

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3

NO:900.600.503.047

## 产品规格书 Product Specification

Name : Ni-Cd Battery

Model: Ni-Cd D4000 mAh 1.2V

Application: \_\_\_\_\_

Author: Zhengfeng Huang

Review: Peter

Approval: Sam

Date: 2017/09/20

Item	Signature 签名	Date 日期
Customer Signature 客户确认		

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3 NO:900.600.503.047

## Revision History 版本记录

Revision 版本	Date 日期	Editor 编著	Contents 内容
A0			Draft
A1	2017-07-03	Peter	增加标签图
A2	2017-07-17	Peter	更正标签条码内容
A3	2017-11-20	Abby	更改面垫颜色

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3 NO:900.600.503.047

## 1、APPLICATION/描述

Model / 电池标称: Ni-Cd PX-KD4000-1.2V

Cell Size/ 单体尺寸: D ( $\phi 32.5^{+0.5} \times 59.0^{-1.5}$ )

## 2、DATA OF STACK UP BATTERIES/组合电池的指标

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/组合电池的电压、重量等数据, 近似等于组成其单体电池数与对应值之乘积。

Example/ 例如:

Stack-up battery consisting three unit cells/ 电池组包括三个单体电池

Nominal voltage of unit cell=1.2V/ 单体电池的额定电压=1.2V

Nominal voltage of stack-up batteries=1.2V $\times$ 3=3.6V / 电池组的额定电压=1.2V $\times$ 3=3.6V

## 3、RATINGS/额定性能

Description/项目	Unit/单位	Specification/指标	Conditions/条件
Nominal Voltage/	V/cell	1.2	
Nominal Capacity/	mAh	4000	Standard Charge/Discharge/标准充放
Standard Charge/ 标准充电	mA	400(0.1C)	Ambient Temperature/环境温度: Ta= 20 $\pm$ 5 $^{\circ}$ C
	Hour	16	
Trickle Charge/涓充		(0.03C)-(0.05C)	Ta= 0-45 $^{\circ}$ C
Standard discharge/ 标准放电	mA	800(0.2C)	Ambient Temperature/环境温度: Ta= 20 $\pm$ 5 $^{\circ}$ C Humidity: Max/最大湿度: 85%
Discharge Cut-off Voltage /放电截止电压	V/cell	1.0	
Operating temperature range/工作温度	$^{\circ}$ C	-20-45 $^{\circ}$ C	Humidity: Max /最大湿度: 85%
Storage Temperature 贮存温度	$^{\circ}$ C	-20-35 $^{\circ}$ C	一年 Fully charged state、Humidity、Max.60% 满电状态下, 最高环境湿度 60%
		0-60 $^{\circ}$ C	一周 Fully charged state、Humidity、Max.80% 满电状态下, 最高环境湿度 80%
Typical Weight/ 单体电池重量	g	Approx.106g	

