



***NICKEL METAL HYDRIDE  
BATTERY  
NH-AA2200***

**BRIEF SPECIFICATION**

Model: NH-AA2200

Nominal Voltage: 1.2V

Nominal Capacity: 2200mAh

Weight: Approx. 30g

Manufacturer: EEMB Co., Ltd.

Website: <http://eemb.com>

## 1. Preface

This specification is suitable for the performance of the Ni-MH rechargeable battery produced by EEMB CO.,LTD

## 2. Model

NH-AA2200

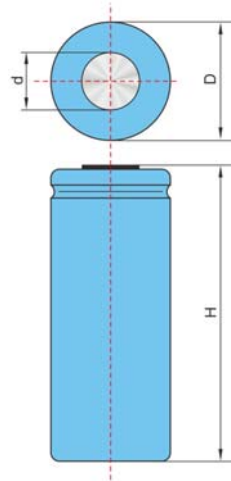
## 3. Nominal Specification

Description	Unit	Specification	Conditions
Nominal Voltage	V	1.2V	
Rated Capacity	mAh	2200	Standard charging / discharging
Minimum Capacity	mAh	2200	Standard charging / discharging
Standard Charge	mA	220 (0.1C)	Ta =0~45℃
	hour	16	
Fast Charge	mA	1100 With charge termination control	-ΔV=5mv/ Pack Timer cutoff=110% input capacity Temp. cutoff= 40~50℃, Ta= 0~40℃ dT / dt=0.6℃/ min
	hour	2.4	
Trickle Charge	mA	66 (0.03C)	Ta =0~45℃
Discharge Cut-Off Voltage	V	1.0	Less than 1.0C discharge
Maximum Continuous Discharge Current	mA	2200(1C)	Ta= -10~50℃
Storage Temperature (Percent 40-60 charged state)	℃	-20-50	Less than 30 days
		-20-40	Less than 90 days
		-20-30	Less than 360 days
	%	65±20	Relative humidity
Typical Weight	g	30.0	Approx.

Note: Any representations in this brochure concerning performance, are for informational purposes only and are not construed as warranties either expressed or implied, of future performance.

#### 4. Dimension of single cell (unit: mm)

Item	Specification
H	50.0±0.5
D	14.0±0.5
d	7.0±0.5



#### 5. Characteristics

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%  
 Standard charge: 220mA (0.1C) ×16hours  
 Standard discharge: 440mA (0.2C) to 1.0V

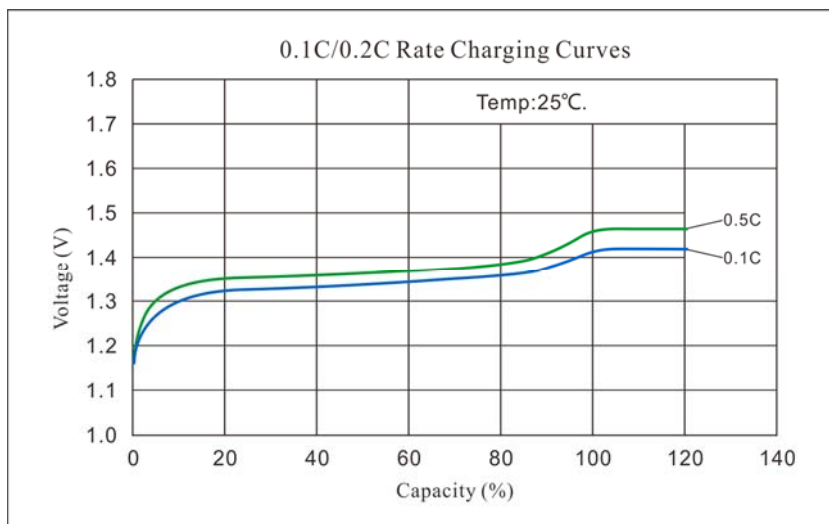
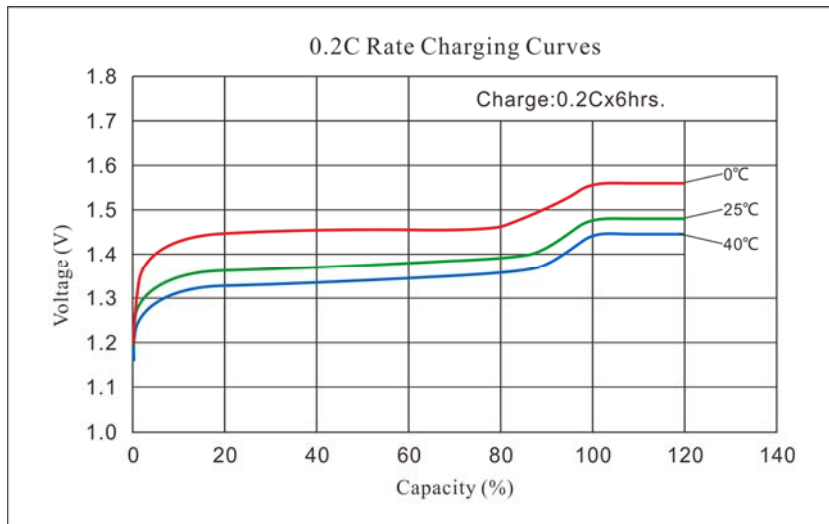
##### 5.1 Battery test

