

POWER-XTRA

Model : Power-Xtra 1.2V Ni-Mh 4/5SC 2200 Mah Power Type Battery Ver:A0 NO: 900.600.503.094

PX-H4/5SC2200P- 1.2V Battery Spec

Model: PX-H4-5SC2200P-1.2V

Customer P/N: 900.600.503.094

Cell Type: 4/5SC2200P

Nominal Voltage: 1.2V

Capacity: 2200mAh

Draft	Approved	Customer Confirmation
Peter		

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1. Picture



2. Scope

This specification governs the performance of the following Power-Xtra Nickel-Metal Hydride cylindrical battery .

3. External Appearance

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

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4. Ratings

The data involving the nominal voltage and the approximate weight of the battery pack.

Description	Unit	Specification	Conditions
Nominal Voltage	V	1.2	Unit: PCS
Rated Capacity	mAh	2200	Standard charging / discharging
Minimum Capacity	mAh	2200	Standard charging / discharging
Standard Charge	mA	220 (0.1C)	Ta 环境温度=15~25°C (see note)
	hour	16	
Fast Charge	mA	1100(0.5C)~2200 (1.0C) With charge termination control	-ΔV=6~10mv/PCS Timer cutoff=110% input capacity Temp. cutoff= 40~50°C, Ta= 0~40°C dT / dt=0.6°C/ min
	hour	2.4 approx.(0.5C) 1.2 approx.(1.0C)	
Trickle Charge	mA	110 (0.05C)	Ta =15~25°C (see note)
Discharge Cut-Off Voltage	V	1.0	Less than1.0C discharge
		0.8	3C-10C discharge
Maximum Continuous Discharge Current	mA	22000 (10C)	Ta= -10~30°C
Storage Temperature (Percent 40-60 charged state)	°C	-20-50	Less than 30 days
		-20-40	Less than 90 days
		-20-25	Less than 360 days
	%	65±20	Relative humidity
Typical Weight	g	45	Approx.

5. Performance

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

Relative humidity: 65±20% RH。

Ambient Temperature (Ta) : 20±5°C。

***Notes:Standard charge / discharge condition

Charge: 220 mA (0.1C) x 16 hrs

Discharge: 440 mA (0.2C) to 1.0V/PCS。

***The batteries must be standard discharged before charging

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***Battery test vide infra:

Test	Unit	Specification	Conditions	Remarks
Capacity	mAh	≥2200	Standard Charge / Discharge	Up to 3 cycles Allowed
Open Circuit Voltage (OCV)	V	≥1.25	Within 1 hr after standard charge	Unit: PCS
Internal Impedance (Ri)	mΩ	≤12	Upon fully charge (1Khz)	Unit: PCS
Rapid Discharge (1.0C)	min	≥54	Standard charge, 30min rest before discharge at 1.0C to 1.0V/PCS	Up to 3 cycles Allowed
High Rate Discharge (10C)	min	≥5.2	Standard charge, 30min rest before discharge at 10C to 0.8V/PCS	Up to 3 cycles Allowed
Over discharge Over charge	N/A	No leakage nor explosion	0.1C charge for 48H	
Self discharge	mAh	≥1430(65%)	Standard charge, storage for 28 days, standard discharge 20°C	
	mAh	≥1430(65%)	Standard charge, storage for 7 days, standard discharge	
IEC Cycles Test	cycle	≥500	IEC 61951-2(2003) 7.4.1.1	
Short Circuit	N/A	Deformatio & leakage may occur but no explosion	After standard charge, short circuit for 1 hr (lead wire =1.0mm ² x 20mm)	
Vibration Test	N/A	Δ V<0.05V	Charge at 0.1C for 16 hrs, then leave for 24 hrs. Check battery before/after vibration. Amplitude: 1.5mm, Vibration: 3000CPM any direction for 60 mins	
Drop Test	N/A	Δ V<0.05V	Charge at 0.1C for 16 hrs, then leave for 24 hrs. Check battery before / after drop on the wooden board of Thickness: 30 mm Height: 50 cm Direction is not specified test for 3 times.	

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6. Configurations, Dimensions And Markings

Please refer to the related drawing.

7. Warranty

One year limited warranty against workmanship and material defect.

8. Cautions

1. Reverse charging is not acceptable.
2. Charge before use, use the correct charger for Ni-MH batteries.
3. Do not charge / discharge with more than the specified current.
4. Do not short circuit the cell / battery.
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 to adverse conditions, like extreme temperature, deep cycling, excessive overcharge /over-discharge.
8. Store the cell / battery in a cool dry place.
9. For charging methods please reference to TMK technical handbook.
10. When find battery power down during use, please switch off the device to avoid overdischarge.
11. When not using a battery, disconnect it from the device
12. well-ventilated place out of direct sunlight.
13. During long term storage, battery should be charged and discharged once every half a year.
14. When the battery is hot, please do not touch it and handle it, until it has cooled down.
15. Do not mix Power-Xtra batteries with other battery brands or batteries of a different chemistry such as alkaline and zinc carbon batteries.
16. Do not mix new batteries in use with semi-used batteries, battery may be over-discharged.
17. Keep away from children. If swallowed, contact a physician at once.

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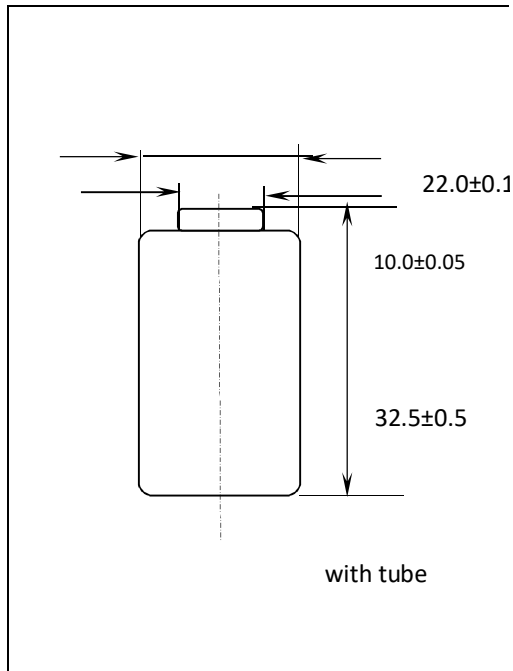
Specifications of single cell

Dimensions (mm)

MODEL No: PX-H4-5SC2200P

Description:2200mAh SC SIZE NI-MH

Specification



Nominal Capacity		2200 mAh	
Nominal Voltage		1.2 V	
Charge current	Standard	220mA	
	Quick	1100mA	
	Fast	2200mA	
Charge time	Standard	14~16 Hrs	
	Quick	2.4 Hrs	
	Fast	1.2Hrs	
Ambient Temperature 使用温度	Charge 充电	Standard	0°C~45°C
		Quick	10°C~40°C
		Fast	10°C~40°C
	Discharge		-20°C~60°C
Storage		-20°C~35°C	
Internal Impedance(AC) (After Charge)		Max≤12.0	
Weight		45g	

