

Product Specification

Product Model: Nickel-Metal Hydride Battery

Product Type: J-SC3000X

Draw up: Technical Department

Date: 2010-11-16



Add: No.83 YongSheng Road, Baisha Ind. Dev., JiangMen City, GuangDong Province, P.R. China

Tel: 86-750-3534405

Fax: 86-750-3534305

Web address: <http://www.jjjbattery.com>

E-Mail: jjj@jjjbattery.com

**1 、 SCOPE**

This specification governs the performance of the following **J J J** Nickel-Metal Hydride cylindrical cell and its stack-up battery.

JJJ Model: SC3000P

Cell Size: SC(22.0±0.1×42.0±0.5)mm

2 、 DATA OF STACK UP BATTERIES

All data involve voltage and weight of stack-up batteries are equal to the value of unit cell multiplied by the number of unit cell which consisted in the stack-up batteries

Example : Stack-up batteries 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	Condition
Nominal Voltage	V/cell	1.2	Unit cell or stack-up batteries
Minimum Capacity	mAh	2900	Standard Charge/Discharge
Nominal Capacity	mAh	3000	Standard Charge/Discharge
Standard Charge	mA	300 (0.1C)	T ₁ =20±5°C(See Note 1)
	hour	16	
Fast Charge	mA	3000 (1.0C)	- ΔV=0~5mV/cell , Timer Cutoff=120%nominal capacity , Temp.Cutoff=55°C, dT/dt=0.8°C/min, T ₁ =20±5°C
	hour	1.1 approx (See Note 2)	
Trickle Charge	mA	(0.03C)~(0.05C)	T ₁ =20±5°C
Standard discharge	mA	600 (0.2C)	T ₁ = 20±5°C Humidity: Max85%
Discharge Cut-off Voltage	V/cell	1.0	
Storage Temperature	°C	-20~25	Within 1 year*
		-20~35	Within 6 months
		-20~45	Within 1 month
		-20~55	Within 1 week
Typical Weight	Gram	57	unit cell

*To keep the best performance for those not used for a long time,we recommend to charge the cells/batteries at least 30% after discharge entirely in every 6 months.

JJJ reserves the right to alter or amend the design,model and specification without prior notice.

JIANGMEN JJJ BATTERY CO.,LTD.

**4、 PERFORMANCE**

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

Ambient Temperature : 20±5°C

Relative Humidity : 65±20%

Notes: Standard Charge/Discharge conditions:

Charge: 300 mA(0.1C)× 16 hours

Discharge: 600 mA(0.2C) to 1.0V/cell

Test	Unit	Specification	Condition	Remarks
Capacity	mAh	≥ 2900	Standard Charge/Discharge	up to 3 cycles are allowed
Open Circuit Voltage(OCV)	V	≥ 1.25	Within 1 hour after standard charge	
Internal Impedance	mΩ	≤ 6	Upon fully charge(1KHz)	
High Rate Discharge(1C)	min	≥ 51	Standard Charge, 1 hour rest before discharge by 1C to 1.0V/cell	up to 3 cycles are allowed
Charge Retention	mAh	≥ 1800 (60%)	Standard Charge, Storage 28days Standard Discharge	T ₁ =20±5°C
IEC Cycle Life	Cycle	≥ 500	IEC61951-2(2003)7.4.1.1	see Note 3
Leakage		No leakage nor deformation	Fully charged at : 300 mA for 48 hrs	
Vibration Resistance		Change of voltage should be less than 0.02V/cell,change of impedance should be less than 5milliohm/cell	Charge the battery at 0.1C for 14hrs,then leave for 24hrs,check battery before/after vibration,amplitude 1.5mm,vibration 3000 CPM,any direction for 60mins.	
Impact Resistance		Change of voltage should be less than 0.02V/cell,change of impedance should be less than 5milliohm/cell	Charge the battery at 0.1C for 14hrs,then leave for 24hrs,check battery before/after dropped,height 50 cm wooden board(thickness 30mm)direction not specified,3 times.	
Maximum continuous discharge current	A	30(10C)		
Maximum momentary discharge current	A	45(15C)		

JJJ reserves the right to alter or amend the design,model and specification without prior notice.

JIANGMEN JJJ BATTERY CO.,LTD.



5、 CONFIGURATION, DIMENSIONS AND MARKINGS

Please refer to the attached drawing.

6、 EXTERNAL APPEARANCE

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

7、 WARRANTY

One year limited warranty against workmanship and material defects.

8、 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 cells/batteries may result.
- [5]Do not incinerate or mutilate the cells/batteries.
- [6]Do not solder directly to the cells/batteries.
- [7]The expected life may be reduced if the cells/batteries are subjected to adverse conditions as:
extreme temperature, deep cycling, excessive overcharge/ over-discharge.
- [8]Store the cells/batteries in a cool dry place. Always discharge batteries before packing.

Notes:

- [1] T₁: Ambient Temperature.
- [2] Approximate charge time from discharged state, for reference only.
- [3] IEC61951-2(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
Cycle 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3 h.			

