

SPECIFICATIONS

Model:GH-3609

1. Type and Model

A.Type:

Li-ion battery pack (LiNiCoMnO₂)

B.Model:

GH-3609

2. Basic Characteristics

Nominal Voltage	36 V		
Limited charge voltage	42.0±0.2 V		
Initial impedance	≤ 260 mΩ		
Capacity(Ah)	0.2 C discharge		
	Nominal Capacity	9Ah	
Max.discharge current	20A		
Charge method	Standard(CC/CV)	2A×8h	
Weight	2.70Kg		
Overcharge protive voltage(V)	4.20±0.01V(cell)	Overcurrent protive value(A)	80A
Overdischarge protive voltage(V)	2.70±0.10V(cell)		
Temperature & Humidity	0~45°C, 45-85%RH (Charging) -20~60°C, 45-85%RH (Discharging)		

Storage conditions	-5~35℃, 45-85%RH (within 6 months) -5~40℃, 45-85%RH (within 3 months) -10~45℃, 45-85%RH (within 1 month) -10~50℃, 45-85%RH (within 1 week)
Shipping Voltage	38.5-40.0 V

3. Electrical characteristic

No.	Item	Typical	Test Method								
1	Full charge		Charge battery with the special charger, until one light on the charger change from red to green .								
2	Nominal capacity	9 Ah	Make the fully charged battery at 20±5℃ rest for 0.5~1 hour. Discharge with 1.8A until voltage getting to 27.0V. Five cycles can be made. It can be stopped if discharge time gets to 5 hours in one case.								
3	Cycle life (25℃)	Discharge capacity≥5.4Ah	Discharge the battery with constant current 4.5A until 27.0V. then full charge the battery. Discharge the battery with constant current 4.5A until 27.0V. 10 minutes rest and go on the next cycle. 800 cycles altogether.								
4	Impedance	Initial:≤260mΩ	Measured with a AC impedance meter of 1 KHz at room temperature 20±5℃ after fully charged.								
5	Temperature dependence	The ratio of discharge capacity to nominal capacity shall be more than the value listed on the right.	Discharge the battery with constant current 1.8A(0.2C) until 27.0V after 8 hours' stay on the conditions below.								
			<table border="1"> <tr> <td>-10℃</td> <td>0℃</td> <td>20℃</td> <td>55℃</td> </tr> <tr> <td>60%</td> <td>80%</td> <td>100%</td> <td>98%</td> </tr> </table>	-10℃	0℃	20℃	55℃	60%	80%	100%	98%
			-10℃	0℃	20℃	55℃					
60%	80%	100%	98%								
6	Capacity retention	Discharge time ≥4h	30 days' stay under the condition 20±5℃ after fully charged, then discharge with 1.8A until 27.0V.								

		Discharge time \geq 3.5h	7 days' stay under the condition 60 \pm 2 $^{\circ}$ C after fully charged, then discharge with 1.8A until 27.0V.
7	Delivery voltage	38.5-40.0 V	Inspection before shipment

4. Standard Test Surroundings

Temperature: 20 \pm 5 $^{\circ}$ C

Relative Humidity: 65 \pm 20% (unless with other requirement)

5. Standard Test Conditions

5.1 Test Conditions

5.1.1 Test shall be done within 2 weeks after delivery.

5.1.2 Battery for test shall not be charged and discharged in advance.

5.2 Test Device

5.2.1 Voltmeter: Accuracy \pm 5mV or better, inner impedance 10K Ω /v or higher.

5.2.2 Ampere meter: Accuracy \pm 5mV or better,

Resistance (including the meter and external wire) less than 10m Ω

5.2.3 Vernier calliper: Accuracy \pm 1mm or better

5.2.4 Inner impedance meter: 1KHz sine wave, AC, 4 terminals

5.2.5 Balance: Accuracy \pm 5g or better

5.2.6 Test Instrument: Accuracy \pm 5mV, \pm 5mA or better

6. Declaration on Responsibility

You must obey the specifications manual while using the battery. The manufacturer disclaim all responsibility for damage cause by misuse.

7. Operation Description

7.1 The order of charging battery: please connect battery to charger and then to power.

7.2 The temperature will rise while charging and the rating lower than 50 $^{\circ}$ C is normal.

7.3 In order to assure long cycle life,the battery should be charged a little longer to balance the capacity of cells when the lamp of charger shows green.

