# NICKEL METAL HYDRIDE BATTERY

## NH-30H

**BRIEF SPECIFICATION**

Model: NH-30H
Nominal Voltage: 1.2V
Nominal Capacity: 40mAh
Weight: Approx.1.8g
Manufacturer: EEMB Co., Ltd.
Website: http://eemb.com

## 1. Preface

This specification is suitable for the performance of the Ni-MH rechargeable battery produced by EEMB CO.,LTD

## 2. Model

NH-30H

## 3. Appearance

There shall be no such defects as deformation, flaw, stain, discoloration or electrolyte leakage.

## 4. Basic Specification

| Description | | Unit | Specification | Conditions |
|---|---|---|---|---|
| Nominal Voltage | | V | 1.2 | Single cell |
| Nominal Capacity | | mA | 40 | |
| Weight | | g | 1.8 | Approx. |
| Standard Charge | | mA | 4 | Ta =20℃ |
| | | hour | 14 | |
| Quick Charge | | mA | 8 | Ta =20℃ |
| | | hour | 6 | |
| Trickle Current | | mA | 1.2 | Ta =20℃ |
| Discharge Current | | mA | 8 | |
| Operation Temperature | Standard Charge | ℃ | 0 ~ 45 | Reference Only |
| | Fast Charge | | 10 ~ 45 | |
| | Trickle | | 0 ~ 45 | |
| | Discharge | | 0 ~ 45 | |
| Storage Temperature | Within 2 years | ℃ | 0 ~ +35 | Reference Only |
| | Within 6 months | | 0 ~ +45 | |
| | Within 1 week | | 0 ~ +55 | |

## 5. Characteristics

Standard testing: the test is carries out with new batteries (within a month after delivery).

Note: Any representations in this brochure concerning performance, are for informational purposes only and are not construed as warranties either expressed or implied, of future performance.

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

Standard charge: 4mA×14hours
Standard discharge: 8mA to 1.0V

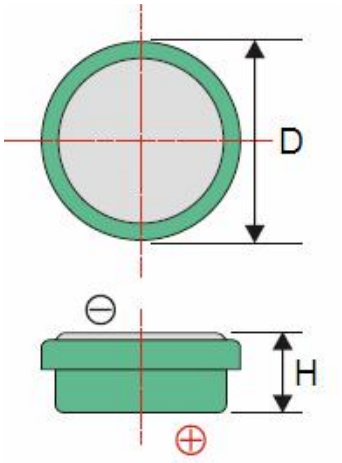
| Test | Unit | Specification | Conditions |
|---|---|---|---|
| Capacity | mAh | ≥40 | The cell shall be charged. After charging, the cell shall be stored for 1h,then the cell shall have been discharged at a constant current of 0.2C, down to a final voltage of 1.0V/cell *N. 5 cycles are permitted for this test. |
| Open Circuit Voltage (OCV) | Voltage (V) | ≥1.3 | Test within 1H after standard charge. |
| Internal Impedance | mΩ/cell | ≤2000 | Upon fully charge (1KHz). |
| High Rate Discharge (0.2C) | min | ≥60 | |
| Discharge Current | mA | 20 | |
| Charge Retention | mAh | 32 | The charged cell is stored for 28 days .And the discharge time is measured at normal discharge. |
| Cycle Life | Cycle | ≥400 | IEC/CEI61951-2(2001)4.4 |
| Leakage | | No leakage. No deformation | Fully charge at 4mA, stand 14 days. |

