



1. SCOPE

This specification describes the performance of the following Nickel-Metal Hydride cylindrical cell and its stack-up battery.

MH-1/3AA300 Cell Size: 1/3AA (13.9±0.1×16.3±0.5) mm

2. DATA OF STACK UP BATTERIES

All data involve voltage and weight of stack-up batteries are equal to the value of unit cell multiplied by the number of unit cell which consisted in the stack-up batteries

Example : Stack-up batteries consisting three unit cells

Nominal voltage of unit cell=1.2V

Nominal voltage of stack-up batteries =1.2V×3=3.6V

3. RATINGS

Description	Unit	Specification	Condition
Nominal Voltage	V/cell	1.2	Unit cell or stack-up batteries
Minimum Capacity	mAh	300	Standard Charge/Discharge
Nominal Capacity	mAh	300	Standard Charge/Discharge
Standard Charge	mA	30 (0.1C)	T ₁ =20±5°C (See Note 1)
	hour	16	
Fast Charge	mA	300 (1C)	-ΔV=0~5mV/cell , Timer Cutoff=120% nominal capacity , Temp.Cutoff=55°C, dT/dt=0.8°C/min, T ₁ =20±5°C
	hour	1.2 approx (See Note 2)	
Trickle Charge	mA	(0.03C)~(0.05C)	T ₁ =20±5°C
Standard discharge	mA	60 (0.2C)	T ₁ = 20±5°C Humidity: Max.85%
Discharge Cut-off Voltage	V/cell	1.0	
Storage Temperature	°C	-20~25	Within 1 year*
		-20~35	Within 6 months
		-20~45	Within 1 month
		-20~55	Within 1 week
			State: 30% charge Max Humidity: 85%
Typical Weight	Gram	8.0	unit cell



AA Portable Power Corp
825 S 19th Street, Richmond, CA 94804
Tel: 510-525-2328 Fax: 510-439-2808

<http://www.batteryspace.com> Sales@batteryspace.com

*If you have no plan to use above cell for a longer time, we recommend to charge the cells/batteries at least 30% after discharge entirely in every 6 months.

4. PERFORMANCE

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

Ambient Temperature : $20\pm 5^{\circ}\text{C}$

Relative Humidity : $65\pm 20\%$

Notes: Standard Charge/Discharge conditions:

Charge: 30 mA(0.1C)× 16 hours

Discharge: 60mA(0.2C) to 1.0V/cell

5. CONFIGURATION, DIMENSIONS AND MARKINGS

Please refer to the attached drawing.

6. EXTERNAL APPEARANCE

The cell/battery shall be free from cracks, scars, breakage, rust, discoloration, leakage or deformation.

7. WARRANTY

One year limited warranty against workmanship and material defects.

8. CAUTION

[1]Reverse charging is not acceptable.

[2]Charge before use. The cells/batteries are delivered in an uncharged state.

[3]Do not charge/discharge with more than our specified current.

[4]Do not short circuit the cell/battery Permanent damage to the cells/batteries may result.

[5]Do not incinerate or mutilate the cells/batteries.

[6]Do not solder directly to the cells/batteries.



[7]The expected life may be reduced if the cells/batteries are subjected to adverse conditions as: extreme temperature, deep cycling, excessive overcharge/ over-discharge.

[8]Store the cells/batteries in a cool dry place. Always discharge batteries before packing.

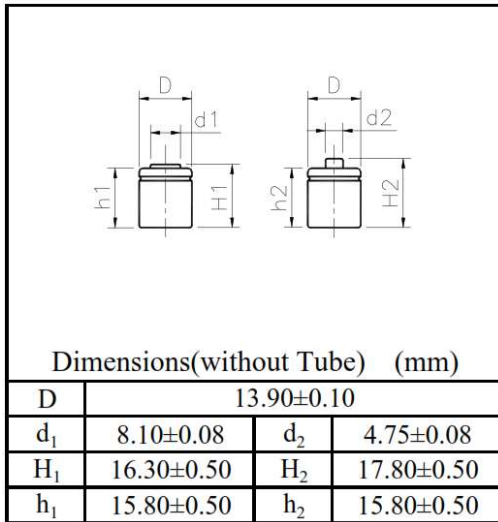
Notes:

[1] T₁: Ambient Temperature.

[2] Approximate charge time from discharged state, for reference only. [3] IEC61951-2(2003)7.4.1.1 Cycle Life:

Cycle No.	Charge	Rest	Discharge
1	0.1C×16h	None	0.25C×2h20min
2-48	0.25C×3h10min	None	0.25C×2h20min
49	0.25C×3h10min	None	0.25C to 1.0V/cell
50	0.1C×16h	1-4h	0.2C to 1.0V/cell

Cycle 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3 h.



Nominal Capacity		300 mAh	
Nominal Voltage		1.2 V	
Charge current	Standard	30 mA	
	Fast	300 mA	
Charge time	Standard	16 Hrs	
	Fast	1.2 Hrs	
Ambient Temperature	Charge	Standard	0°C~45°C
		Fast	10°C~45°C
	Discharge		-20°C~60°C
Storage		-20°C~55°C	
Internal Impedance(mΩ)		≤47	
Weight		8.0 g	