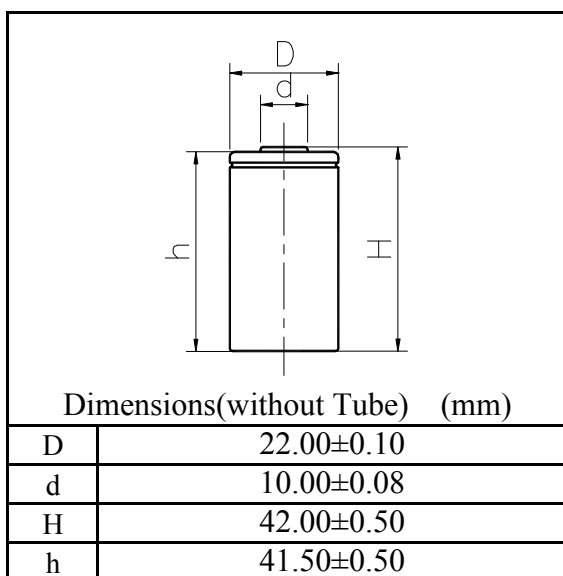
JJJ reserves the right to alter or amend the design,model and specification without prior notice.

JIANGMEN JJJ BATTERY CO.,LTD.

JJJ Battery Co.,LTD.

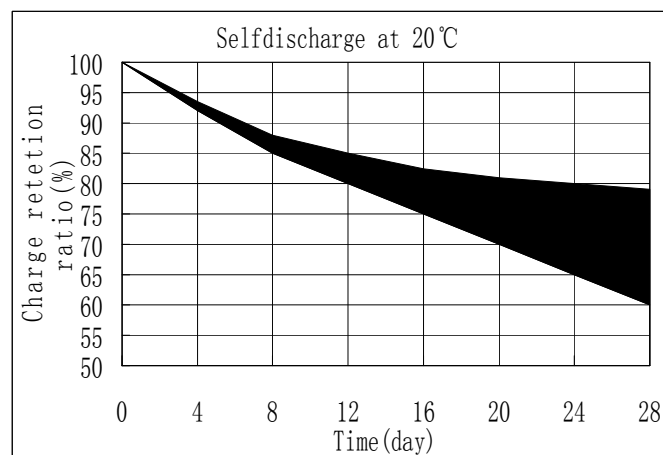
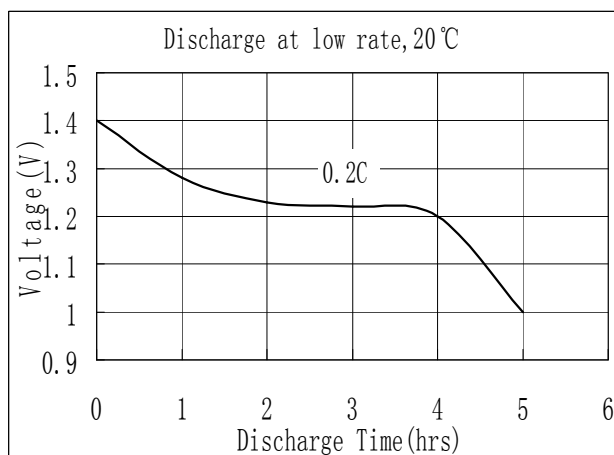
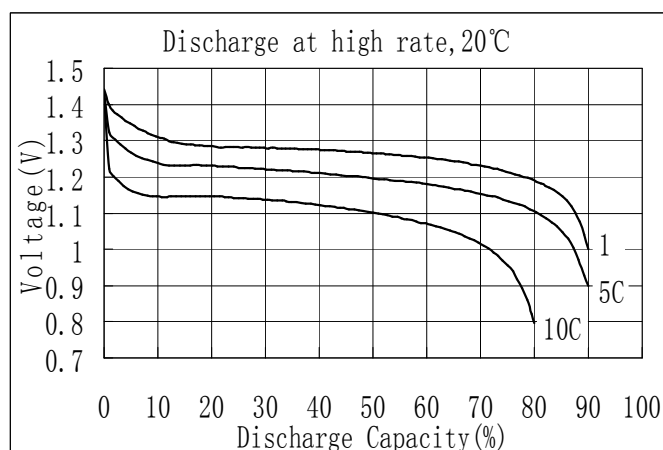
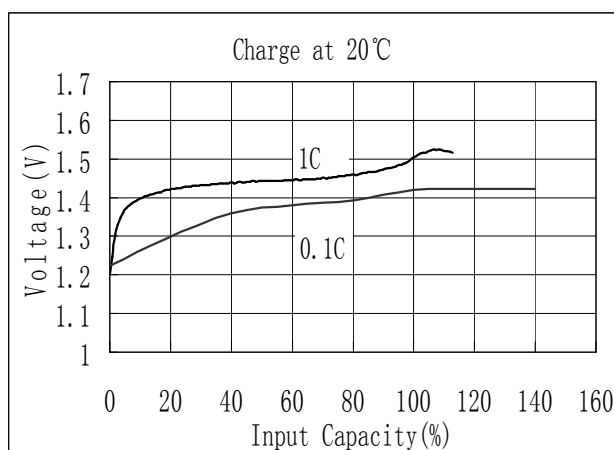
MODEL No: J-SC3000X

Description: 3000 mAh SIZE Ni-MH SC



Specification

Nominal Capacity		3000 mAh	
Nominal Voltage		1.2 V	
Charge current	Standard	300 mA	
	Fast	3000 mA	
Charge time	Standard	16 Hrs	
	Fast	1.1 Hrs	
Ambient Temperature	Charge	Standard	0°C~45°C
		Fast	10°C~45°C
	Discharge		-30°C~60°C
	Storage		-20°C~55°C
Internal Impedance(mΩ) (After Charge)		≤ 6	
Weight		57 g	



JJJ reserves the right to alter or amend the design,model and specification without prior notice.

JIANGMEN JJJ BATTERY CO.,LTD.