Cod. 491462084

Product Specification

Customer	
Model	C 3700
Prepared by	
Checked by	
Approved by	
Date	2021-01-25
Confirmed by	

1.SCOPE

This specification is applied to the reference battery in this Specification and manufactured by Shenzhen Unitech Battery Limited.

2.BATERY MODEL

CJ 3700 mAh

3.EXTERNAL APPEARANCE

The cell / battery shall be free from cracks, scars, breakage, rust, discoloration, leakage and deformation.

4.RATINGS

Item	Unit	Specification	Conditions
Nominal Voltage	V	1.2	Cell unit
Nominal Capacity	mAh	3700	Standard charge/discharge
Minimum Capacity	mAh	3700	
Standard charge	mA	370（0.1C）	Ta=20± 5°C
	hour	16	
Quick Charge	mA	1850（0.5C）	Ambient Temperature Ta=10-40°C -Δ V=5mV/cell
	hour	2.4	
Trickle charge	mA	0.02C-0.05C	Ta=0-40°C
Standard discharge	mA	740（0.2C）	Ta=20± 5°C Humidity 65±20% Discharge by 0.2C to 1.0V/cell 0.2C 1.0V
Maximum Discharge Current	mA	3700(1C)	Ta=-20～60°C；1.0V/ cell cut off 1.0V
Storage temperature	℃	-20~25℃ within 1 year -20~35℃ within 6 month -20~45℃ within 1 month -20~55℃ within 1 week	Relative humidity：65±20%
Weight	g	Approx75.0	Cell unit

5. PERFORMANCE

Unless otherwise stated, tests should be done within one month of delivery under the following conditions:

Ambient Temperature: 20±5°C Relative Humidity: 65±20%RH

Notes: Standard Charge/Discharge Condition/

Charge: 370mA (0.1C) ×16 hrs Discharge: 740mA(0.2C) to 1.0V/ Cell

Open circuit voltage	V	≥1.25	Within 1 hr after standard charge	Cell unit
Internal impedance	mΩ	≤18	Within 1 hr after standard charge	Cell unit
Discharge (0.2C)	Minute	≥300	Standard Charge , 1hr rest before discharge	Allow to 3 cycle
Discharge (0.5C)	Minute	≥112	Standard Charge , 1hr rest before discharge	Allow to 3 cycle
High Rate Discharge (1C)	Minute	≥51	Standard Charge , 1hr rest before discharge	Allow to 3 cycle
Overcharge	N/A	No leakage nor Deformation	0.1C charge for 48 hrs	
Charge retention	mAh	≥2220 (60%)	Standard charge Storage: 28 days at Ambient Temperature or 7 days at 45°C Standard discharge	
IEC Cycles Life Test IEC	Cycle	≥500	IEC 61951-2（2011）/7.5.1.2	(see note 1)

Short Circuit	N/A	Leakage&deformation may occur, but no explosion is allowed	After standard charge., short circuit the cell at 20±5°C until the cell temperature returns to ambient temperature. (The resistance of the inter- connecting circuitry shall not exceed 0.1Ω.)	Ta=20±5°C
Vibration Resistance	N/A	Change of voltage: <0.02 V/cell change of internal <5 mΩ/cell	Charge at 0.1C for 16hrs and then leave for 24hrs check battery before after vibration Amplitude: 1.5mm Vibration:3000CPM (any direction for 60mins)	
Impact Resistance	N/A	Change of voltage: <0.02 V/cell change of internal <5 mΩ/cell	Charge at 0.1C for 16hrs and then leave for 24hrs check battery before/ after drop Height: 100cm Thickness of the wooden board: 30mm Direction is not specified Test for 3 times	
Leakage		No leakage nor deformation	Standard charge stand for 14 days	
Safety		No disrupt or burst, explosion, but leakage of electrolyte and deformation are aceeptable	The battery shall undergo a forced discharge in an ambient temperature of 20±5°C,at a constant current of 0.2ItA,to a final voltage of 0V.the current shall then bi increased to 1.0ItA and the fored discharge continued in the same ambient temperature of 20±5°C ,for 60 min	Ta=20±5°C

