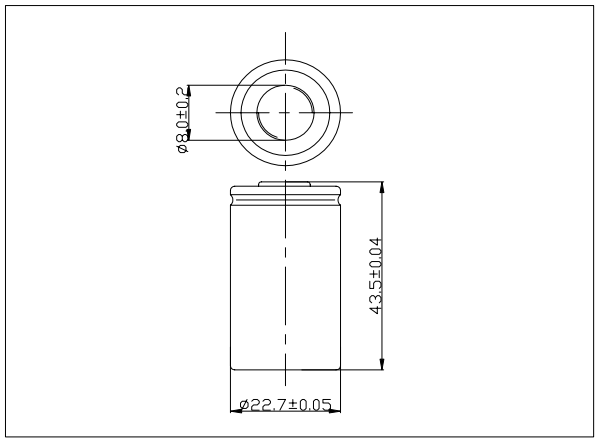
TYPE：UP-SC3600mAh (Flat)

Specifications

Nominal voltage		**1.2V**	
Capacity		**0.2C Discharge**	**30A Discharge**
	Minimum	3600mAh	3400mAh
	Typical	3800mAh	3500mAh
Dimensions		**mm**	**inch**
	Diameter	$22.7^{\pm0.05}$	$0.89^{\pm0.002}$
	Height	$43.5^{\pm0.4}$	$1.71^{\pm0.016}$
Weight(Approximately)		**Grams**	**Ounces**
		67	2.36
Internal Impedance At 1000 Hz		**3mΩ(Max)（After Charge）**	
Charge	**Standard**	360mA(0.1C)x15hrs	
	Rapid	3600mA(1.0C)x1.13hrs	
Ambient temperature		℃	℉
Charge	**standard**	0℃ to 45℃	32℉ to 113℉
	Rapid	10℃ to 40℃	50℉ to 104℉
Discharge		-20℃ to 65℃	-4℉ to 149℉
storage		-20℃ to 45℃	-4℉ to 113℉

Dimensions (mm)

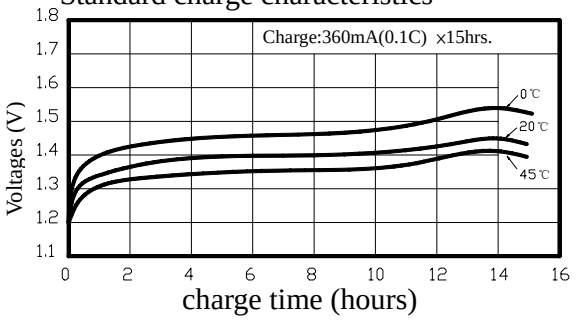


Note:

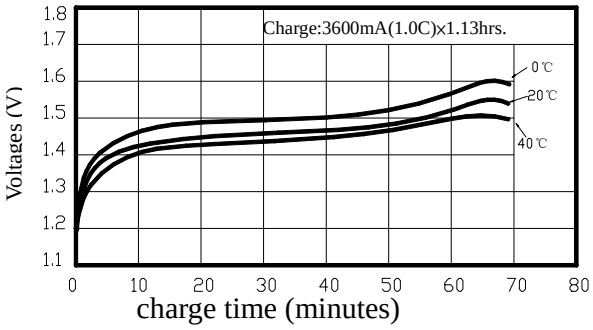
1. After charging at 0.1C for 15hours.
2. Nominal capacity, rated at 0.2C 20℃.
3. Average capacity, for reference only.
4. Weight and internal impedance are for reference.
5. Standard according as IEC of test cycle life。

