		Approx. 13.0	
Dimensions With tube 带套管尺寸	D	Diameter 直径	10.5+0/-0.5
	H	Height 高	44.5+0/-1.0
	a	Top diameter 帽径	3.7+0.1/-0.1





**Note:**

\*: The cycle life curve describes battery unit. Please discharge to the 1.0V

注意:

\*该循环寿命曲线描述的是单体电池的循环寿命，充电前应将电池以 0.2C 电流放电至终止电压 1.0V。