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## 1. Preface

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

## 2. Model

H-4/3A3800

## 3. Appearance

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

## 4. Nominal specification

Desription			Specification		
Model			PH-4/3A3800		
Size			4/3A		
Dimensions	Diameter(mm)		17.0+0/-0.5		
	Height(mm)		67.0+0/-1.0		
	Weight(g)		Approx.50g		
Nominal Voltage(V)			1.2		
Typical capacity(mAh)			3800		
Nominal capacity(mAh)			3700		
Internal Impedance(m $\Omega$ )			$\leq$ 28		
Discharge Cut-off Voltage			1.0V		
Ambient temperature	Charge	standard	0℃ to 40℃		
		fast	10℃ to 40℃		
	Discharge		-10℃ to 50℃		
	Storage	<1 year	-10℃ to 30℃		
		<3 months	-10℃ to 40℃		
		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  $65 \pm 20\%$

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

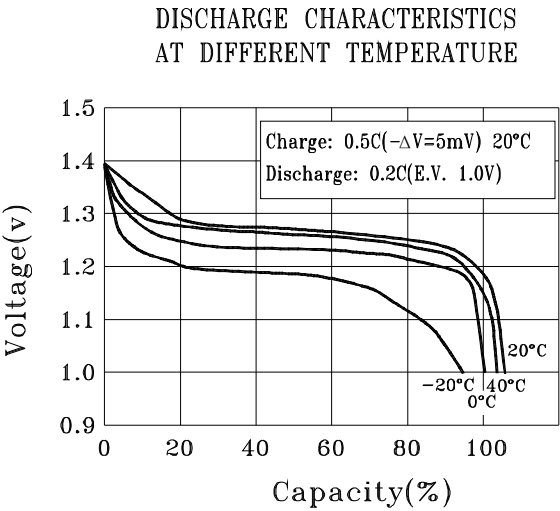
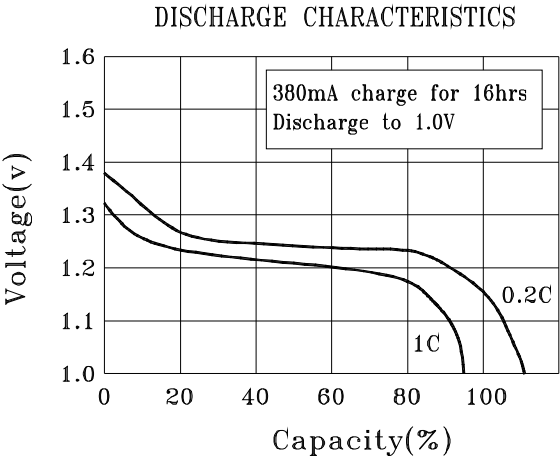
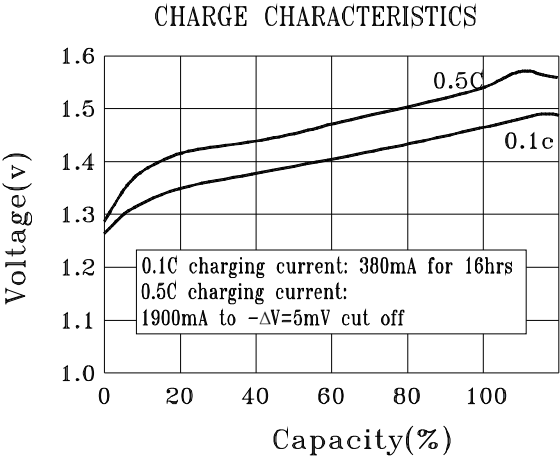
Accuracy of voltmeters and amperometers to be used in testing shall be equal to or better than the grade 0.5.

Test item		Condition		Specification
1. Charge	Standard	Charge at 0.1C for 16 hours		
	Fast	Charge at 0.5C to $-\Delta V=0-5\text{mV}$		
2. Discharge		At 0.2C to 1.0V		
3. Discharge cut-off voltage				1.0V
4.Capacity (mAh)	Nominal	Standard charge/discharge		3700mAh
	Typical	Standard charge/discharge		3800mAh
5. Internal resistance		After fully charge, rest 1 hour, measured at 1000Hz, AC.		$\leq 28\text{m}\Omega$
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 $40^{\circ}\text{C}$ 、 $50^{\circ}\text{C}$ 、 $60^{\circ}\text{C}$ for 2 hours then charge/discharge		No leakage
8. Low temperature test		Store at $0^{\circ}\text{C}$ 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	

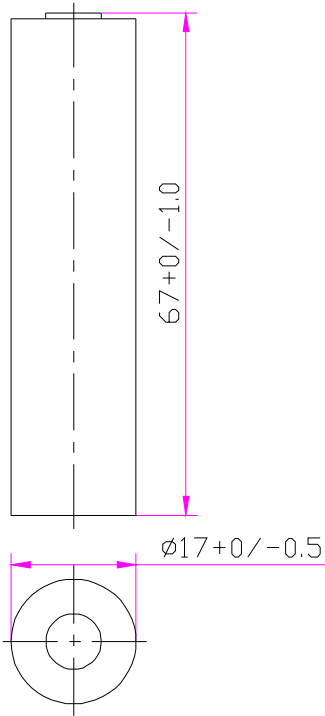
Ni-MH rechargeable cylindrical cell (Data Sheet)

Specification

Nominal Voltage			1.2V
Dimensions	Diameter		17.0+0/-0.5mm
	Height		67.0+0/-1.0mm
	Apx. Weight		50g
0.2C Discharge Capacity		Typical	3800mAh
		Minimum	3700mAh
Typical Internal Impedance			Less than 28mΩ
Charge		Standard	380mA for 16 hrs
		Fast	1900mA for about 144min (-ΔV=5mV)
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)



(With tube)

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