Typical characteristics

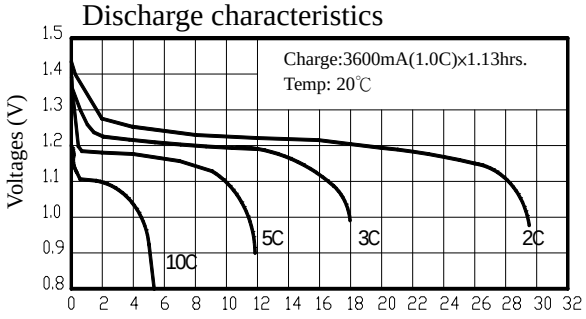
Standard charge characteristics



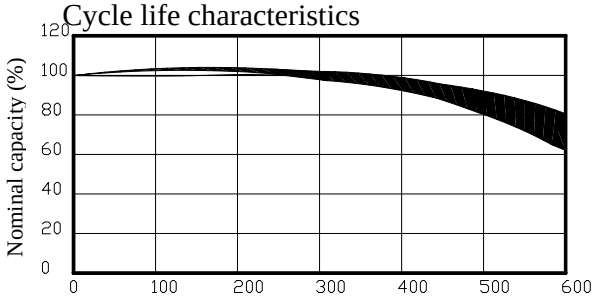
Rapid charge characteristics



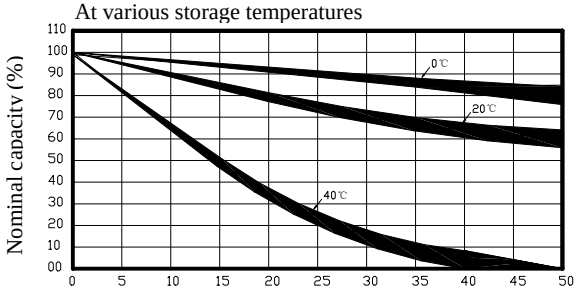
Discharge characteristics



Cycle life characteristics



Charge retention curves of Ni-MH cylindrical cell
At various storage temperatures



1. PREFACE

The specification is suitable for the performance of NI-MH rechargeable battery produced by the SHENZHEN GREPOWBATTERY Co., Ltd.

2. MODEL

Ni-MH　UP-SC3600（Flat） 1.2V

3. APPEARANCE

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

4. NORMNAL SPECIFICATION

Description			Specification	
Model			Ni-MH　SC3600（Flat） 1.2V	
Dimension	Diameter (mm)		$22.7^{\pm 0.05}$	
	Height (mm)		$43.4^{\pm 0.4}$	
	Weight (g)		Approx 67	
Normal Voltage (V)			1.2V	
Capacity (mAh)			0.2C Discharge	30A Discharge
	Minimum		3600mAh	3400mAh
	Typical		3800mAh	3500mAh
Monomer Internal Impedance(mΩ)			≤3 mΩ	
Charge	Standard		360mA(0.1C) x15 hrs	
	Rapid		3600mA (1.0C) x1.13hrs	
Application(Discharge current)			3.3-30A(Continuous)	
			58A Momentary	
Discharge Cut-off Voltage			0.8V(30A Discharge)	
Ambient Temperature	Charge	Standard	0℃-45℃	
		Rapid	10℃-40℃	
	Discharge		-20℃-65℃	
	Storage		-20℃-45℃	

5. CHARACTERICS

Unless other specified the standard range of atmospheric condition for marketing and is as follows:

Ambient temperature: 20℃±5℃

Relative Humidity: 65±20%

Atmospheric pressure: 960±100mbar

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

Test item		**Condition**	**Specification**
Charge	Standard	Charge at 360mA(0.1C) for 15 to 16 hours	
	Rapid	Charge at 3600mA(1.0C) to –△V=10mV/cell	
Standard discharge		At 720mA(0.2C) to 1.0V	Note: Discharge to 1.0V
Capacity	Minimum	Standard charge/discharge	3600mAh
	Typical	Standard charge/discharge	3800mAh
Monomer Internal resistance		After fully charged, rest one hour, measured at 1000Hz	≤3mΩ(Charge after)
Cycle life		Standard according as IEC 61436 4.4 of test cycle life	≥500 cycles
Self-discharge		The charged battery is stored for 30 days at 20℃ and the discharge time is measured at stand discharge.	≥180 minutes
High temperature test		Stored at 40℃, 50℃, 60℃ for charge and discharge.	No leakage
Low temperature test.		Store at 0℃ for 2hours then charge or discharge	No leakage
Short circuit test		Short circuit after fully charged	No explode
Drop test		Free fall on the concrete from 3 months after fully charged	No leakage No short -circuit

