



**E&J TECHNOLOGY GROUP CO., LTD**

# **Ni-MH Low Self-Discharge Battery Specification**

**Model Number: EJ44AAA800S**

**Doc No:           SPE-NH-0130**

**Version:           01**

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<b>Prepared</b>	<b>Checked</b>	<b>Approved</b>
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## 1、 Scope

This specification is suitable for the performance of the E&J Ni-MH Low Self rechargeable battery.

## 2. Model

EJ44AAA800S

## 3.Appearance

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

## 4.Nominal specification

Description		Specification	
Model		EJ44AAA800S	
Size		AAA	
Dimensions	Diameter (mm)	10.5+0/-0.7	
	Height (mm)	44.0+0/-1.5	
	Weight (g)	Approx. 11.0 g	
Nominal Voltage (V)		1.2	
Nominal capacity (mAh)		800	
Internal Impedance (mΩ)		≤45	
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, test: should be done within one month of delivery under the following conditions:

- ◆ Ambient temperature      20±5°C
- ◆ Relative humidity          65±20%
- ◆ Atmospheric pressure      960±100mbar

Test item		Condition	Specification
1. Charge	Standard	Charge at 0.1C for 16 hours	0°C to 40°C
	Fast	Charge at 0.5C to $-\Delta V=0-5mV$	10°C to 40°C
	Trickle	(0.03C)-(0.05C)	0°C to 40°C
2. Discharge		At 0.2C to 1.0V	
3. Discharge cut-off voltage			1.0V
4. Capacity (mAh)	Minimum	Standard charge/discharge	750
	Typical	Standard charge/discharge	800
5. Internal resistance/		After fully charge, rest 1 hour, measured at 1000Hz	$\leq 45m\Omega$
6. High Rate Discharge		Standard charge 1 hour rest Before Discharge by 0.5C to 1.0V	$\geq 108$ minutes
		Standard charge 1 hour rest Before Discharge by 1C to 1.0V	$\geq 48$ minutes
7. Overcharge		0.1C charger 28 days,	No leakage
8. Charge Retention		The charged battery is stored for 12 months at 20 °C . And the discharge time is measured at standard discharge	Capacity $\geq 75\%$

Cycle time	Charge	Rest	Discharge	
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	
9.Leakage Test		Standard charge stand for 14days		No leakage
10. High temperature test		Store at 40℃、50℃、60℃ for 2 hours then charge/discharge		No leakage
11.Low temperature test		Store at 0℃ for 2 hours then charge/discharge		No leakage
12.Short circuit test		Short circuit after fully charge		No explode
13. Drop test		Free fall on the concrete from 1 meters after fully charged		No leakage No short-circuit

## 6. Cautions in use

To ensure proper use of the battery please read the manual carefully before using it.

- Handling

Do not expose to, dispose of the battery in fire.

Do not put the battery in a charger or equipment with wrong terminals connected.

Avoid shorting the battery.

Avoid excessive physical shock or vibration.

Do not disassemble or deform the battery.

Do not immerse in water.

Do not use the battery mixed with other different make, type, or model batteries.

Keep out of the reach of children

- Storage

Cycle(charge and discharge)the battery every 6-9month to maintain cell/battery performance ,When being stored for an extended period of time

Store the battery in a cool, dry and well-ventilated area.

- Disposal

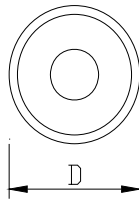
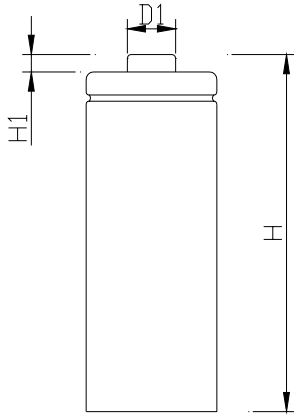
Regulations vary for different countries.

Dispose of in accordance with local regulations.

## 7. Note

Any other items which are not covered in this specification shall be agreed by both parties.

## Appendix: Battery performance curve



Project	Description	Dimension (mm)
D1	Diameter 1	Max 4.0
D	Diameter	10.5 <sup>+0</sup> <sub>-0.7</sub>
H1	Height 1	≥ 1.2
H	Height	44.5 <sup>+0</sup> <sub>-1.5</sub>