Test	Unit	Specification	Conditions	Remarks
Capacity	mAh	≥2200	Standard Charge /0.2C Discharge	Up to 3 cycles Allowed
Open Circuit Voltage (OCV)	V	≥1.28	Within 7 days after standard charge	Unit: PCS
Internal Impedance (Ri)	mΩ	≤35	Upon fully charge (1Khz)	Unit: PC
Rapid Discharge (0.5C)	min	≥300	Standard charge, 30min rest before discharge at 0.2C to 1.0V	Up to 3 cycles Allowed
Over discharge Over charge	N/A	No leakage nor explosion	less than 220mA (0.1 C) current charging for 48 hours	
Self discharge	mAh	≥1760 (80%)	Standard charge, storage for 1 year, standard discharge at 20°C	
	mAh	≥1540 (70%)	Standard charge, storage for 28 days, standard discharge	
IEC Cycles Test	cycle	≥300	IEC 61951-2(2003) 7.4.1.1	

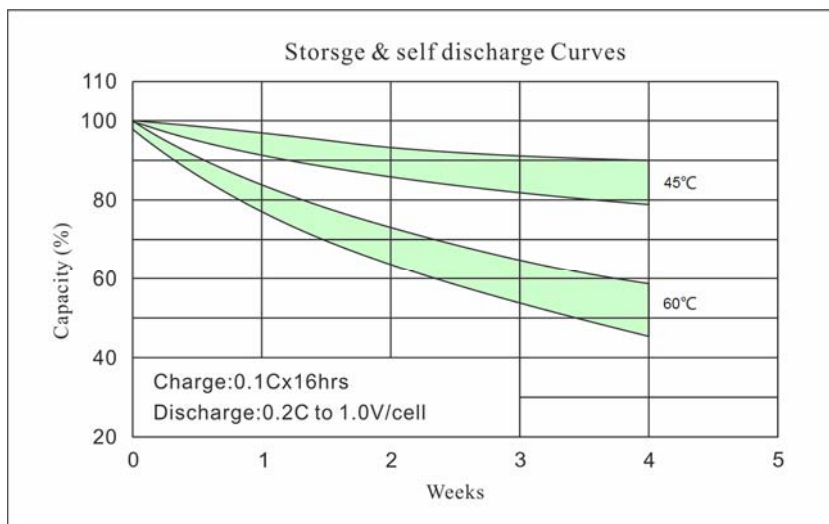
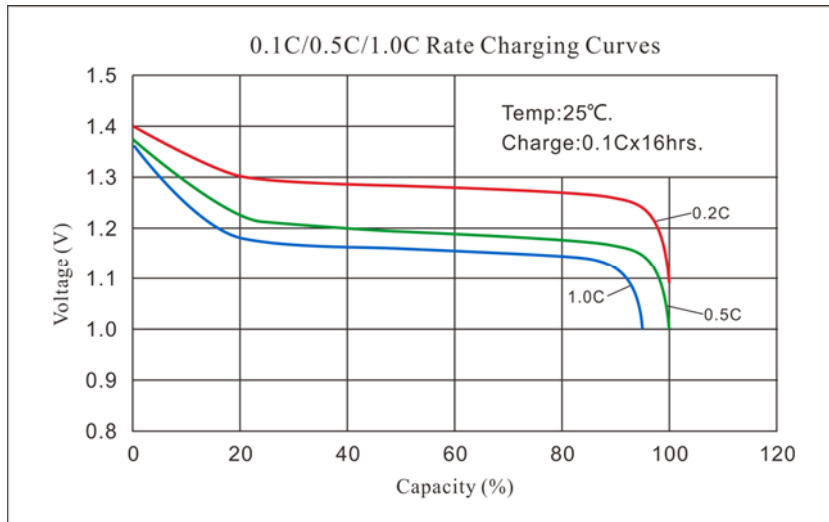
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Short Circuit	N/A	Deformation & leakage may occur but no explosion	After standard charge, short circuit for 1 hr (lead wire =1.5mm <sup>2</sup> x 20mm)
Vibration Test	N/A	V<0.70V	Charge at 0.1C for 16 hrs, then leave for 24 hrs. Check battery before/after vibration. Amplitude: 1.5mm, Vibration: 3000CPM any direction for 60 mins
Drop Test	N/A	V<0.70V	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.

### 5.2 Characteristics Curve



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## 6. Warranty

One year limited warranty against workmanship and material defect.

## 7. Cautions

- ※ Reverse charging is not acceptable.
- ※ Charge before use, use the correct charger for Ni-MH batteries
- ※ Do not charge / discharge with more than the specified current.
- ※ Do not short circuit the cell / battery.
- ※ Do not incinerate or mutilate the cell/battery.
- ※ Do not solder directly to the cell / battery.
- ※ The life expectancy may be reduced if the cell / battery is subjected to adverse conditions, like extreme temperature, deep cycling, excessive overcharge /over-discharge.
- ※ Store the cell / battery in a cool dry place.
- ※ For charging methods please reference to our technical handbook.
- ※ When find battery power down during use, please switch off the device to avoid over discharge.

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- ※ When not using a battery, disconnect it from the device.
- ※ Well-ventilated place out of direct sunlight.
- ※ During long term storage, battery should be charged and discharged once every half a year.
- ※ When the battery is hot, please do not touch it and handle it, until it has cooled down.
- ※ Do not mix batteries with other battery brands or batteries of a different chemistry such as alkaline and zinc carbon batteries.
- ※ Do not mix new batteries in use with semi-used batteries, battery may be over-discharged.
- ※ Keep away from children. If swallowed, contact a physician at once

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