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3 NO:900.600.503.047

## 4、 PERFORMANCE/ 电池性能

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

除非另有说明，测试须在发货后一个月内在下述条件下进行：

Ambient Temperature/环境温度, T: 20±5°C

Relative Humidity/相对湿度: 65±20%

Test/测试项目	Unit/单位	Specification/指标	Other Condition/其它条件	Remarks/备注
Capacity/容量	mAh	4000	Standard Charge Discharge 标准充放	up to 3 cycles are allowed
Open Circuit Voltage(OCV)/	V/Cell	≥1.25	Within 1 hour after standardCharge	
Internal Impedance/交流内阻	mΩ/ Cell	≤15	Upon fully charge(1KHz)/	
High Rate Discharge(0.5C)	minute	≥96	Standard Charge, 1 hour rest Before Discharge by 0.5C to 1.0 V/cell	up to 3 cycles are allowed
Overcharge/过充		No leakage nor explosion	0.1C Charge 14 days	
Charge Retention	mAh	≥2400(60%)	Standard Charge, Storage: 7 day rest at 45 Ambient Temperature, Standard Discharge	
IEC Cycle Life/	Cycle	≥500	IEC 61951-1(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 nor deformation is allowed	Charge the cell 0.1C 16hrs, Then ≤100 mΩ Impedance short circuit for 1 hour	Ambient Temperature T=20±5°C
Impact Resistance/抗撞击		Change of voltage should be under 0.02V/ Cell Change of impedance should be under 5 mΩ/ Cell/电压变化 <20mV/只, 内阻变化<5 mΩ/只	Charge the cell 0.1C 16hrs Then leave for 1-4hrs, check battery before/after dropped, Height 50cm Woodenboard(thickness 30mm) Direction not specified, 3 times.	Ambient Temperature/环境温度: T=20±5°C
Vibration Resistance		Change of voltage should be under 0.02V/cell, Change of impedance should be under 5 milliohm/cell/	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

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3 NO:900.600.503.047

## 5、CONFIGURATION, DIMENSIONS AND PACKINGS / 电池结构、尺寸、包装物

Please refer to the attached drawing. / 参见附图

## 6、EXTERNAL APPEARANCE / 外观

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

CAUTION / 使用注意事项

- 1) Reverse charging is not acceptable. / 勿将电池反极充电
- 2) Charge before use. The cells/batteries are delivered in an uncharged state. / 初次用前先充电，所提供的电池为未充电态
- 3) Do not charge/discharge with more than our specified current. / 避免以高于指定的电流充放电
- 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. / 勿拆解或焚烧电池
- 6) Do not solder directly to the cell/battery. / 勿在电池上直接焊接
- 7) The life expectancy may be reduced if the cell/battery is subjected adverse conditions like: extreme temperature, deep cycling, excessive overcharge/ over-discharge. / 如超高温、深度循环
- 8) Store the cell/battery uncharged in a cool dry place. Always discharge batteries before bulk storage or shipment. / 电池应贮存于凉爽干燥处；组合电池或装定前应将电池放电。

### Notes:

- 1)  $T_1$ : Ambient Temperature. / 环境温度
- 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: / 循环寿命

Cycle No. / 循环周次	Charge / 充电	Rest / 搁置	Discharge / 放电
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
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 / 循环至任一第 50 次放电时间不足 3 小时为止。

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3 NO:900.600.503.047

## 8. Other/其他

- 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. For applications other than those described here, please consult your nearest Power-Xtra sales and Marketing office or Distributors./ 本文件所包含的信息（包括未经事先通知所作的变更）仅供参考使用，并不能用于作为品质担保或声明。未尽事宜，请向就近的 Power-Xtra 营销办事处或分销商咨询。
- 2) Manufacturer reserves the right to alter or amend the design, model and specification without prior notice./ 供应商保留在不事先通知的情况下对设计、型号和规格修正和改进的权利。

