

# GP Batteries

## Data Sheet

### Rechargeable Nickel Metal Hydride Battery

Model: GP40AAAHCB

#### Revision History

Revision	Date	Initiator	Change Description
00	2014-10-28	DT Yu	New Issue

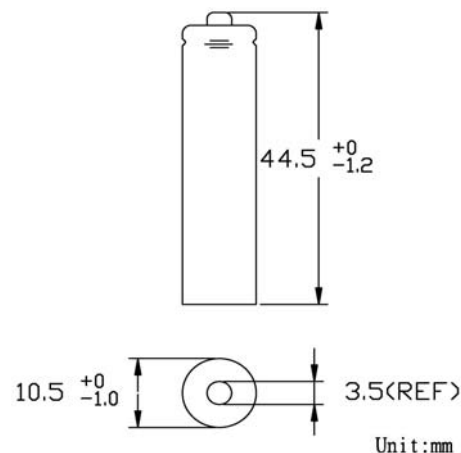
Prepared by	Checked by	Approver
RD Engineer	RD Manager	SM
DT Yu	Ling Guan	Vivian Fong
Date: 2014-10-28	Date: 2014-10-28	Date: 2014-10-28

#### **GPI International Limited**

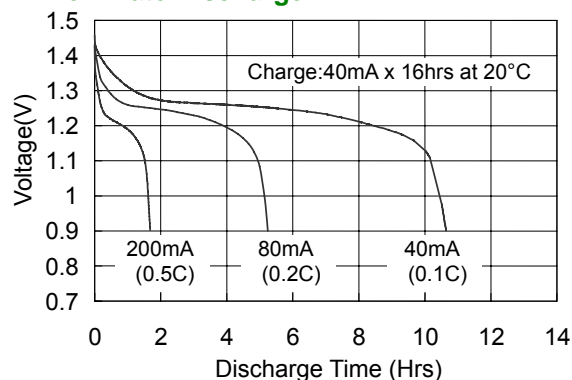
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Model No.: **GP40AAHCB**

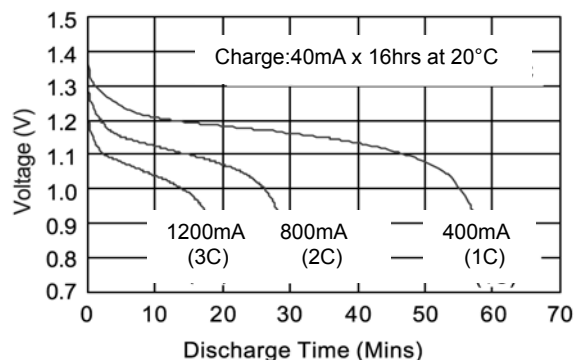
<b>Type</b>	: Rechargeable Nickel Metal Hydride Cylindrical Cell
<b>Nominal Dimension (with Sleeve)</b>	: $\Phi = 10.5\text{mm}$ H = 44.5mm
<b>Applications</b>	: Recommended discharge current 40 to 1200mA
<b>Nominal Voltage</b>	: 1.2V
<b>Capacity</b>	: Nominal: 400mAh Minimum: 400mAh Typical: 420mAh When discharged at 80mA to 1.0V at 20°C
<b>Charging Condition</b>	: 40mA for 16 hrs at 20°C
<b>Charging Retention</b>	: 80% of nominal capacity after cell storage at 20°C for 24months When discharged at 80mA to 1.0V at 20°C
<b>Fast Charge</b>	: 200mA to 400mA (0.5 to 1C) charge termination control recommended control parameters: - $\Delta V$ : 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)
<b>Service Life</b>	: >500 cycles (IEC standard)
<b>Continuous Overcharge</b>	: 40mA maximum current for 1 year No conspicuous deformation and/or leakage
<b>Weight</b>	: 11.5g
<b>Internal Resistance</b>	: Average 55m $\Omega$ upon fully charged (Range 35- 75m $\Omega$ ) at 1000Hz
<b>Max. Charging Voltage</b>	: 1.5V at 40mA charging
<b>Ambient Temperature Range</b>	: Standard Charge : 0 to 45°C Fast Charging : 10 to 45°C Discharge : -20 to 50°C Storage : -20 to 35°C



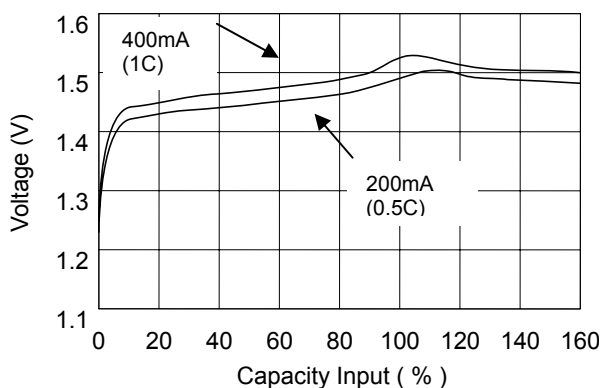
### Low Rate Discharge



### High Rate Discharge



### Fast Charge (Charge control required)



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