6. PRECANTIONS TO ENSURE THE SAFETY ON BANDING BATTERY

We will not take on any responsibility for any trouble caused by the actions in the mishandling of the battery as mentioned below.

a) USE OF BATTERY FOR OTHER PURPOSES

Don't use batteries for appliance for which it was not intended. Difference is specification can lead to damage to the battery or appliance.

b) SHORT – SIRCUITING

Never short-circuit the batteries, that may damager appliances or you may be burned by the heat generated by the batteries.

c) THROWING BATTERY INTO FIRE OR WATER

Never throw battery into a fire. Batteries may exploded when disposed of in a fire. Never throw them into water since the battery function will be lost

d) SOLDERING

Never solder to a battery directly since its safety mechanism may be destroyed by the damage sustained on the safety vent inside the battery cap.

e) INSERTING THE BATTERY WITH THEIR POLARITIES REVERED

Never insert a battery with the positive and negative poles reversed, as this can cause the battery to swell or rupture.

f) OVERCHARGING AT HIGH CUREENTS AND REVERSE CHARGING

i. Never reverse charge or overcharge with high current. Doing so causes rapid gas generation and increase gas pressure, thus causing batteries to swell or rupture.

ii. Charging with an unspecified charge or specified charge that has been modifies can cause batteries to swell or rupture. Be sure to indicate this safety warning clearly in all operating instruction as a handling restricting for ensuring safety

g) INSTALLATION IN A SEALED APPLIANCE

Do not install batteries in a sealed that may run a risk of giving off gases. (oxygen, hydrogen)

And there is a dangerous of the batteries bursting or exploding due to the pressure ignition resource (such as motor switch).

h) DISASSEMBLY OR MUTILATION

Never disassemble batteries, as the batteries may be short-circuit or the strong alkaline electrolyte inside may hurt skin and cloths, the alkaline electrolyte inside may catch fire by reaction with air, too.0

i) USING OLD AND NEW BATTERIES TOGHETHER

i. Avoiding using old and new batteries together, also avoid using these batteries with ordinary dry cell, NI-MH, battery or with another manufacture's battery.

Differences in various characteristics value, etc., can cause damage to batteries or the

production.

Append:

IEC-61436©CEI:1998

4.4 Endurance in cycles

Before the endurance in cycles test, the cell shall be discharged at 0.2 C_5A to a final voltage of 1.0V.

The following endurance test shall then be carricd out, irrespective of cell designation, in an ambient temperature of 20℃±5℃.Charge and discharge shall be carried out at constant current throughout, using the conditions specified in table 5.Precautions shall be taken to prevent the cell-case temperature from rising above 35℃ during the test, by providing a forced air draught if necessary.

NOTE-Actual cell temperature, not the ambient temperature, determines cell performance.

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Table 5-Endurance in cycles

Cycle number	Charge	Stand in Charged condition	Discharge
1 2 to 48 49 50	0.1C_5A for 16 h 0.25 C_5A for 3 h 10 min 0.25 C_5A for 3 h 10 min 0.1 C_5A for 16 h	None None None 1h to 4h	0.25 C_5A for 2 h 20 min[2)] 0.25 C_5A for 2 h 20 min[2)] 0.25 C_5A to 1.0V 0.2C_5A to 1.0V[1)]
It is permissible to allow sufficient open-circuit rest time after the completion of discharge at cycle 50,so as to start cycle 51 at an exact two-week internal. A similar procedure may be adopted at cycles 100,150,200,250,300,350,400and 450. If cell discharge voltage drops below 1.0V,discharge may be discontinued.			

Cycles 1 to 50 shall be repeated until the discharge duration on any 50th cycle becomes less than 3h At this stage, A further cycle as specified for cycle 50 shall be carried out.

The endurance test is considered complete when two such successive cycles give a discharge duration less than 3h.The number of cycles obtained when the test is completed shall be not less than 500.