

AKUMULATOR EK NI-MH 800mAh ROZMIAR AAA

1. Scope

This specification is suitable for the performance of following nickel metal hydride cylindrical cell and its stack-up battery packs;

Model: AAA800

Size: AAA

The data involving nominal voltage and approximate weight of a battery pack shall be equal to the value of the single cell multiplied by the number of single cell in the battery pack. For example, a battery pack which consisting of 3 cells:

Nominal voltage of single cell=1.2V

Nominal voltage of the battery pack=1.2V×3=3.6V

2. Ratings

Nominal Voltage		1.2V	
Nominal Capacity		800mAh	
Standard Charge		80mA ×16h	
Rapid Charge	Current	Time cut off	4.0h
		-ΔV cut off	0~5mV
	240mA	T cut off	45□
		dT/dt	0.8~1□/min
Trickle Charge Current		40~80mA	
Discharge cut-off Voltage		1.0V	
Maximum continuous discharge current		1280mA	
Temperature Range For Operation	Standard Charge	0~45□	
	Rapid Charge	10~40□	
	Trickle Charge	0~45□	
	Discharge	-20~60□	
	Within 2 years	-20~30□	
	Within 6 months	-20~40□	
	Within 1 months	-20~50□	
Humidity for operation and storage		Ma×85%	
Dimension	Diameter	10.5 _{-0.2} mm	
	Height	44.5 _{-0.5} mm	
Approx. Weight		13.0g	

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3. Performance and test Methods

Unless specially stated, tests should be done within one month of delivery under the following Conditions:

Ambient Temperature (°C): 20±5.

Relative humidity (%): 65±20.

Ambient Humidity : 65±20%

Test Item	Test Conditions				Requirements
1. Standard Charge	First discharge to 1.0V at 80mA, then charge at 40mA for 16 hrs				/
2. Open-circuit Voltage	Rest 1 h after standard charge, then check OCV				≥1.3V
3. Capacity	Rest 30 min after standard charge, then discharge to 1.0V at 80mA. If the discharge time doesn't meet with the requirement, the test should be carried out more times but not over 3 times.				≥5h
4. Capacity (High-rate discharge)	Rest 30 min after standard charge, then discharge to 0.7V at 800mA. If the discharge time doesn't meet with the requirement, the test should be carried out more times but not over 3 times.				≥54minutes
5. Cycle life	Cycle	Charge	Rest	Discharge	≥500cycles
	1	80mA×16h	None	200mA×140min	
	2—48	200mA×190min	None	200mA×140min	
	49	200mA×190min	None	200mA to 1.0V/cell	
	50	80mA×16h	1h	160mA to 1.0V/cell	
Cycles 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3 hrs. Note: refer to IEC61951-2					
6. Potential	Rest 30 min after standard charge, then discharge to 1.2V at 80mA				≥4h
7. Internal Resistance	The battery is measured at 1000Hz with full charge state.				≤25mΩ

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8. Over-discharge	Charge for 48 hrs at 80 mA.	No deformation And leakage
9. Over-discharge	Discharge is conducted with a 1.0Ω/cell load for 24 hours	No deformation And leakage
10. Self-discharge	The battery fully charged is stored for 28 days, and discharged to 1.0V at 80 mA	≥3h
11. Storage	Battery charged fully is stored for 12 months, then check capacity according to (3)	≥4h
12. Humidity	The charged battery is stored for 10 days, at 33±3°C and 80±5% of relative humidity	No leakage
13. Safe Valve Operation	Discharge to 0V at 80mA, then forced discharge at 800mA for 30min.	Not explode or disrupt. *
14. External Short-circuit	The charged battery specified in item (1) is short-circuited for 1 hour.	Not explode*
15. Drop Test	The battery is subjected to a drop which has a height of 45cm(17.7inches) to an oak board of 10mm or more thick in a voluntary axis respectively 3 times	Mechanically and electrically normal

NOTE: * Electrolyte leakage and deformation of battery are acceptable.

4. Suggestions & Cautions

- 4.1 Charge batteries prior to use.
- 4.2 Do not solder directly to battery.
- 4.3 Do not short circuit or reverse charge,
- 4.4 Do not dispose of in fire and keep away from damage.
- 4.5 Store batteries charged in a cool and dry place.
- 4.6 The batteries life may be reduced if they are subjected to adverse conditions such as: extreme temperature, deep cycling, and excessive overcharge/discharge.