Notes

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Cycle No	Charge	Rest	Discharge
1	0.1C, 16h	None	0.25 C,2h 20min
2 - 48	0.25 C，3h 10min	None	0.25 C,2h 20min
49	0.25 C，3h 10min	None	0.25 C to 1.0V/cell
50	0.1 C，16h	1h-4h	0.2 C to 1.0V/cell
Cycle 1 to 50 shall be repeated until the discharges duration on any 50th cycle becomes less than 3hrs			

2、EXTERNAL APPEARANCE

The cell / battery shall be free from cracks, scars, breakage, rust, discoloration, leakage and deformation.

3、WARRANTY

One year limited warranty against workmanship and material defects.

4. ELECTRICITY RETAINS

Normal conditions with electricity retain 50%, if have special demands, confirm after negotiate

5、WARNING

5.1 Do not reverse charge batteries

5.2 Do not short circuit batteries, permanent damage to batteries may result

5.3 Do not subject batteries to adverse condition such as extreme temperature, deep cycling and excessive.

5.4 Store batteries in a cool dry place. Always discharge batteries before bulk storage or shipment.

5.5 Do not solder directly to cells or batterie

5.6 If find any noise, excessive temperature or leakage from a battery, please stop its use.

5.7 Do not incinerate or mutilates batteries, may burst or release toxic material.

5.8 Do not mix new batteries in use with semi-used batteries, over-discharge may occur.

5.9 Do not remove the outer sleeve from a battery pack nor cut into its housing

5.10 Never put a battery into water or seawater.

6、CAUTION/

6.1 Batteries should be charged prior to use.

6.2 For charging methods please referred to our technical handbook.

6.3 Use the correct charger for Ni-MH batteries.

6.4 Avoid batteries being used in an airtight compartment. Ventilation should be provided inside the battery compartment, otherwise batteries may generate hydrogen gas, which could cause an explosion if exposed to an ignition source.

6.5 Do not attempt to take batteries apart or subject them to pressure or impact. Heat may be generated or fire may result. The alkaline electrolyte is harmful to eyes and skin, and it may damage clothing upon contact.

6.6 Keep away from children. If swallowed, contact a physician at once.

6.7 When using a new battery for the first time or after long term storage, please fully charge the battery before use.

6.8 When using a new battery in use with semi-used batteries, over-discharge may occur.

6.9 When the battery is hot, please do not touch it and handle it, until it has cooled down.

6.10 When find battery power down during use, please switch off the device to avoid over discharge.

6.11 Unplug a battery by holding the connector itself and not by pulling at its cord.

6.12 After use, if the battery is hot. Before recharging it, allow it to cool in a well-ventilated place out of direct sunlight.

7、STORAGE

7.1 In order to ensure the battery to maintain the capacity level, we suggest Ni-MH battery and battery pack should be stored under the condition of the -20 ~ 35°C , low humidity, no corrosive gases.

7.2 Ni-MH battery to avoid the high temperature or high humidity storage, otherwise it would lead to the battery leakage, rust, and the lower capacity.

7.3 The long-term storage may lead to NIMH batteries and battery packs to reduce the capacity and need 1-3 charge / discharge cycles to reach the maximum discharge capacity.

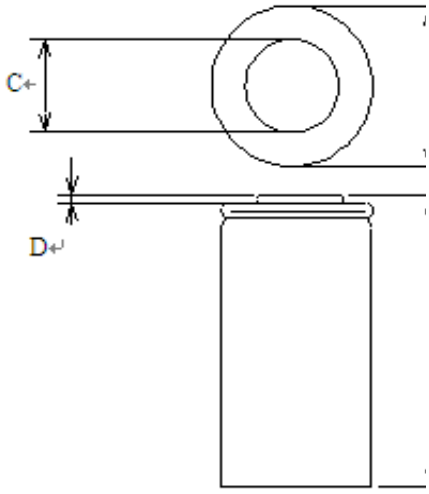
7.4 Three months after placing the battery need to be charge/discharge for one cycle.

