

PH-C4500H NiMH 4500mAh

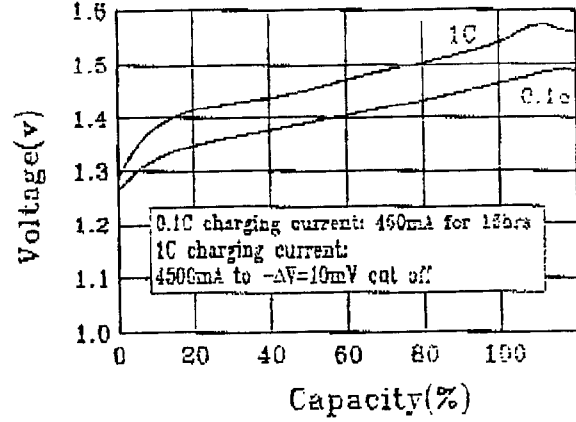
NiMH C 4500mAh

Ni-MH rechargeable cylindrical cell (Data Sheet) 4500mAh

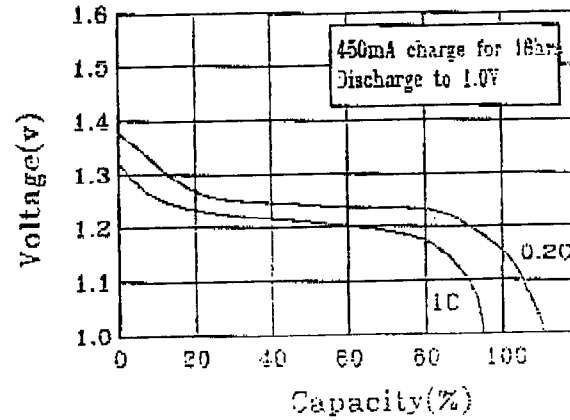
Specification

Nominal Voltage		1.2V	
Dimensions	Diameter	25.2±0.2mm	
	Height	50.0±0.3mm	
	Apx. Weight	80g	
0.2C Discharge Capacity	Typical	4550mAh	
	Nominal	4500mAh	
Typical Internal Impedance		Less than 15mΩ	
Charge	Standard	450mA for 16 hrs	
	Fast	4500mA 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	

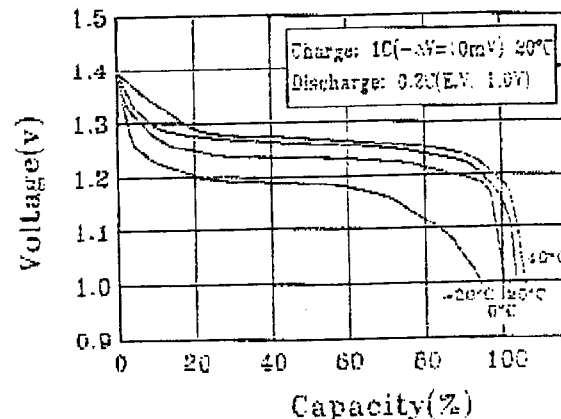
CHARGE CHARACTERISTICS



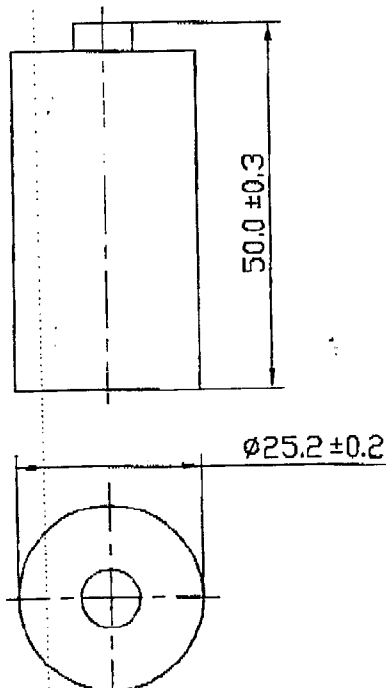
DISCHARGE CHARACTERISTICS



DISCHARGE CHARACTERISTICS AT DIFFERENT TEMPERATURE



(CELL DIMENSIONS)



## 1. Preface

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

## 2. Model

PH-C4500H

## 3. Appearance

There shall be no such defects as discoloration, electrolyte leakage or no voltage.

## 4. Nominal specification

Description		Specification	
Model		PH-C4500H	
Size		C	
Dimensions	Diameter(mm)	$25.2 \pm 0.2$	
	Height(mm)	$50.0 \pm 0.3$	
	Weight(g)	Approx.80g	
Nominal Voltage(V)		1.2	
Internal Impedance(m $\Omega$ )		$\leq 15$	
Discharge Cut-off Voltage		1.0V	
Ambient temperature	Charge	standard	0°C to 40°C
		Rapid	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

## 5.Characteristics

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

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

Relative Humidity  $65 \pm 20\%$

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

Voltmeters and ammeters to be used in test shall be of grade 0.5 over.

Test Item		Condition	Specification
1. Charge	Standard	Charge at 0.1C for 16 hours	
	Rapid	Charge at 1C to $\Delta = 10\text{mV/cell}$	
2. Standard Discharge		At 0.2C to 1.0V/cell	
3. Discharge Cut-off Voltage			1.0V
4. Capacity	Nominal	Standard Charge/Discharge	4500mAh
	Typical	Standard Charge/Discharge	4550mAh
5. Internal resistance		After fully charge, rest 1 hour, measured at 1000Hz	$\leq 15\text{m}\Omega$
6. Cycle life		Standard charge then rest 1 hour, discharge(1C) to 1.0V/cell, rest 30min after discharge	Capacity Retention $\geq 80\%$ After 500 cycles
7. 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	$\geq 180\text{minutes}$
8. 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
9. Low Temperature Test		Store at $0^\circ\text{C}$ for 2 hours then Charge/Discharge	No leakage
10. Short Circuit Test		Short circuit after fully charge	No explode
11. Drop Test		Free fall on the concrete from 3 meters after fully charged	No leakage No short-circuit