FR-XTRA 

# Product Specification

Name :	Power-Xtra Ni-Cd Battery
Model:	PX-KSC2200-1.2V
Stock Code:	900.600.503.031
Author:	
Review:	
Approval:	
Date:	

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#### 1、APPLICATION

Model : Ni-Cd PX-KSC2200-1.2V Cell Size: SC ( $\phi$ 23.0<sup>-1.0</sup>×43.0<sup>-1.5</sup>)

# 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

Nominal voltage of stack-up batteries=1.2V×3=3.6V

# 3、 RATINGS

Description	Unit	Specification		Conditions	
Nominal Voltage	v	1.2			
Nominal Capacity	mAh	2200		Standard Charge/Discharge	
	mA	220(0.1C)		Ambient Temperature: Ta= 20±5℃	
Standard Charge	Hour	16			
Trickle Charge		(0.03C)~(0.05C)		Ta= 0~45℃	
Standard discharge	mA	440(0.2C)		Ambient Temperature: Ta= 20±5℃ Humidity: Max: 85%	
DischargeCut-off Voltage	v	1.0			
Operating temperature range	°C	0~45°C		Humidity: Max /最大湿度: 85%	
Storage Temperature	°C	-20~35℃	一年	Fully charged state、Humidity、Max.60%	
		0~60°C	一周	Fully charged state、Humidity、Max.80%	
Typical Weight	g	Approx.50g			



#### 4 PERFORMANCE

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

Ambient Temperature, T: 20±5°C

Test	Unit	Specification	Other Condition	Remarks
Capacity	mAh	≥2200	Standard Charge Discharge	up to 3 cycles are allowed
Open Circuit Voltage(OCV)	V	≥1.25	Within I hour after standard Charge	
Internal Impedance	mΩ/ Cell	≤25	Upon fully charge(IK Hz)	
High Rate Discharge(0.5C)	minute	≥96	Standard Charge, I hour rest Before Dischargeby0.5Cto1.0 V	up to 3 cycles are allowed
Overcharge		No leakage nor explosion	0.1CCharge14 days	
Charge Retention	mAh	≥1430(65%)	Standard Charge, Storage:7 day rest at 45°C Ambient Temperature, Standard Discharge	
IEC Cycle Life	Cycle	≥500	IEC61951-1(2003)7.4.1.1	(see Note 4)
Leakage Test		No leakage nor deformation	Fully charged at0.5C for 2.5 hour stand for 14 days.	
Security Test		No explosion, bu t leakage or defo rmation is allowe d	Charge the cell 0.1C 16hrs, Then≤100 mΩImpedance short circuit for 1hour	Ambient Temperature: T=20±5℃
Impact Resistance		Change of voltage should be under 0.02V/ Cell Change of impedance should be under 5 mΩ/ Cell	Charge the cell 0.1C 16hrs Then leave for 1~4hrs,check battery before/after dropped, Hei ght 50cm Wooden board(thickness30mm) Direction not specified,3 times.	Ambient Temperature: T=20±5℃
Vibration Resistance		Change of voltage should be under 0.02V/cell, Change of impedance	Charge the battery 0.1C 16hrs, then leave for 24hrs,check Battery before/after vibration, Amplitude 15mmVibration 3000	Ambient Temperature: T=20+5°C

should be under5

milliohm/cell/

Amplitude 1.5mmVibration 3000

CPM, Any direction for 60mins.

Relative Humidity: 65±20%

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) T<sub>1</sub>: 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		
50	0.1C×16h	1-4h	0.2C to 1.0V/ cell		
Cycles I 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.,

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