Type: Rechargeable Nickel Metal Hydride Cylindrical Cell

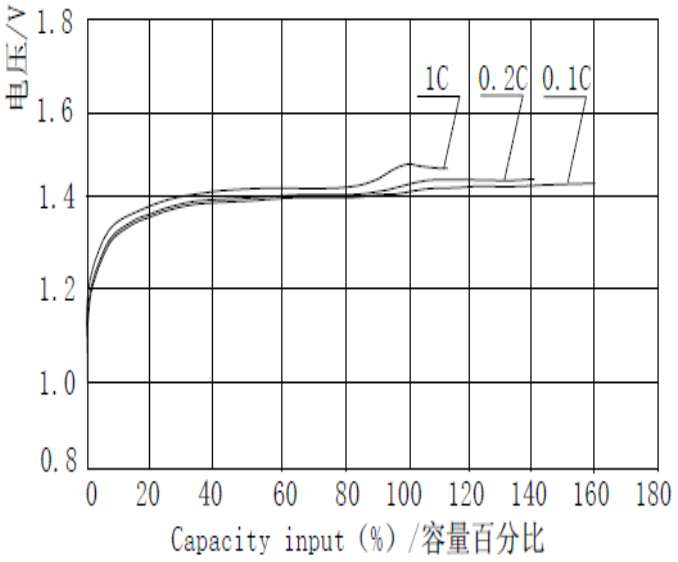
Specification of single cell

Nominal Voltage		1.2V
Internal Resistance		≤18mΩ
Capacity	Nominal	3700mAh
	Minimum	3700 mAh
Weight		About 75.0g
Charge	Standard	0.1C
	Fast	0.5C ～1C
Temperature Recommended (°C)	Standard charge	±20 5°C
	Fast charge	10～40°C
	Discharge	-20～60°C
	Storage	-20～35°C
Dimensions with tube	A：Diameter	25.8 (+0/-1.0) mm
	B：Height	50. (+0/-1.5) mm
	C：Top diameter	8.0mm
	D：Top height	≥ 1.85 mm
Overcharge	0.1C for 48 hrs	

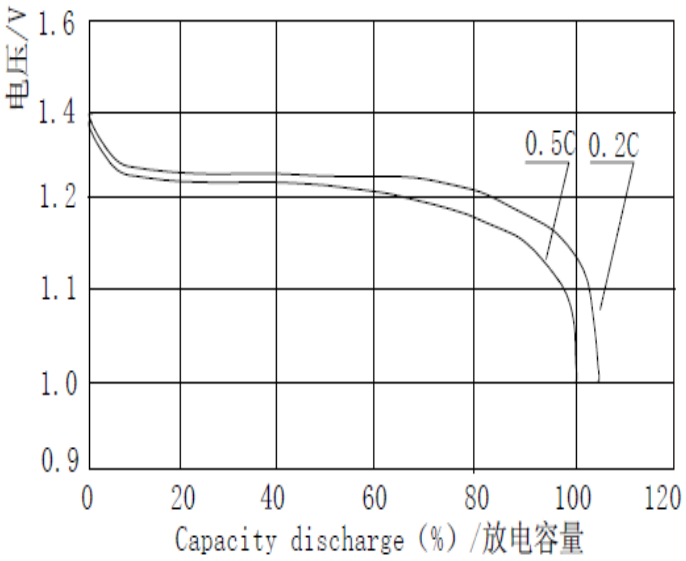
Drawing



Charge curve/充电曲线



Low rate discharge/低倍率放电



High rate discharge/高倍率放电