



Great Power Battery Co. Ltd.

Excellent Quality, Prompt Delivery and Competitive Price

APPROVAL SHEET

To: _____

Model: PH-H-2/3AA700

Prepared by: _____

Checked by: _____

Approved by: _____

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GREAT POWER BATTERY CO., LTD.

1. Preface

This specification is suitable for the performance of the **GREAT POWER** Ni-MH rechargeable battery.

2. Model

PH-2/3AA700

3. Appearance

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

4. Nominal specification

| Description | | Specification | |
|--|--------------|----------------------|---------------|
| Model | | PH-2/3AA700 | |
| Size | | 2/3AA | |
| Dimensions | Diameter(mm) | 14.5+0/-0.5 | |
| | Height(mm) | 29.0+0/-1.0 | |
| | Weight(g) | Approx.14g | |
| Nominal Voltage(V) | | 1.2 | |
| Nominal capacity(mAh) | | 700 | |
| Internal Impedance(m Ω) | | ≤60 | |
| Discharge Cut-off Voltage | | 1.0V | |
| Ambient temperature | Charge | standard | 0°C to 40°C |
| | | fast | 10°C to 40°C |
| | Discharge | | -10°C to 50°C |
| | Storage | <1 year | -10°C to 30°C |
| | | <3 months | -10°C to 40°C |
| The relative humidity should keep with in 65±20% | | | |

5.Characteristics

Unless otherwise specified, the standard range of atmospheric conditions for test as follows:

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

Relative humidity $65 \pm 20\%$

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Atmospheric pressure $960 \pm 100\text{mbar}$

Accuracy of voltmeters and amperometers to be used in testing shall be equal to or better than the grade 0.5.

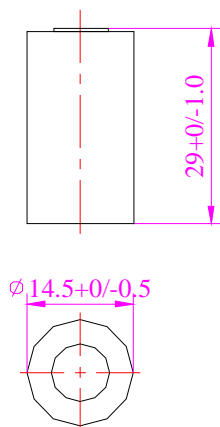
| Test item | | Condition | | Specification |
|------------------------------|-------------------|--|-------------------|--|
| 1. Charge | Standard | Charge at 0.1C for 16 hours | | |
| | Fast | Charge at 1C to $-\Delta V=5-10\text{mV}$ | | |
| 2. Discharge | | At 0.2C to 1.0V | | |
| 3. Discharge cut-off voltage | | | | 1.0V |
| 4.Capacity (mAh) | Minimun | Standard charge/discharge | | 650mAh |
| | Typical | Standard charge/discharge | | 700mAh |
| 5. Internal resistance | | After fully charge,rest 1 hour, measured at 1000Hz | | $\leq 60\text{m}\Omega$ |
| 6. Self-Discharge | | The charged battery is stored for 28 days at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$. And the discharge time is measured at standard discharge | | $\geq 180\text{minutes}$ |
| 7. High temperature test | | Store at 40°C 、 50°C 、 60°C for 2 hours then charge/discharge | | No leakage |
| 8. Low temperature test | | Store at 0°C for 2 hours then charge/discharge | | No leakage |
| 9. Short circuit test | | Short circuit after fully charge | | No explode |
| 10. Drop test | | Free fall on the concrete floor from 1 meter after fully charged | | No leakage No short-circuit |
| 11.Cycle life | Charge | Rest | Discharge | Capacity retention $\geq 60\%$ after 500cycles |
| 1 | 0.1C for 16h | 0 | 0.25C for 2h20min | |
| 2~48 | 0.25C for 3h10min | 0 | 0.25C for 2h20min | |
| 49 | 0.25C for 3h10min | 0 | 0.2C to 1.0V | |
| 50 | 0.1C for 16h | 1~4h | 0.2C to 1.0V | |

Ni-MH rechargeable cylindrical cell (Data Sheet)

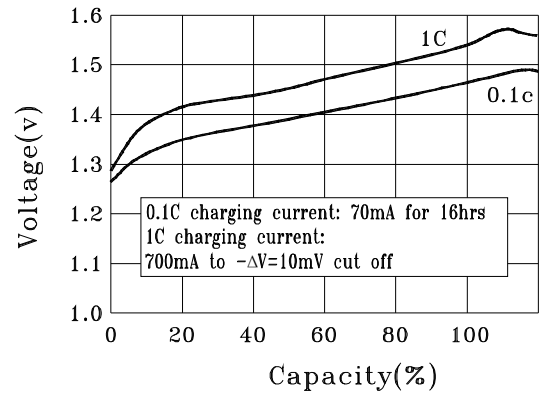
Specification

| | | | |
|----------------------------|-------------|-----------------------|---------------|
| Nominal Voltage | | 1.2V | |
| Dimensions | Diameter | 14.5+0/-0.5mm | |
| | Height | 29.0+0/-1.0mm | |
| | Apx. Weight | 14g | |
| 0.2C Discharge Capacity | Typical | 700mAh | |
| | Minimum | 650mAh | |
| Typical Internal Impedance | | Less than 60mΩ | |
| Charge | Standard | 70mA for 16 hrs | |
| | Fast | 700mA for about 75min | |
| Life expectancy | | 500 cycles | |
| Operating Temperature | Charge | Standard | 0°C to 40°C |
| | | Fast | 10°C to 40°C |
| | Discharge | | -10°C to 50°C |
| | Storage | < 1 year | -10°C to 30°C |
| < 3 months | | -10°C to 40°C | |

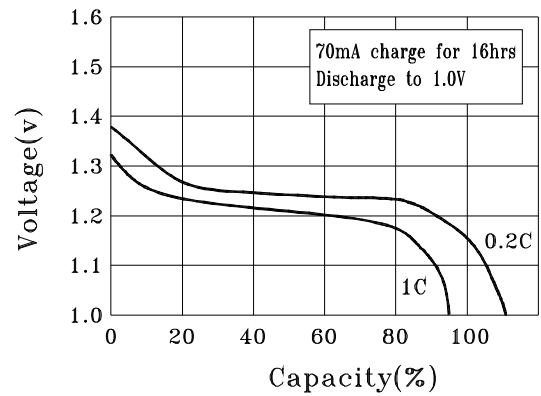
(CELL DIMENSIONS)



CHARGE CHARACTERISTICS



DISCHARGE CHARACTERISTICS



DISCHARGE CHARACTERISTICS AT DIFFERENT TEMPERATURE

