



ACH9019

Accumulateurs Nickel Metal Hydrure Prêts à l'emploi



1. IDENTIFICATION

Cette fiche technique fait état des performances de l'accumulateur Nickel Metal Hydrure NX™

Cell size : 1,2V

IEC designation : HR6

The data involving nominal voltage and the approximate weight of stack-up batteries shall be equal to the value of the unit cell multiplied by the number of unit cells in the battery. For example, a stack-up battery consists of 1 unit cells:

Tension nominale

Thus, nominal voltage of stack-up battery = $1.2V \times 1 = 1,2V$

2. CARACTERISTIQUES

Type	Accumulateur NiMh cylindrique
Tension Nominale	1,2V
Capacité nominale	2000 mAh
Capacité Mini	1900 mAh when discharged at 0.2C to 1.0V at 20
Charge standard	200 mAh (0,1C) for 16 hrs at 20°C
Charge Rapide	Charge termination control recommended : 950 mAh Control parameters: $-\Delta V = 0-5mV$ $DT/dt^{**} : 0.8^{\circ}C/min(0.5 \text{ to } 0.9C) \quad // \quad 0.8-1/min$
Charge de maintien	57 mAH (0.03C) ~ 95 mAH (0.05C)
Durée de vie	> 500 cycles (IEC standard)
Resistance Interne	Average 50 mΩ upon fully charged at 1000HZ
Tension de charge maxi	1,5V at 190 mAh charging
Tension d'arrêt de charge	1V
Courant maxi de décharge	5700 mAh (3C)
Temperature d'utilisation	Standard Charging : 0 to 45°C Fast Charging : 10 to 40°C Discharging : -20 to 60°C
Temperature de stockage (Humidité: 65 ± 20 %)	Within 1 year : -20 to 35°C Within 6 months : -20 to 35°C

3. PERFORMANCE

Temperature Ambiante, T_a : $20 \pm 5^\circ\text{C}$

Taux d'humidité : $65 \pm 20\%$

Conditions de charge et décharge standard:

Charge : 190 mAh (0.1C)×16hrs

Décharge : 380 mAh (0.2C) to 1.0V/cell

Test	Unit	Specification	Conditions	Remarks
Capacité	mAh	≥ 1900	Standard Charge/Discharge	Up to 3 cycles are allowed
Tension Circuit Ouvert (OCV)	V	$\geq 1,25$	Within 1hr after standard Charge	Unit cell
Resistance Interne	mΩ	≤ 50	Upon fully charge (1kHz)	Unit cell
Auto-décharge	mAh	85 % capacity min.	Standard charged, stored for 6 months below 20°C , then standard discharge to 1,0V	
		80 % capacity min.	Standard charged, stored for 1 year below 20°C , then standard discharge to 1,0V	
Surcharge	N/A	No leakage or explosion	190 mAh (0.1C) charge for one year	
Décharge	N/A	After discharge, be conducted with constant load resistor 8 for 3 days.	80% original capacity	
	Cycle	≥ 200	Charge : 400mA (0.2C) Discharge: 400mA(0.2C) To 1.0V/cell End-of-life: 80% nominal Capacity.	Cycling Charging Cutoff condition: -ΔV=5-10mV/cell or Timer Cutoff=105% Of input capacity
Resistance aux Vibrations	N/A	<i>Change of voltage :</i> Should be under 0,02 V/ cell <i>Change of impedance :</i> Should be under 5 milli-ohm/cell.	Standard charge. Then leave for 24 hours, check cell before/after vibration. Amplitude:1.5mm Vibration:3000CPM	Unit cell

Conditions de Test:

Cycle No.	Charge	Rest	Décharge
1	0.1C×16hrs	none	0.25C×2hs20mins
2 - 48	0.25C×3hrs	none	0.25C×2hs20mins
49	0.25C×3hrs	none	0.25C to 1.0V/cell
50	0.1C×16hrs	1-4hr(s)	0.2C to 1.0V/cell

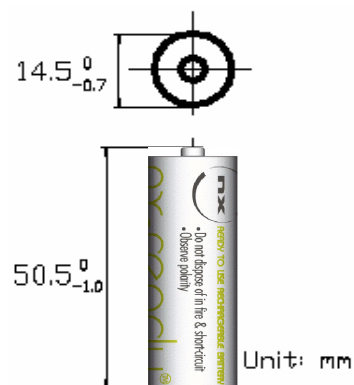
Cycles 1 to 50 shall be repeated

4. CONFIGURATION, POIDS, DIMENSIONS ET CONDITIONNEMENT

Battery	
Dimension (mm)	50,5 x 14,5
Poids	27 g.

Blister	
Dimension (mm)	130 x 104
Poids	10g.
Poids (avec batteries)	120g.

Conditionnement	
1 blister = 4 batteries	
1 boite = 12 blisters	
1 carton = 12 boites	



5. EXTERNAL APPEARANCE

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

6. WARRANTY

One (1) year limited warranty against workmanship and material defects.

7. CAUTION

- Reverse charging is not acceptable.
- Charge before use. The cells/batteries are delivered in an uncharged state.
- Do not charge /discharge with more than the specified current.
- Do not short circuit the cell/battery. Permanent damage to the cell/battery may result.
- Do not incinerate or mutilate the cell/battery.
- Do not solder directly to the cell /battery.
- The life expectancy may be reduced if the cell/battery is subjected to adverse conditions like: extreme temperature, deep cycling, and excessive overcharge/ over discharge.
- Store the cell/batteries uncharged in a cool dry place.
- Keep away from children. If swallowed, contact a physician at once.
- Air ventilation should be provided in the plastic case of batteries, otherwise it may have a risk of generating gas inside them (oxygen gas, hydrogen gas) resulting explosion triggered by fire sources.

