Product Specification

Customer:	
Model:	MH 4.8V B4
Prepared By:	
Checked By:	
Approved By:	
Date:	**2021-05-25**
Confirmed By:	

0.1 Range:
This specification applies to sealed nickel-hydrogen batteries and their battery packs

Model:MH 4.8V B4

02. Overview

B4x80H battery consists of 4 button Ni-MH batteries in series. Mainly used in small electrical appliances, memory, backup and other power supply.

Battery performance
Integrated electrical performance:

Project	Specification	Remarks
Battery model	B4x80H	
Nominal voltage	4.8V	
Nominal capacity	80 mAh	
Standard Charge	16 mA, 14~16h	
Fast	16mA, 6-7h	
Charge Temperature	-10~-45°C	
Discharge current	0.1C~0.2C	
Termination voltage	3.0V	
Ambient temperature	-20~-55°C	

1.2 Capacity:
1.2.1 Standard capacity
1.2.1The nominal capacity is defined as follows:
Temperature： 20±5℃
Charging： 0.1C(8mA) 16h.
On Hold： 0.5~1h
Discharge： 0.2C(16mA) -3.0V.
When the voltage drops to 3.0 V, the continuous discharge time is not less than 5 hours, and its minimum capacity is 75 mAh.
1.2.2 Capacity Test Method:
Charge and discharge according to standard charging method, cycle 3~5 times, one of the capacity can meet the requirements.

1.2.3Actual capacity:

The following table shows the minimum capacity of B4x80H 4.8V cells at 0.2 C discharge.Recharge and discharge ambient temperature :20±5℃

The battery has been precharged by 0.1 C (8mA) for 16 hours and shelved for 0.5~1 hour.

Discharge Rate	current (mA)	Termination voltage(V)	Available capacity (mAh)
0.2C	16	3.0	>75
0.5C	40	3.0	>68

1.3 1Charge retention capability

The discharge capacity of 0.2 C should not be less than 70% of the nominal capacity at a temperature of 20±5℃ for 16 hours.

1.4 Overcharge performance

When 20±5°C0, charge with 0.1C continuosly for 28 days, the battery should be free of leakage and deformation. The effective capacity (0.2C release) shall not be less than 72mAh. After overcharge test ~ shelved for 1 hour and 4 hours under 20 and 5°C.

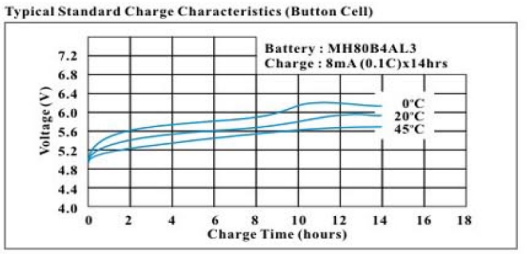
1.5 Cycle life

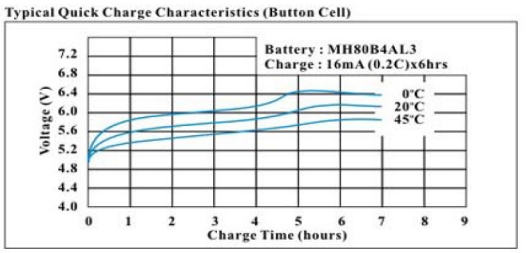
After 500 cycles of charge and discharge according to the following conditions, the battery capacity should be 60% of the nominal capacity.

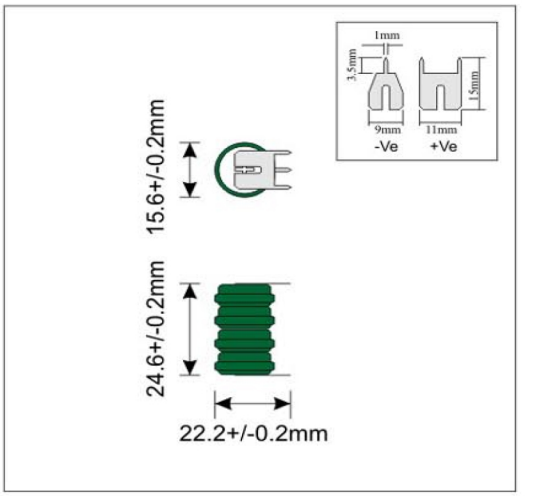
Number of cycles	Charge	Pend ing	Discharge
1	0.2 C ×7 h	h 1	0.2 C ×3 h
2~48	0.2 C ×4 h	0.5 h	0.2 C ×3 h
49	0.2 C ×4 h	0.5 h	0.2 C to 3.0V
50	0.1 C ×16 h	h 1	0.2 C to 3.0V

Repeat cycle charge and discharge 1 to 50 times until the 50th discharge time is less than 3 hours, repeat the 50th

If the discharge time is still less than 3 hours, the battery life is terminated.







2.0 Battery size

Width£ 22.4mm max ： 24. 8mm max ： Weight :14gram

3.0 Storage:

3.1 The battery should be stored in a cool place °C0~25, with a relative humidity of 65 ± 20
3.2 After 6 months of storage, it is necessary to use the standard 0.1 C current to charge and discharge the battery for 3 cycles, so that the battery can recover its fully capacity.
3.3 When stored or transported, metal objects can not be mixed with batteries to prevent accidental short circuit.

4.0 Welding of battery pack
Do not allow direct welding on the battery, battery pack, wiring must be welded on the pad.

5.0 Charging and Discharge
5.1 For the first time, the battery pack must be charged, even if the battery is in a charging state when it leaves the factory.
5.2 In general, the battery pack does not advocate fast charging. In emergency cases, attention should be paid to the following points :(1) special fast charger should be used ;(2) frequent use of fast charger, battery pack will be affected to varying degrees.(3) Fast charger requires strict control of charging time, charging voltage and surface temperature of the battery.

5.3 Do not short circuit or positive or negative reverse load in use.

5.4In the same battery pack, different kinds of batteries can not be used.
5.5 We do not advocate parallel charging and parallel use, it will produce uneven charging current and battery and battery recharge and other bad results.

6.0 Notes

6.1 Do not short circuit or reverse charge the battery.

6.2 Do not throw the battery into a heat source or fire to avoid leakage or even explosion.

6.3 Do not disassemble the battery, the electrolyte in the battery is very corrosive.

6.4 Please charge and discharge the battery according to the specified conditions.