

## Product Specification

Name : Ni-Cd Battery

Model: Ni-Cd AA1000mAh 1.2V

Stock Code : \_\_\_\_\_

Author: Zhenfeng Huang

Review: Peter

Approval: Sam

Date: 2018/01/05

Item	Signature	Date
Customer Signature		

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd AA 1000 Mah Rechargeable Battery (Top Head) Ver: A0 NO:900.600.503.125

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## 修改记录

版本号	日期	更改人	内容
A0	2018-1-5	Peter	起草

### 1、 APPLICATION

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Model : Ni-Cd AA1000mAh 1.2V

Cell Size : AA ( $\phi 14.5^{+1.0} \times 50.5^{+1.5}$ )

## 2、 DATA OF STACK UP BATTERIES/

All data involves voltage and weight to stack-up battery are equal to the value of unit cell times the number of unit cell which consisted in the stack-up batteries.

Example:

Stack-up battery consisting three unit cells

Nominal voltage of unit cell=1.2V =1.2V

Nominal voltage of stack-up batteries=1.2V $\times$ 3=3.6V

## 3、 RATINGS

Description	Unit	Specification	Conditions	
Nominal Voltage	V	1.2	Unit cell	
Nominal Capacity	mA h	1000	Standard Charge/Discharge/	
Standard Charge	mA	100(0.1C)	Ambient Temperature: Ta= 20 $\pm$ 5 $^{\circ}$ C	
	Hour	16		
Trickle Charge		(0.03C)-(0.05C)	Ta = 0-45 $^{\circ}$ C	
Standard discharge	mA	200(0.2C)	Ambient Temperature: Ta = 20 $\pm$ 5 $^{\circ}$ C Humidity: Max / : 85%	
Discharge Cut-off Voltage	V	1.0		
Operating temperature range	$^{\circ}$ C	0-45 $^{\circ}$ C	Humidity: Max : 85%	
Storage Temperature	$^{\circ}$ C	-20-35 $^{\circ}$ C	一年	Fully charged state、 Humidity、 Max.60%
		0-60 $^{\circ}$ C	一周	Fully charged state、 Humidity、 Max.80%
Typical Weight	g	Approx.21.0		

## 4、 PERFORMANCE

Unless otherwise stated, tests should be done within one month of delivery under the following conditions

Ambient Temperature, T: 20 $\pm$ 5 $^{\circ}$ C

Relative Humidity: 65 $\pm$ 20%

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Test	Unit	Specification	Other Condition	Remarks
Capacity	mA h	1000	Standard Charge Discharge	up to 3 cycles are allowed
Open Circuit Voltage(OCV)	V	$\geq 1.25$	Within 1 hour after standard Charge	
Internal Impedance	m $\Omega$ / Cell	$\leq 40$	Upon fully charge(1 K Hz)/	
High Rate Discharge(1.0C)	minute	$\geq 48$	Standard Charge, 1 hour rest Before Discharge by 1.0C to 1.0 V	up to 3 cycles are allowed
Overcharge		No leakage nor explosion	0.1C Charge 14 days	
Charge Retention	mA h	$\geq 650(65\%)$	Standard Charge, Storage: 7 day rest at 45 Ambient Temperature, Standard Discharge	
IEC Cycle Life	Cycle	$\geq 500$	IEC61951-1(2003)7.4.1.1	(see Note )
Leakage Test		No leakage nor deformation	Fully charged at 0.5C for 2.5 hour stand for 14 days.	
Security Test		No explosion, but leakage or deformation is allowed	Charge the cell 0.1C 16hrs, Then $\leq 100$ m $\Omega$ Impedance short circuit for 1hour	Ambient Temperature: T=20 $\pm$ 5 $^{\circ}$ C
Impact Resistance		Change of voltage should be under 0.02V/ Cell Change of impedance should be under 5 m $\Omega$ / Cell / 电压变化 < 20mV / 只, 内阻变化 < 5 m $\Omega$ / 只	Charge the cell 0.1C 16hrs Then leave for 1-4hrs, check battery before/after dropped, Height 50cm Wooden board (thickness 30mm) Direction not specified, 3 times.	Ambient Temperature: T=20 $\pm$ 5 $^{\circ}$ C

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Vibration Resistance		Change of voltage should be under 0.02V/cell, Change of impedance should be under 5	Charge the battery 0.1C 16hrs, then leave for 24hrs, check Battery before/after vibration, Amplitude 1.5mm Vibration 3000CPM, Any direction for 60mins.	Ambient Temperature/ : T=20±5°C
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## 5、 CONFIGURATION, DIMENSIONS AND PACKINGS

Please refer to the attached drawing.

## 6、 EXTERNAL APPEARANCE

The cell/battery shall be free from cracks, scars, breakage, rust, discoloration, leakage nor deformation.

