



比亚迪股份有限公司
BYD COMPANY LIMITED

SEALED METAL HYDRIDE
RECHARGEABLE CELLS & BATTERIES
APPROVAL SHEET

TO : _____

BYD MODEL NO : H-AA1600BS

CUSTOMER APPROVED P/N : _____

DATE OF SUBMISSION : 14-Jul-11

ATTACHMENT : SPECIFICATION

TOTAL NO. OF PAGES : 5

SPECIFICATION NO : S-HAA1600BS01

VERSION NO: 1.0

Drawn	CUI-MIAO	
Approved	Customer Dept. I	<i>GUOQING-LI</i>
	Technology Dept. I	<i>ZHENGYI-HUANG</i>
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(with company chop)

Please sign and return one copy to us

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5.2 TEST METHOD & PERFORMANCE

Item	specification	Conditions and remarks
Typical Capacity	1600mAh	charge at 0.1C for 16 hours, rest for 1-4 hours, discharge at 0.2C till 1.0v, up to 3 cycles are allowed
Minimum Capacity	1500mAh	charge at 0.1C for 16 hours, rest for 1-4 hours, discharge at 0.2C till 1.0v, up to 3 cycles are allowed
Open Circuit Voltage(OCV)	$\geq 1.25V$	After 1 hour standard charge
Internal impedance	$\leq 40m\Omega$	Upon fully charge (1KHz)
C rate Capacity	≥ 48 Minutes	charge at 0.1C for 16 hours, rest for 1-4 hours, discharge at 1C till 1.0v
Overcharge	no leakage nor explosion	160 mA(0.1C) charge for 28 days
Charge Retention (20°C)	80% of Minimum Capacity	charge at 0.1C for 16 hours (<u>100% state of charge</u>), store with open circuit for 6 months at 20°C, discharge at 0.2C till 1.0v,
Leakage	no leakage nor deformation	Fully charge at 1600 mA(1C), then store for 14 days

5.3 Humidity

The cells shall not leak during the 14 days when it is submitted to the condition of a temperature of $33\pm 3^{\circ}C$ and a relative humidity of $80\pm 5\%$ (salting is allowed).

5.4 Vibration

Cells shall be mechanically and electrically normal after vibration which has an amplitude of 4mm(0.1575 inches) a frequency of 1000 cycles per minute, which should be continued in any directions during 60 minutes

5.5 Shock

Cells shall be mechanically and electrically normal after being subjected to a drop from a height of 450mm (17.716inches) onto an oak board in a voluntary axis respectively 3 times.

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5.6 Short

Cells shall not explode after 1 hour short-circuit test.

5.7 Incorrect polarity charging

Cells shall not explode after 5 hour of incorrect polarity charging at 1 CmA.

6. PRECAUTION

6.1 We recommend you to set the cut-off voltage at 1.0V/cell.

6.2 If it is below 1.0V/cell, cells may have over-discharged or reverse charged.

6.3 Do not detect $-\Delta V$ for first 5 minutes of charging.

6.4 The cells shall be delivered in charged condition, Before testing or using, the cells shall be correctly charged in accordance with this specifications.

7. WARNING

7.1 Avoid direct soldering onto cells.

7.2 Observe correct polarity when connecting.

7.3 Do not charge with more than our specified current.

7.4 Use only within the specified working temperature range.

8. DANGER!

8.1 Avoid throwing cells into a fire or attempting to disassemble them. As the electrolyte inside is strong alkaline and can damage skin and clothes.

8.2 Avoid short circuiting. It may be leakage.

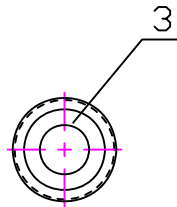
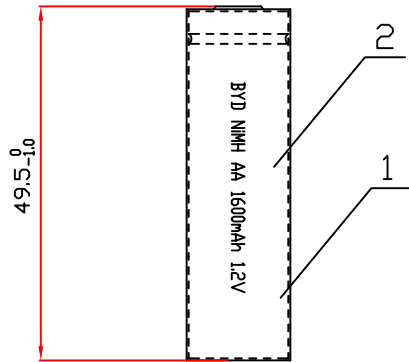
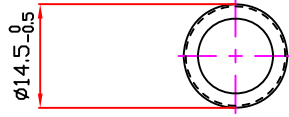
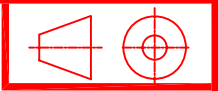
8.3 Not to be used in sealed conditions for Ni-MH cells.

9. HSF (Hazardous Substance Free)

9.1 The product can meet the HSF requirement.

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NO.	NAME	SIZE	QTY	NOTE	SAP NO
3	WASHER	AA	1	WHITE	416309
2	PVC	23X54	1	GREEN U	433885
1	CELL	AA	1	NI-MH	



比亚迪股份有限公司
BYD COMPANY LIMITED

DRAWN	CUI-MIAO	DATE	2011/07/14
CHECKD	GUOQING-LI	DATE	2011/07/14
APPROVED	JIANGUO-TANG	DATE	2011/07/14
SCALE	/	UNIT	MM