



E&J TECHNOLOGY GROUP CO., LTD

Ni-MH Low Self-Discharge Battery Specification

Model Number: EJ50AA2300S

Doc No: <u>SPE-NH-0133</u>

Version: 01

Date: <u>2012-03-16</u>

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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

EJ50AA2300S

3.Appearance

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

4. Nominal specification

Desription			Specification		
Model			EJ50AA2300S		
Size			AA		
	Diameter(mm)		14.5+0/-0.7		
Dimensio	Height(mm)		50.5+0/-1.5		
ns		Weight(g)	Approx. 29g		
No	Nominal Voltage(V)		1.2		
Non	Nominal capacity(mAh)		2300		
Inter	Internal Impedance(mΩ)		≤30		
Disch	Discharge Cut-off Voltage		1.0V		
	Charge	standard	0°C to 40°C		
		fast	10℃ to 40℃		
Ambient	Discharge		-10℃ to 50℃		
temperature	Storage	<1 year	-10℃ to 30℃		
		<3 months	-10°C to 40°C		
		elative 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

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Test item			Condition		Specification	
1. Charge	Standard	Cha	arge at 0.1C for 16 hours	Ta=0~40°C		
	Fast Charge at 0.5C to -△V=0~5mV			Ta=10~40°C		
Trickle			(0.03C)-(0.05C)		Ta=0~40°C	
2. Discharge			At 0.2C to 1.0V			
3. Discharge cut-off voltage					1.0V	
4.Capacity	Minimum	Standard charge/discharge		2200		
(mAh)	Typical	Standa	rd charge/discharge	2300		
5. Internal resistance		After fu	lly charge,rest 1 hour, measu Hz	≤30mΩ		
6.Hight Rate Dicharge(0.5C)			rd charge 1hour rest Before rge by 0.5C to 1.0V	≥112minutes		
7. Self-Discharge		The charged battery is stored for 12months at 20°C. And the discharge time is measured at standard discharge			Capacity retention≥75%	
8. Overcharge		0.1C charge 28 days			No leakage nor deformation	
9. High temperature test			t 40℃、50℃、60℃ for 2 ho arge/discharge	No leakage		
10. Low temperature test		Store at 0°C for 2 hours then charge/discharge			No leakage	
11. Short circuit test		Short c	ircuit after fully charge	No explode		
12. Drop test		Free fall on the concerte from 1 meters after fully charged			No leakage No short-circuit	
13.Leakage test		standard charge stand for 14days			No leakage nor deformation	
14.Cycle life	Charge	Rest	Discharge	Ca	pacity retention	
1	0.1C for 16h		0.25C for 2h20min	≥60	0% after 500cycles	
2~48	0.25C for 3h10min		0.25C for 2h20min			
49	0.25C for 3h10min		0.2C to 1.0V			
50	0.1C for 16h	1-4h	0.2C to 1.0V			

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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.

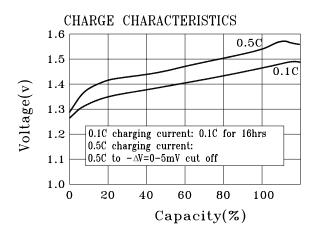
Dispose of in accordance with local regulations.

7. Note

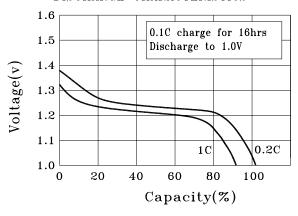
Any other items which are not covered in this specification shall be agreed by both parties.



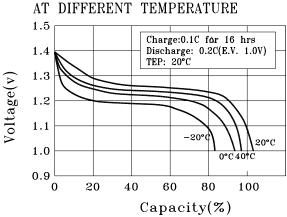
Appendix:Battery performace curve



DISCHARGE CHARACTERISTICS



DISCHARGE CHARACTERISTICS



SELF-DISCHARGE