Note: IEC/CEI61951-2(2001)4.4 cycle life

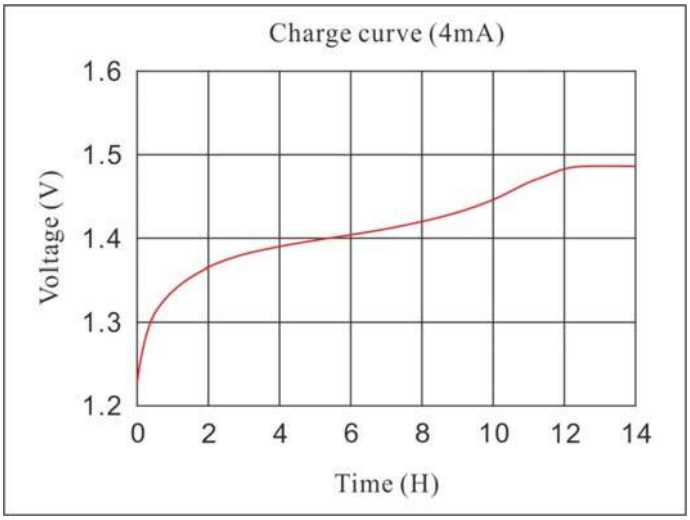
| Cycle number | Charge | Stand in charged Condition | Discharge |
|---|---|---|---|
| 1 | 0.1C for 16h | None | 0.25C × 140min |
| 2-48 | 0.25C for 3h10min | None | 0.25C × 140min |
| 49 | 0.25C for 3h10min | None | 0.25C to 1.0V/cell |
| 50 | 0.1C for 16h | 1h to 4h | 0.2C to 1.0V/cell |
| Cycles 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3h. At this stage, a repeat capacity measurement as specified for cycle 50 shall be carried out. The endurance test is considered complete when two such successive capacity cycles give a discharge duration of less than 3h. | | | |

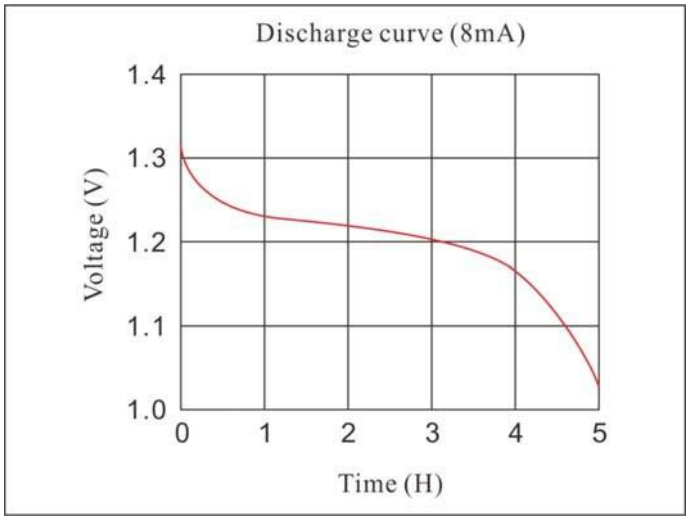
## 6. Dimensions (Unit: mm)

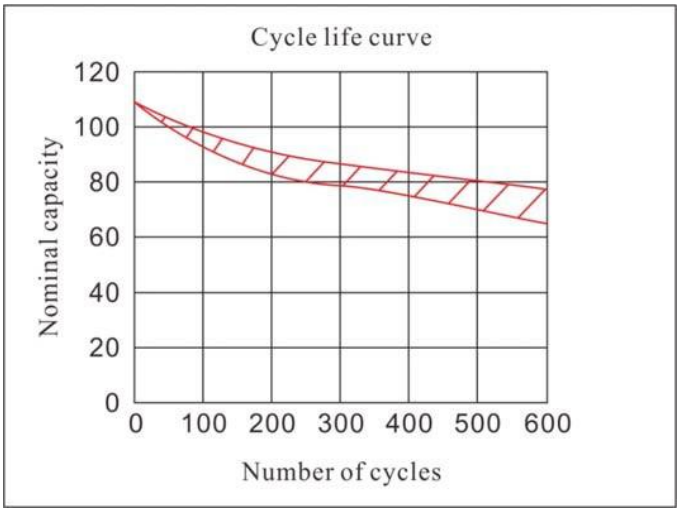
| Item | Specification |
|---|---|
| D | 11.8±0.2 |
| H | 5.3±0.2 |