## 7、 CAUTION

- 1) Reverse charging is not acceptable
- 2) Charge before use. The cells/batteries are delivered in an uncharged state.
- 3) Do not charge/discharge with more than our specified current.
- 4) Do not short circuit the cell/battery Permanent damage to the cell/battery may result.
- 5) Do not incinerate or mutilate the cell/battery.
- 6) Do not solder directly to the cell/battery.
- 7) The life expectancy may be reduced if the cell/battery is subjected adverse conditions like: extreme temperature, deep cycling, excessive overcharge/ over-discharge.
- 8) Store the cell/battery uncharged in a cool dry place. Always discharge batteries before bulk storage or shipment.

### Notes:

- 1) Ambient Temperature.
- 2) Approximate charge time from discharged state is for reference only. .
- 3) We recommend cells or batteries are charged and discharged at least once every 6 months. .
- 4) IEC61951-1(2003)7.4.1.1 Cycle Life:/

Cycle No.	Charge	Rest	Discharge
1	0.1C×16h	None	0.25C×2h20min
2-48	0.25C×3h10min	None	0.25C×2h20min
49	0.25C×3h10min	None	0.25C to 1.0V/ cell

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50	0.1C×16h	1-4h	0.2C to 1.0V/ cell
Cycles 1 to 50 shall be repeated until the discharge duration on any 50th Cycle becomes less than 3 h			

## 8、 Other/

- 1) The information ( subject to change without prior notice ) contained in this document is for reference only and should not be used as a basis for product guarantee or warranty.
- 2) Manufacturer reserves the right to alter or amend the design, model and specification without prior notice.

# POWER-XTRA

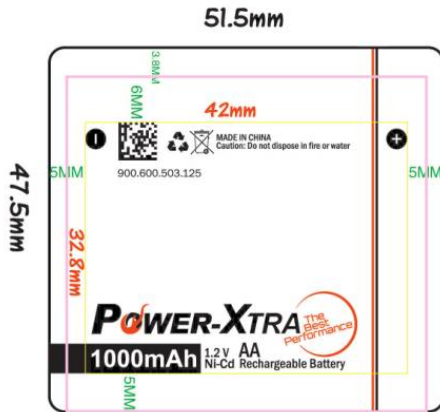
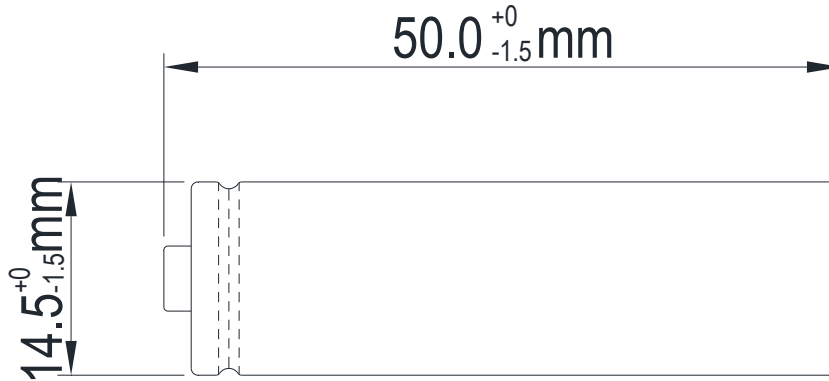
Model : Power-Xtra 1.2V Ni-Cd AA 1000 Mah Rechargeable Battery (Top Head) Ver: A0 NO:900.600.503.125

Attached Drawing / 附图

标签印字方式: 不干胶卷标。

日期印字方式: 喷码。日期随生产日期更改, YY 为年, MM 为月, 如 1606 (2016 年 06 月)。

标签: 2D(Data Matrix)二维码, 内容为“8680187001421”。日期按出货月份更改, 日期可喷码。年份在前, 月份在后 (年月), 如: 1706 (2017 年 06 月)。



C04-0171 尺寸: 47.5x51.5

喷码: 1801



备注:

1. 极膜尺寸: 47.5x51.5x0.07mm.
2. 在“非光油区”喷字: 1712, 1712为年月码, 随订单而变更。

NO	NAME	SIZE	QTY	NOTE
1	CELLS	AAJ1000MAH	1	NICD
2	PVC	51.5*47.5*0.07MM	1	
				MODEL
				DESIGN BY
				CHECKER
				VERSION

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## Drawing Packing

PP 袋单独包装，每箱不超 10KG，内置防潮袋，贴侧唛；客户定制 Logo 外箱；外箱 Logo 内容格式如下：

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侧唛：

条形码格式为：GS1(EAN.UCC)/ENA-13 Bar code，侧唛分别贴于纸箱两侧（尺寸视纸箱尺寸更改），内容及格式如下：

PO NO.	Order	← 根据每次订单号更改
MODEL NO.	900.600.503.125	
QTY	500PCS	← 根据每箱数量更改
DATE	YYYY-MM-DD	← 根据出货日期更改
Made in China		
		
8 680187 001421		