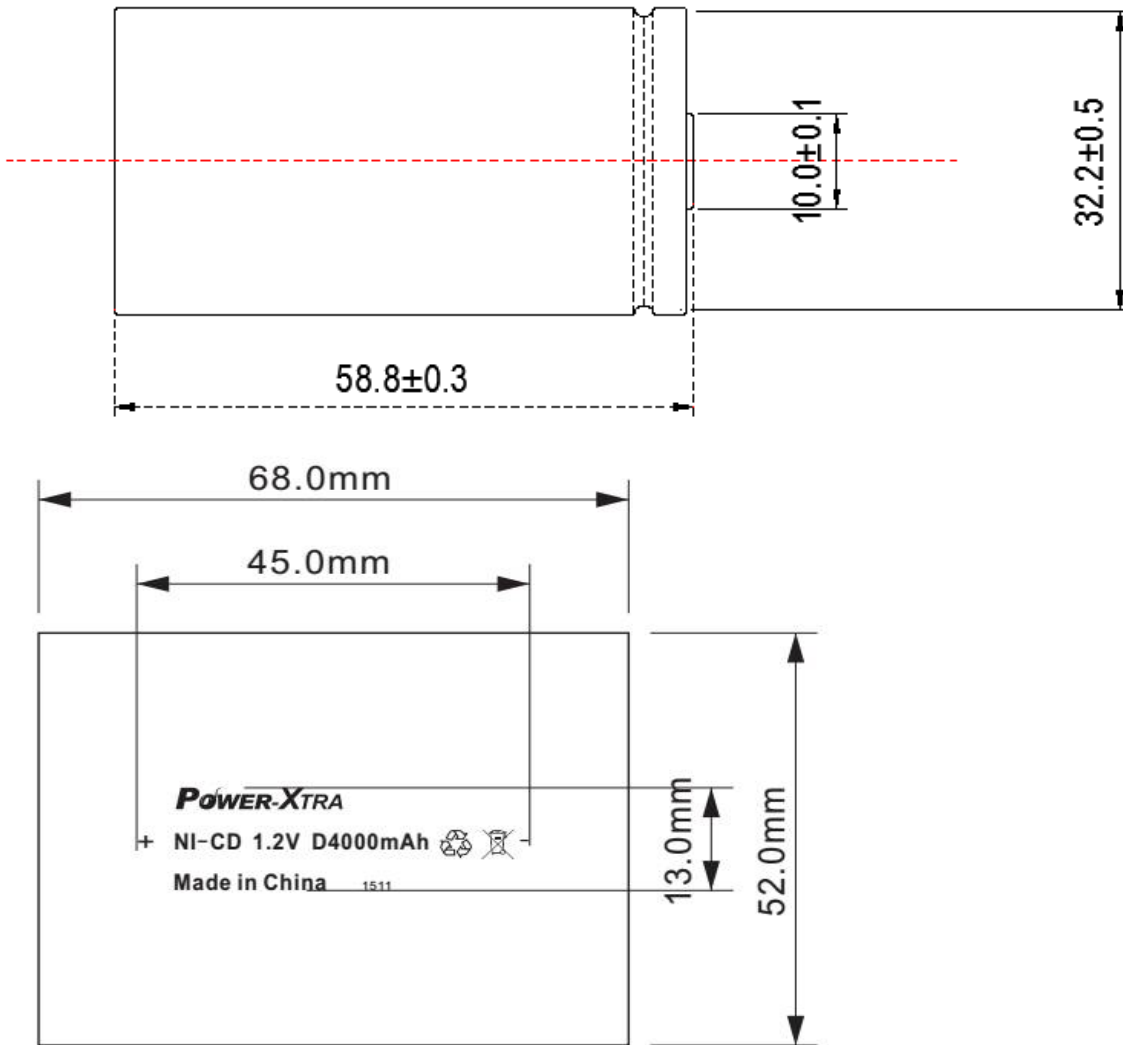


# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3

NO:900.600.503.047

组装图纸:



白色 PVC, GS1(EAN.UCC)/ENA-13 Bar code 条形码, 内容为“8680187000790”。日期按出货月份更改。年份在前, 月份在后 (月年), 如: 1706 (2017 年 06 月)。

NO	NAME	SIZE	QTY	NOTE		
1	Cell	D4000mAh*平头	1	Ni-CD		
2	面垫	30.3*10*0.3MM	1	WHITE		
3	PVC	52*68*0.1MM	1	白色亮光丝印	MODEL	900.600.503.047
4					DESIGN BY	
5					CHECKER	
6					VERSION	

# POWER-XTRA

Model : Power-Xtra 1.2V Ni-Cd D Size 4000 Mah Rechargeable Battery (Flat Head) Ver: A3 NO:900.600.503.047


## Drawing Packing 包装图

PP 袋单独包装，再装内盒，每箱不超 10KG，贴侧唛；客户定制 Logo 外箱；外箱 Logo 内容格式如下：

# POWER-XTRA

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	← 根据每次订单更改
MODEL NO.	900.600.503.047	
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 000790		