

6NH-SC3300PSK2

1、SCOPE

This specification governs the performance of the following Camelion Nickel-Metal Hydride Cylindrical high drain stack-up battery.

Camelion Model:	RC905G
Configuration and Description:	6NH-SC3300SK2 (with KET620006-2P)
Cell Size:	SC($\phi 22.5^{\pm 0.2} \times H42.5^{\pm 0.5}$)mm
	SC($\phi 0.88^{\pm 0.01} \times H1.67^{\pm 0.02}$)inch

2、DATA OF STACK UP BATTERIES

All data involves voltage and weight to stack-up battery are equal to the value of unit cell time the number of unit cell which consisted in the stack-up batteries

Example: Stack-up battery consisting six unit cells

Nominal voltage of stack-up batteries= $1.2V \times 6 = 7.2V$

3、RATINGS

Description	Unit	Specification	Conditions
Nominal Voltage	V/Pack	7.2	Pack
Nominal Capacity	mAh	3300	Standard Charge/Discharge
Standard Charge	mA	330(0.1C)	$T_1 = 0 \sim 50^\circ\text{C}$
	Hour	14~16	
Fast Charge	mA	3300(1C)	- $\Delta V = 0 \sim 10\text{mV/Cell}$ or Timer CutOff=120 % nominal capacity or Temp.Cutoff= 55°C , $T_1 = 10 \sim 50^\circ\text{C}$
	hour	1.2approx	
Trickle Charge	mA	(0.05C)~(0.1C)	$T_1 = 0 \sim 50^\circ\text{C}$
Standard discharge	mA	660(0.2C)	$T_1 = -30 \sim 60^\circ\text{C}$ Humidity: Max.85%
Discharge Cut-off Voltage	V/Pack	6.0	
Storage Temperature	$^\circ\text{C}$	-30~65	Discharged state、Humidity、Max.85%
Typical Weight	Gram	372	

4、 PERFORMANCE

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

Ambient Temperature, T_1 : $20 \pm 5^\circ\text{C}$

Relative Humidity: $65 \pm 20\%$

Notes: Standard Charge/Discharge Conditions:

Charge: $330\text{mA}(0.1\text{C}) \times 14$ hours

Discharge: $660\text{mA}(0.2\text{C})$ to $6.0\text{V}/\text{Pack}$

Test	Unit	Specification	Conditions	Remarks
Capacity	mAh	≥ 3300	Standard Charge /Discharge	Up to 3 cycles are allowed
Open Circuit Voltage(OCV)	V/ Pack	≥ 7.5	Within 1 hour after standard Charge	
Internal Impedance	m Ω / Cell	≤ 11	Upon fully charge(1KHz)	
High Rate Discharge(1C)	minute	≥ 54	Standard Charge, 1 hour rest Before discharge by 3300mA (1C)to $6.0\text{V}/\text{pack}$	Up to 3 cycles are allowed
High Rate Discharge(5C)		≥ 11	Standard Charge, 1 hour rest Before discharge by 16500mA (5C)to $4.2\text{V}/\text{pack}$	
High Rate Discharge (10C)		≥ 5	Standard Charge, 1 hour rest Before discharge by 33000mA (10C)to $4.2\text{V}/\text{pack}$	
Overcharge	/	No leakage nor explosion	$330\text{mA}(0.1\text{C})$ Charge 28 days	
Charge Retention	mAh	$\geq 2310(70\%)$	Standard Charge, Storage: 28 days, Standard Discharge	
IEC Cycle Life	Cycle	≥ 500	IEC285(1993)4.4.1	
Leakage		No leakage nor deformation	Fully charged at $3300\text{mA}(1\text{C})$ for 1.2hour Stand for 14 days	
Vibration Resistance		Change of voltage should be under $0.02\text{V}/\text{cell}$, Change of impedance should be under 5 milli-ohm/cell	Charge the battery at 0.1C for 14hrs. Leave for 24hrs. Check battery before/after vibration, amplitude 1.5mm Vibration 3000 CPM in any direction for 60mins.	
Impact Resistance		Change of voltage should be under $0.02\text{V}/\text{cell}$ Change of impedance should be under 5 milli-ohm/cell	Charge the battery at 0.1C for 15hrs. Leave for 24hrs. Check battery before/after drop from 50cm height, onto wooden board(30mm thickness)3 times.	

5、CONFIGURATION, DIMENSIONS AND MARKINGS

Please refer to the attached drawing.

6、EXTERNAL APPEARANCE

The cell/battery shall be free from cracks, scars, breakage, rust, discoloration, leakage nor deformation.

7、WARRANTY

One year limited warranty against workmanship and material defects.

8、CAUTION

- (1) Reverse charging is not acceptable.
- (2) Charge before use. The cells/batteries are delivered in an uncharged state.
- (3) Do not charge/discharge with more than our specified current.
- (4) Do not short circuit the cell/battery Permanent damage to the cell/battery may result.
- (5) Do not incinerate or mutilate the cell/battery.
- (6) Do not solder directly to the cell/battery.
- (7) the life expectancy may be reduced if the cell/battery is subjected adverse conditions like:
extreme temperature, deep cycling, excessive overcharge/ over-discharge.
- (8) store the cell/battery uncharged in a cool dry place. Always discharge batteries before bulk storage or shipment.

Notes:

- (1) T_1 : Ambient Temperature.
- (2) Approximate charge time from discharged state, for reference only.
- (3) IEC285(1993)4.4.1 Cycle Life:

Cycle No.	Charge	Rest	Discharge
1	$0.1C \times 16h$	None	$0.25C \times 2h20min$
2-48	$0.25C \times 3h10min$	None	$0.25C \times 2h20min$
49	$0.25C \times 3h10min$	None	0.25C to 1.0V/ cell
50	$0.1C \times 16h$	1-4h	0.2C to 1.0V/ cell
Cycles I to so shall be repeated until the discharge duration on any 50th Cycle becomes less than 3 h.			

- (4) Environmental elements: in compliance with RoHS requirements.

