



NICKEL METAL HYDRIDE BATTERY

NH- 2/3A1100

BRIEF SPECIFICATION

Model: NH -2/3A1100
Nominal Voltage: 1.2V
Nominal Capacity: 1100mAh
Weight: Approx. 20.5g
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

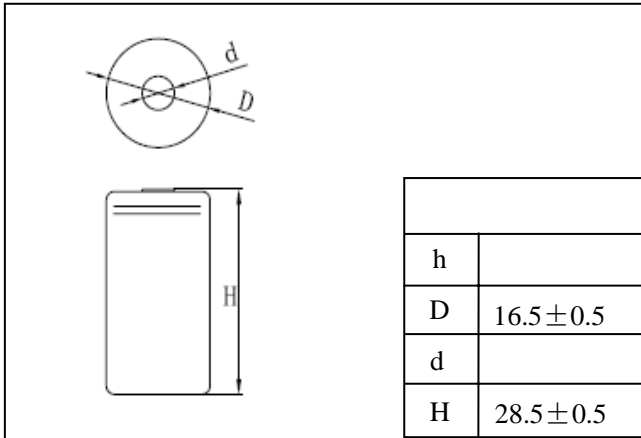
NH-2/3A1100

3. Nominal Specification

Description	Unit	Specification	Conditions
Nominal Voltage	V	1.2V	
Rated Capacity	mAh	1100	Standard charging / discharging
Minimum Capacity	mAh	1100	Standard charging / discharging
Standard Charge	mA	110(0.1C)	Ta =0~45°C
	hour	16	
Fast Charge	mA	550With charge termination control	- ΔV =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	
Trickle Charge	mA	33(0.03C)	Ta =0~45°C
Discharge Cut-Off Voltage	V	1.0	Less than1.0C discharge
Maximum Continuous Discharge Current	mA	11000(10C)	Ta= -10~50°C
Storage Temperature (Percent 40-60 charged state)	°C	-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	20.5	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)



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: 110mA (0.1C) × 16hours
 Standard discharge: 220mA (0.2C) to 1.0V

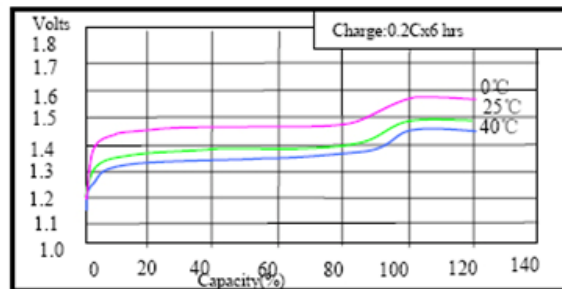
5.1 Battery test

Test	Unit	Specification	Conditions	Remarks
Capacity	mAh	≥1100	Standard Charge / 0.2C Discharge	Up to 3 cycles Allowed
Open Circuit Voltage (OCV)	V	≥1.25	Within 7 days after standard charge	Unit: PCS
Internal Impedance (Ri)	mΩ	≤15	Upon fully charge (1Khz)	Unit: PCS
Discharge (10C)	min	≥4.5	Standard charge, 15min rest before discharge at 10C to 1.0V	Up to 3 cycles Allowed
Over charge	N/A	No leakage nor explosion	less than 10mA (0.1 C) current charging for 48 hours	
Self discharge	mAh	≥770(70%)	Standard charge, storage for 28 days, standard discharge at 20 ± 2°C .standard discharge at 0.2C to 1.0V	
IEC Cycles Test	cycle	≥500	IEC 61951-2(2003) 7.4.1.1	

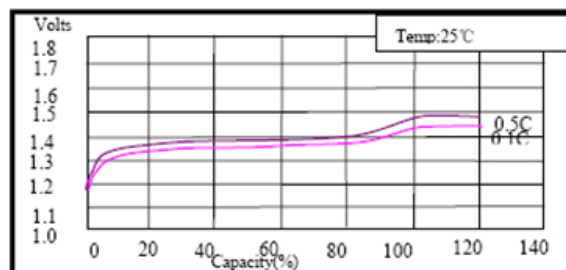
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Short Circuit	N/A	Deformatio & leakage may occur but no explosion	After standard charge, short circuit for 1 hr (lead wire =1.5mm ² x 20mm)
Vibration Test	N/A	V<0.10V	Charge at 0.1C for 16 hrs, then leave for 24 hrs. Check battery before/after vibration. Amplitude: 1.5mm, Vibration: 3000CPM any direction for 60 mins
Drop Test	N/A	V<0.10V	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

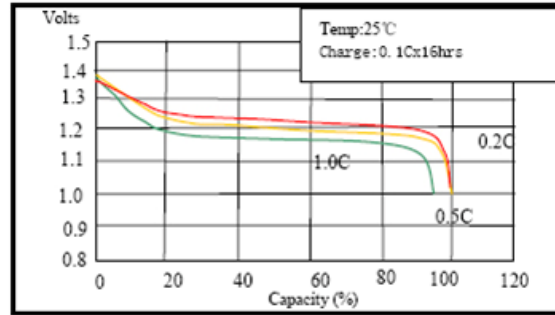


0.2C Rate Charging Curves

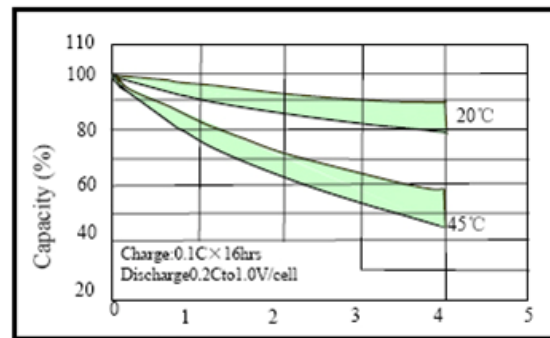


0.1C/0.5C Rate Charging Curves

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0.2C/0.5C/1.0C Rate Discharging Curves



Storage & self discharge Curves Weeks

6. 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.
 - ※ 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.
 - ※ 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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