

PRODUCT DATA SHEET

HR6 RECHARGEABLE



Ref.no. AL-PO-HR6-Rech2-V23-09

Date of issue: 1 October, 2023



Type Designation	IEC: HR6 /AA
Made in	China
Chemical System	Nickel Metal Hydride
Nominal Voltage	1.2 V
Average Weight	27 g
Typical Capacity	2050 mAh
Rated Capacity	2000mAh
Charging rate	0.1C-1C
Max Discharger Rate	3C
Storage Temp	10°C (50°F)-25°C (77°F)
Operating Temp	-20°C (-4°F)-55°C (131°F)
Compliant to	IEC 62133, IEC61951-2, non-dangerous goods regulation EU directive 2006/66/EC

Appearance and terminal

Battery shall be clean and have no dirt, no leakage, and no deformation which may affect their performance and actual use and shall have clearly visible markings.

Performance

TEST	UNIT	Specification	Conditions	Remarks
Capacity	mAh	≥ 2000	Standard Charge/Discharge	Up to 3 cycles are allowed
Open Circuit Voltage (OCV)	V	≥ 1.25	Within 1hr after standard charge	
Internal Impedance (Ri)	m Ω	≤ 28	Upon fully Charge At 1Khz	
High Rate Discharge (0.5C)	Min	≥ 108	Standard Charge, 1hr rest before discharge	
High Rate Discharge (1C)	Min	≥ 51	Standard Charge, 1hr rest before discharge	
Overcharge		No deformations and/or leakage	200mA (0.1C) charge 1 year	
Charge Retention	mAh	≥ 1600	Standard Charge Storage: 12 months at 20°C Standard Discharge	
IEC Cycle test	Cycle	≥ 500	IEC61951-2(2017) 7.5.1.2	
		≥ 200	IEC61951-2(2011) 7.5.1.4	
Leakage		No leakage	Fully charged at 2400mA (1C), stand for 14 days	
External Short Circuit		No Fire / explosion	After standard charge, short circuit the cell(s) at 20+/-5°C until the cell(s) temperature returns to ambient temperature. (The resistance of the interconnecting circuitry shall not exceed 0.1 Ω .)	
Vibration Resistance		$\Delta V < 0.02V/\text{cell}$ ΔRi (Internal Impedance) $< 5m \Omega/\text{cell}$	Charge the battery 0.1C 16hrs, then leave for 24hrs, check battery before / after vibration, Amplitude: 1.5mm Vibration: 3000CPM Any direction for 60mins	Unit Cell
Impact Resistance		$\Delta V < 0.02V/\text{cell}$ ΔRi (Internal Impedance) $< 5m \Omega/\text{cell}$	Charge the battery 0.1C 16hrs, then leave for 24hrs, check battery before / after dropped, Height: 50cm Wooden board (thickness 30mm) Direction not specified, 3 times	Unit Cell

1. Ta Ambient Temperature
2. Approximate charge time from discharged state, for reference only