7.4 Don't worry if the charger start work again, it is because of capacity balance after the lamp of charger shows green.

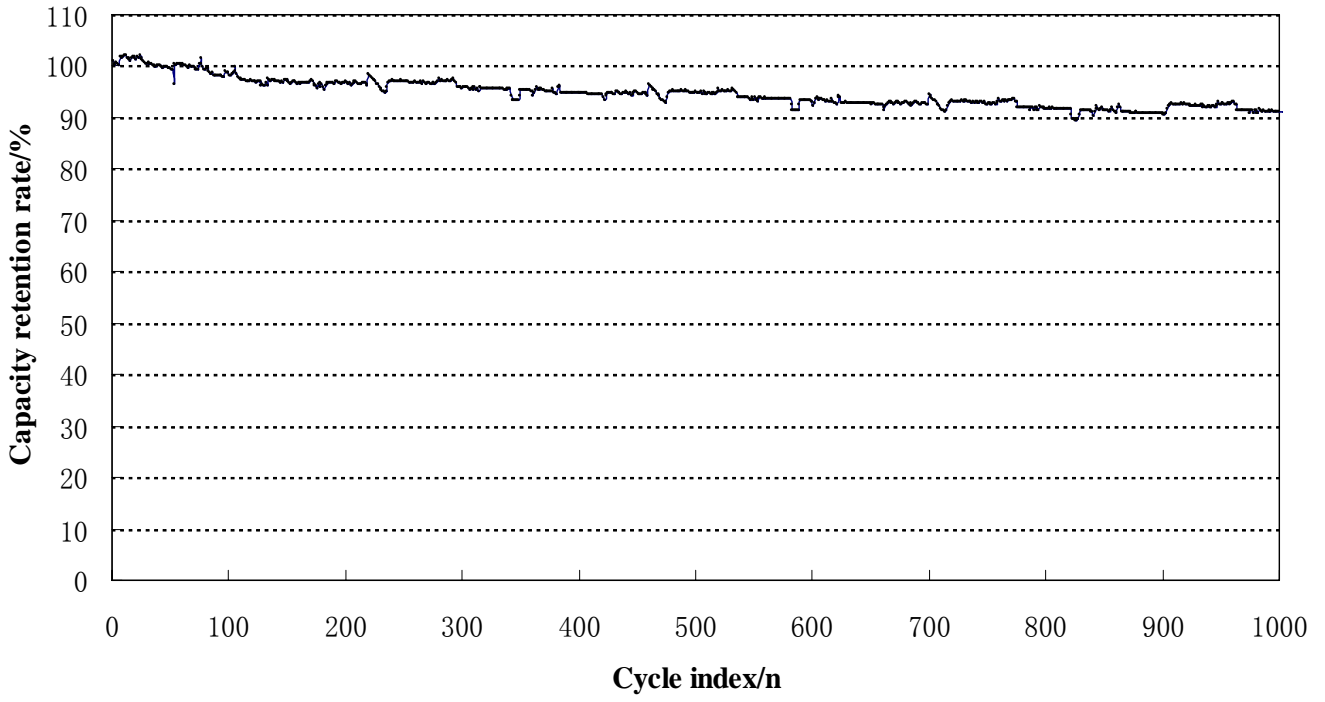
7.5 Don't need to charge the battery after capacity exhaustion and the battery can be

charged just after use because the lithium-ion battery have no memory.

8. Warnings and Precautions

- 8.1 Charging the battery with special charger.
- 8.2 After using the electric bicycle , be sure to keep battery in having electricity state and turn off power switch or take battery out of electric bicycle.
- 8.3 Keep in shady, cool and dry condition if battery not work for a long time, and charge the battery in 2 hours per 1 month.
- 8.4 Don't use or leave the battery at very high temperature locations(over 60°C), such as heating, shining and near fire, etc.
- 8.5 Don't immerse the battery in the water, brine ,acidic or alkaline liquid, and avoid being caught in rain.
- 8.6 Don't reverse the positive and negative terminals.
- 8.7 Don't store the battery together with metal objects.
- 8.8 Prevention of short-circuit.
- 8.9 Prohibition of disassembly.
- 8.10 Prohibition of dumping battery into fire.
- 8.11 Scrap battery may cause danger, never throw them away at random.

Cycle life



Charge retention

