

Type C Rechargeable NIMH Battery

1.2V, 4500mAh

multicomp PRO

**RoHS
Compliant**

Description

Sealed Nickel-Metal Hydride Cylindrical Rechargeable Battery Cells.

Scope of Application:

Type C (High Top)

Nominal Voltage		1.2V/cell
Capacity	Typical	4500 mAh/0.2 CmA@20°C
	Minimum	4000 mAh/0.2 CmA@20°C
Charge	Standard	0.1 CmA for 16 hrs.
	Rapid	0.3CmA for 3.6hrs.(approx.) -ΔV = 0~5mV/cell, Temp. cut-off = 45°C to 50°C, dT / dt=0.8°C/ min. Ta = 0°C to 40°C.
	Trickle	0.03 CmA (time must to be advised from NEXcell according to the condition of cut-off)
Maximum Discharge Current		1.0CmA (Continuous) 3.0CmA (Pulse)
Discharge Cut-off Voltage		1.0 V/cell
Cycle Life		500 cycles (see Note:6)
Applicable Temperature	Standard Charge	0°C to +45°C
	Rapid Charge	0°C to +40°C
	Discharge	-10°C to +60°C
Storage	Within 6 months	-20°C to +20°C
	Within 3 months	-20°C to +30°C
	Within 1 month	-20°C to +40°C
Relative Humidity Range		65%±20%
Dimension		D = 25.5 mm max., H = 50.0 mm max.
Weight		Approx. 86.0 g

- This specification is available only for the testing within one month since receipt of battery packs
- To keep the best performance for those not used for a long time, we recommend to charge the cells/batteries at least 30% after discharge entirely in every 6 months.
- Note: Specifications are subject to be modified without prior notice.

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Performance:

Unless otherwise stated, tests should be done within 45 days of delivery under the following

Conditions:

Ambient Temperature, Ta : 20 + 5°C

Relative Humidity : 65 + 20% RH

Standard Charge / Discharge Condition

Charge : 0.1 CmA x 16 hours

Discharge : 0.2 CmA to 1.0 V/cell

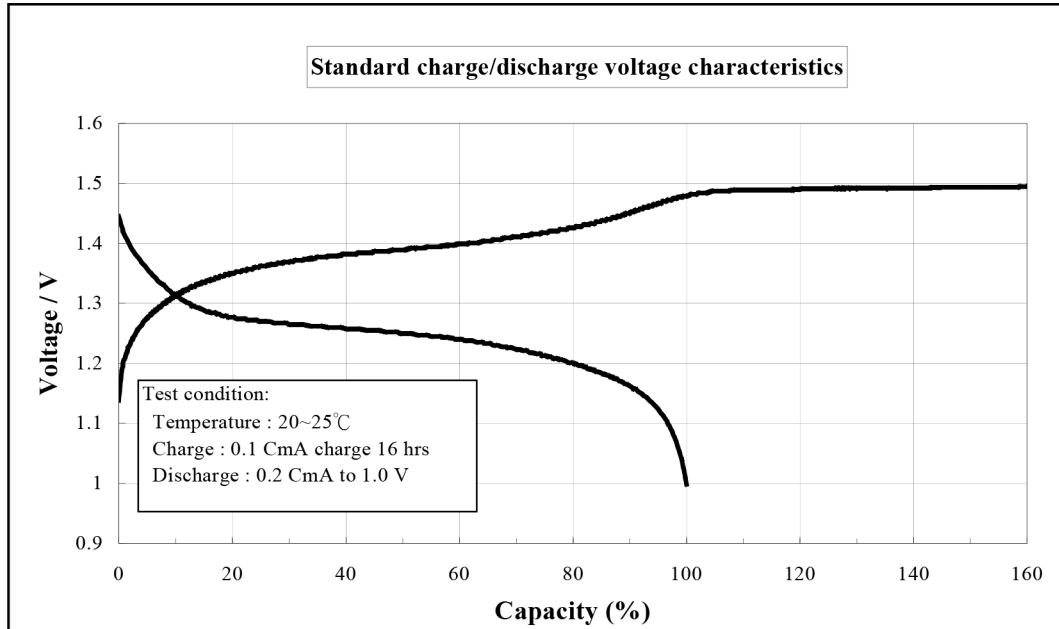
Test Item	Test Method	Performance	Remarks
Capacity	Standard Charge Standard Discharge	No less than rated capacity	Up to 3 cycles are allowed
High Rate Discharge (1.0CmA)	Standard Charge 1 hour rest before discharge	No less than 80% of rated capacity	
Low Temperature Discharge	Discharge at 0.2CmA in 0±2° for 16 to 24 hours stand after a standard charge	No less than 70% of rated capacity	
Terminal Voltage Open Circuit Voltage	Within 1 hour after standard charge	No less than 1.25V/cell in terminal voltage	
Cycle Life	IEC 61951-2 (2003) 7.4.1.1	Over 500 cycles	See Note:6
Charge Retention	Standard Charge Storage 28 days at 20 + 2°C Standard Discharge	No less than 60% of rated Capacity	
Overcharge	Charge at 0.1CmA for 48 hours Standard Discharge	No less than rated capacity	
Over-discharge	Standard Charge Discharge at 2.0CmA to 1.0 V/ cell Over-discharge at 1.0CmA for 1 hour	The cell shall not explode The safety valve of the cell shall operate	
Vibration Amplitude Frequency Direction and Time	3.6mm peak to peak 1000 cpm Arbitrary direction / 1 hour	The cell shall be normality in appearance No less than 1.2V/cell in terminal voltage.	
Shock Dropping Distance Shock Board Dropping Time	0.45 m (spontaneous dropping) Hard wood (Thickness: over 10 mm) Arbitrary direction / 3 times	The cell shall be normality in appearance No less than 1.2Vcell in terminal voltage	
Leakage	Standard Charge Storage : 14 days in 33 + 5°C and 80 + 5% RH	The cell shall have no visible leakage	
Short Circuit	After standard charge, short circuit by 2 mm Ni-tab for 1 hour	Leakage and deformation may occur, but no explosion is allowed	

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Charge/Discharge Curve



Part Number Table	
Description	Part Number
Rechargeable NIMH Battery, Type C, 1.2V, 4500mAh	MP005527

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