

APPROVAL SHEET

To: _____

Model: _____

B/N 250132
PH-AA1800H

Prepared by: _____

Checked by: _____

Approved by: _____

1. Preface

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

2. Model

PH-AA1800H

3. Appearance

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

4. Nominal specification

Description		Specification	
Model		PH-AA1800H	
Size		AA	
Dimensions	Diameter(mm)	14.0 ± 0.2	
	Height(mm)	50.0 ± 0.3	
	Weight(g)	Approx.29g	
Nominal Voltage(V)		1.2	
Nominal capacity(mAh)		1800	
Internal Impedance(m Ω)		≤ 28	
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 $65 \pm 20\%$	

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 $\pm 20\%$

Atmospheric pressure 960 ±100mbar

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

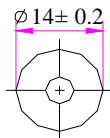
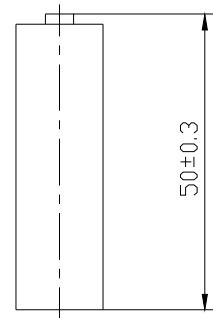
Test item		Condition		Specification
1. Charge	Standard	Charge at 0.1C for 16 hours		
	Fast	Charge at 0.5C to $-\Delta V=5\sim 10\text{mV}$		
2. Discharge		At 0.2C to 1.0V		
3. Discharge cut-off voltage				1.0V
4.Capacity (mAh)	Minimum Standard	Standard charge/discharge		1800
	Typical	Standard charge/discharge		1850
5. Internal resistance		After fully charge,rest 1 hour, measured at 1000Hz		$\leq 28\text{ m}\Omega$
6. Self-Discharge		The charged battery is stored for 28 days at $20\text{ }^{\circ}\text{C} \pm 5^{\circ}\text{C}$. And the discharge time is measured at 0.2C or 0.5C discharge		0.5C discharge $\geq 70\text{minutes}$ 0.2C discharge $\geq 188\text{minutes}$
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 $0\text{ }^{\circ}\text{C}$ 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 from 1 meter 3 times 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)

Data Sheet

Nominal Voltage		1.2V	
Dimensions	Diameter	14.0±0.2mm	
	Height	50.0±0.3mm	
	Apx. Weight	29g	
0.2C Discharge Capacity	Typical	1850mAh	
	Minimum	1800mAh	
Typical Internal Impedance		Less than 28mΩ	
Charge	Standard	180mA for 16hrs	
	Fast	900mA for about 150min	
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	

(CELL DIMENSIONS)



(Without tube)

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