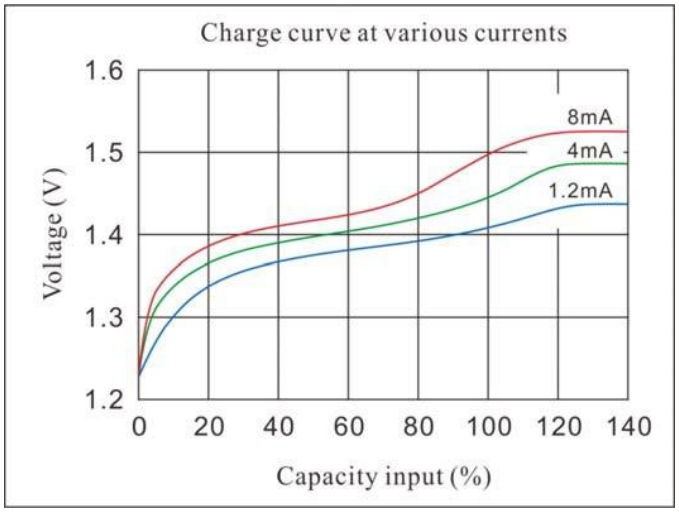



## 7. Performance

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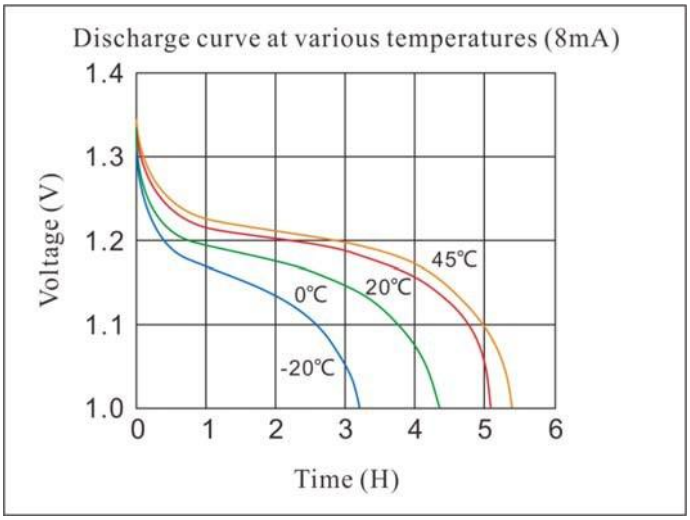


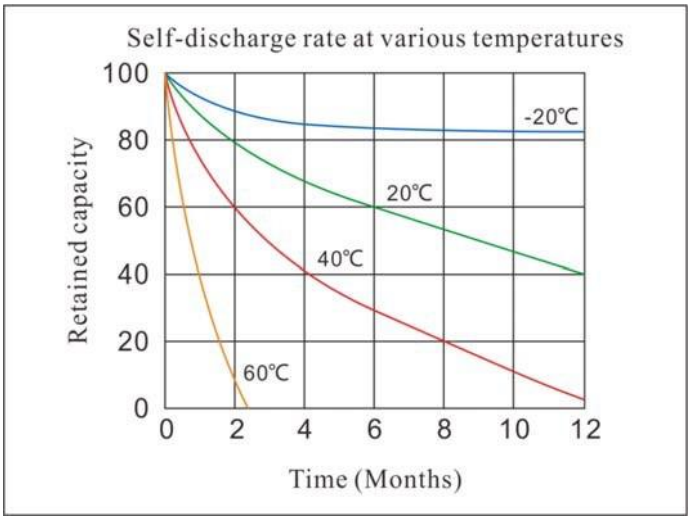


## 8. Precaution

1) Do not dispose of cell into fire or be dismantled under any condition.
2) Do not mix different cell types and capacities in the same battery assembly.
3) Short circuit leading to cell venting must be avoided.
4) Never solder onto cell directly. Cell reversal should be avoided.
5) Use batteries in extreme condition may affect the service life, such as: extreme temperature, deep cycle, extreme overcharge and over discharge.
6) Batteries should be stored in a cool dry place.
7) Up to three full cycles of charge /discharge after long-termed storage may need to obtain highest capacity.
8) Quality assurance period: 12 months.