



Great Power Battery Co. Ltd.

Excellent Quality, Prompt Delivery and Competitive Price

APPROVAL SHEET

To: _____

Model: PH-H-1/4AAA80

Prepared by: _____

Checked by: _____

Approved by: _____

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GREAT POWER BATTERY CO., LTD.

1. Preface

This specification is suitable for the performance of the **GREAT POWER** Ni-MH rechargeable battery.

2. Model

PH-1/4AAA80

3. Appearance

There shall be no such defects as deformation,flaw,stain,discoloration or electrolyte leakage.

4. Nominal specification

Description		Specification	
Model		PH-1/4AAA80	
Size		1/4AAA	
Dimensions	Diameter(mm)	10.5+0/-0.5	
	Height(mm)	10.5+0/-1.0	
	Weight(g)	Approx.3g	
Nominal Voltage(V)		1.2	
Nominal capacity(mAh)		80	
Internal Impedance(m Ω)		≤150	
Discharge Cut-off Voltage		1.0V	
Ambient temperature	Charge	standard	0°C to 40°C
		fast	10°C to 40°C
	Discharge		-10°C to 50°C
	Storage	<1 year	-10°C to 30°C
		<3 months	-10°C to 40°C
		The relative humidity should keep with in 65±20%	

5.Characteristics

Unless otherwise specified, the standard range of atmospheric conditions for test as follows:

Ambient temperature $20 \pm 5^{\circ}\text{C}$

Relative humidity $65 \pm 20\%$

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Atmospheric pressure $960 \pm 100\text{mbar}$

Accuracy of voltmeters and amperometers to be used in testing shall be equal to or better than the grade 0.5.

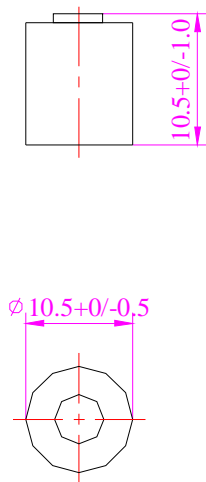
Test item		Condition		Specification
1. Charge	Standard	Charge at 0.1C for 16 hours		
	Fast	Charge at 1C to $-\Delta V=5-10\text{mV}$		
2. Discharge		At 0.2C to 1.0V		
3. Discharge cut-off voltage				1.0V
4. Capacity (mAh)	Minimum	Standard charge/discharge		70mAh
	Typical	Standard charge/discharge		80mAh
5. Internal resistance		After fully charge, rest 1 hour, measured at 1000Hz		$\leq 150\text{m}\Omega$
6. Self-Discharge		The charged battery is stored for 28 days at $20^\circ\text{C} \pm 5^\circ\text{C}$. And the discharge time is measured at standard discharge		$\geq 180\text{minutes}$
7. High temperature test		Store at 40°C 、 50°C 、 60°C for 2 hours then charge/discharge		No leakage
8. Low temperature test		Store at 0°C for 2 hours then charge/discharge		No leakage
9. Short circuit test		Short circuit after fully charge		No explode
10. Drop test		Free fall on the concrete floor from 1 meter after fully charged		No leakage No short-circuit
11. Cycle life	Charge	Rest	Discharge	Capacity retention $\geq 60\%$ after 500cycles
1	0.1C for 16h	0	0.25C for 2h20min	
2~48	0.25C for 3h10min	0	0.25C for 2h20min	
49	0.25C for 3h10min	0	0.2C to 1.0V	
50	0.1C for 16h	1~4h	0.2C to 1.0V	

Ni-MH rechargeable cylindrical cell (Data Sheet)

Specification

Nominal Voltage		1.2V	
Dimensions	Diameter	10.5+0/-0.5mm	
	Height	10.5+0/-1.0mm	
	Apx. Weight	3g	
0.2C Discharge Capacity	Typical	80mAh	
	Minimum	70mAh	
Typical Internal Impedance		Less than 150mΩ	
Charge	Standard	8mA for 16hrs	
	Fast	80mA for about 75min	
Life expectancy		500 cycles	
Operating Temperature	Charge	Standard	0°C to 40°C
		Fast	10°C to 40°C
	Discharge		-10°C to 50°C
	Storage	< 1 year	-10°C to 30°C
< 3 months		-10°C to 40°C	

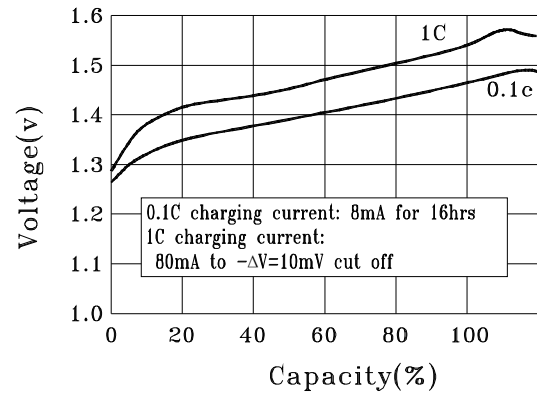
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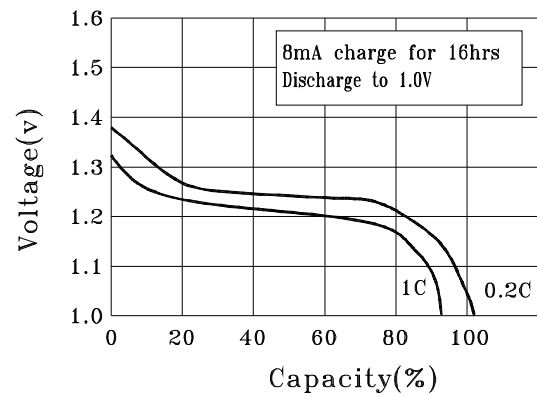
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CHARGE CHARACTERISTICS



DISCHARGE CHARACTERISTICS



DISCHARGE CHARACTERISTICS AT DIFFERENT TEMPERATURE

