

## **Data Sheet**

# Rechargeable Nickel Metal Hydride Battery

Model: GP180AAH

## **Revision History**

| Revision | Date       | Initiator | Change Description   |
|----------|------------|-----------|--|
| 00       | 2014-5-24  | Jackie Yu | <ol> <li>New Form</li> <li>Replace the PMS2045 R1</li> </ol> |
| 01       | 2015-03-23 | Jackie Yu | Revised Page 2:     Rated capacity and typical     capacity  |
| 02       | 2015-7-30  | Jackie Yu | 1. Add charging retention                                    |

| Prepared by     | Checked by      | Approver        |
|-----------------|-----------------|-----------------|
| RD Engineer     | RD Manager      | SM              |
| SY Jiang        | Jackie Yu       | Vivian Fong     |
| Date: 2015-7-30 | Date: 2015-7-30 | Date: 2015-7-30 |

## **GPI International Limited**

Gold Peak Building, 8/F, 30 Kwai Wing Road, Kwai Chung, New Territories, Hong Kong. Tel: (852) 2484 3333 Fax: (852) 24805912

Email: <a href="mailto:gpii@goldpeak.com">gpii@goldpeak.com</a>
Website: <a href="mailto:http://www.gpbatteries.com">http://www.gpbatteries.com</a>

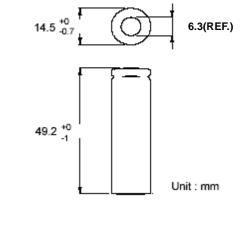
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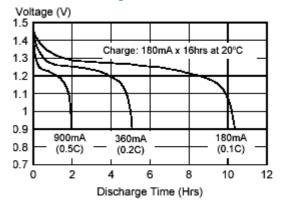
## **DATA SHEET**

|                       | T                                 |  |
|-----------------------|-----------------------------------|--|
| Type :                | Rechargeable Nickel Metal         |  |
|                       | Hydride Cylindrical Cell          |  |
|                       | $\Phi$ = 14.5mm                   |  |
| (with Sleeve)         | H = 49.2mm                        |  |
| Applications :        | Recommended discharge current     |  |
|                       | 180 to 5400mA                     |  |
| Nominal Voltage :     | 1.2V                              |  |
| Capacity :            | Rated capacity: 1800mAh           |  |
|                       | Typical capacity: 1850mAh         |  |
|                       | When discharged at 360mA to       |  |
|                       | 1.0V at 20℃                       |  |
| Charging Condition :  | 180mA for 16 hrs at 20°C          |  |
| Charging Retention    | 80% of Rated capacity after cell  |  |
|                       | storage at 20°C for 12 months     |  |
|                       | When discharged at 360mA to       |  |
|                       | 1.0V at 20℃                       |  |
| Fast Charge :         | 900mA to 1800mA (0.5 to 1C)       |  |
|                       | charge termination control        |  |
|                       | recommended control parameters:   |  |
|                       | -∆V : 0-5mV                       |  |
|                       | DT/dt : 0.8°C/min (0.5 to 0.9C)   |  |
|                       | 0.8 - 1°C/min (1C)                |  |
|                       | TCO : 45 - 50°C                   |  |
|                       | Timer : 105% nominal input        |  |
|                       | (for ref. only)                   |  |
| Service Life :        | >500 cycles (IEC standard)        |  |
| Continuous :          | 180mA maximum current for 1 year. |  |
| Overcharge            | No conspicuous deformation and/or |  |
|                       | leakage                           |  |
| Weight :              | 28.0g                             |  |
| Internal Resistance : | Average 25mΩ upon fully charged   |  |
|                       | (Max. 35mΩ) at 1000Hz             |  |
|                       | 1.5V at 180mA charging            |  |
| Ambient Temperature : | Standard Charge : 0 to 45℃        |  |
| Range                 | Fast Charging : 10 to 45°C        |  |
|                       | Discharge : -20 to 50°C           |  |
|                       | Storage : -20 to 35°C             |  |
|                       | Olorage20 to 55 C                 |  |

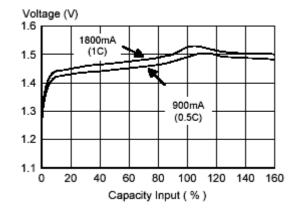
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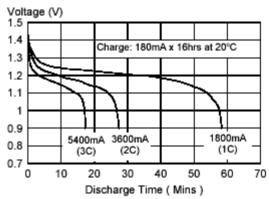
### Low Rate Discharge



## Fast Charge (Charge Control Required )



## **High Rate Discharge**



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MRS6219 rev.02

