1. Scope

This specification is suitable for the performance of following Infapower Nickel-Metal hydride cylindrical cell and its stack-up battery packs

Model: B003 **Size**: AA

Rated Capacity: 1300mAh/0.2C

Standard Charge: 0.1C×16h **Fast Charge***: 1.0 C×72 min

*With -△V control ,When -△V=5mV or dT/ dt =0.8℃/min, stop charge

2. Performance and Test Methods

Before proceed the following tests, the cells should be discharged at 0.2C to 1.0V cutoff. Unless special stated, tests should be done within one month of delivery under the following conditions:

Ambient Temperature: 20±5℃ Ambient Humidity: 65±20%

<table>
<tr><th>Test Item</th><th colspan="4">Test Conditions</th><th>Request</th></tr>
<tr><td>1.Standard Charge</td><td colspan="4">Charge is conducted continuously for 16 hours at the constant current of 0.1CmA after pre-discharge at the constant current of 0.2CmA up to an cut-off voltage of 1.0V.</td><td></td></tr>
<tr><td>2.Open-circuit Voltage</td><td colspan="4">Voltage between terminals of the charged battery specified in item(1) is measured after rest for 1 hour.</td><td>≥1.25V</td></tr>
<tr><td>3.Capacity</td><td colspan="4">Discharge time of the charged battery specified in item(1) is measured at 0.2CmA up to an cut-off voltage of 1.0V after rest for 30 minutes. If the discharge time doesn't reach the specified value, the test may be carried out further twice, up to three times in total.</td><td>≥Minimum capacity</td></tr>
<tr><td rowspan="6">4.Cycle Life</td><td>Cycles</td><td>Charge</td><td>Rest</td><td>Discharge</td><td rowspan="6">≥500cycles</td></tr>
<tr><td>1</td><td>0.1CmA×16h</td><td>None</td><td>0.25CmA×140min</td></tr>
<tr><td>2-48</td><td>0.25CmA×190min</td><td>None</td><td>0.25CmA×140min</td></tr>
<tr><td>49</td><td>0.25CmA×190min</td><td>None</td><td>0.25CmA to 1.0V/Cell</td></tr>
<tr><td>50</td><td>0.1CmA×16h</td><td>1-4h</td><td>0.2CmA to 1 .0V/Cell</td></tr>
<tr><td colspan="4">Cycles 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3h.， Note: IEC61951-2</td></tr>
</table>

Test Item	Test Conditions	Request
5.Internal resistance	The battery is measured at 1KHz with charge state.	≤30mΩ
6.Over-charge	Charge is conducted continuously for 48 hours at 0.1CmA after the capacity test specified in item(3).	No deformation and leakage
7.Over-discharge	Forced discharge is conducted for 24 hours at a constant resistance of 4.6Ω after pre-discharge at a constant current of 0.2CmA up to 1.0V.	No external deformation
8.Self-discharge	The charged battery specified in item(1) is stored for 28 days at 20℃, and the discharge time is measured at 0.2CmA down to 1.0V.	≥60 % Capacity
9.High Humidity	The charged battery is stored for 10 days at 33±3℃ and 80±5% of relative humidity.	No electrolyte leakage
10.External Short Circuit	After standard charge, short-circuit the cell at 20 ℃ ±5℃ until the cell temperature returns to ambient temperature.(cross section of the wire or connector should be more than 0.75mm^2)	No fire and no explosion
11.Safety Valve Operation	Forced discharge is conducted for 30 minutes at a constant current of 1CmA after pre-discharge at a constant current of 0.2CmA up to 0V.	Not explode or disrupt. *
12.Drop Test	The battery is subjected to a drop, which has a height of 1m (39.3inches) 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.

3.Configuration, Dimensions and Markings

Please refer to the attached drawings

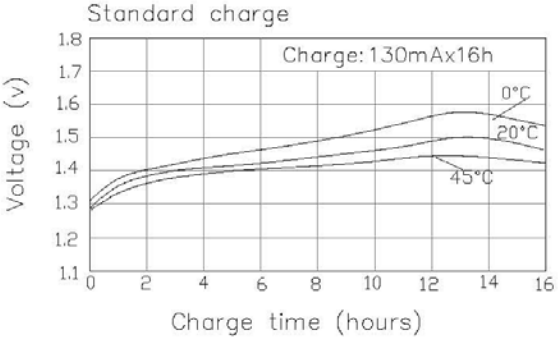
4. General Characteristics

Please refer to the attached drawings

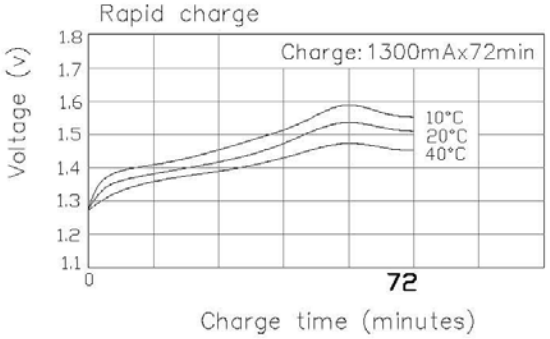
Single Specification		
Product Name		Sealed Nickel Metal Hydride Cylindrical Rechargeable Battery
Model		H-AA1300A
Nominal Voltage		1.2V
Nominal Capacity		1300mAh
Dimension (with tube)	Diameter	$14.5^{+0}_{-0.7}$
	Height	$50.5^{+0}_{-1.0}$
Internal Resistance at 1000Hz		⩽30mΩ (After charge)
Charge	Standard	130mAx16h
	Rapid	1300mAx72min
	Trickle	39~65mA
Discharge Cut-off Voltage		1.0V
Cycle Life		⩾ 500 Cycles
Ambient Temperature	Standard Charge	0°C to 45°C
	Rapid Charge	10°C to 40°C
	Trickle Charge	0°C to 45°C
	Discharge	-20°C to 50°C
	Storage	-20°C to 45°C
Ambient Humidity		65±20%

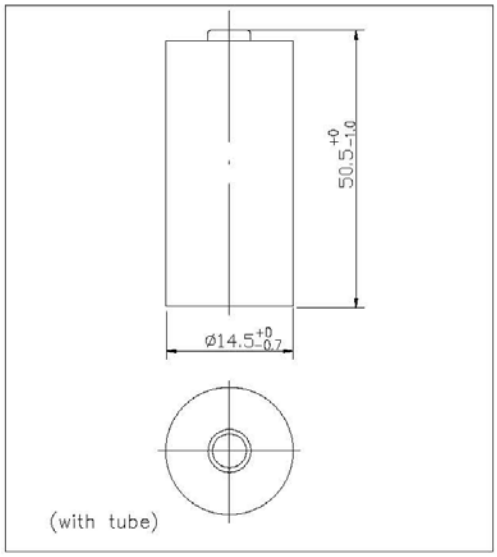
General Characteristics

Standard charge



Rapid charge





Discharge