

BGN5500-5FWP-9030EC

(6.0V 5500mAh)

Rechargeable Sealed Nickel Cadmium Battery Pack



Technical Specification Sheet



This specification governs the performance of the following Nickel-Cadmium Cylindrical cell and its stack-up battery. All data involves voltage and weight to stack-up battery are equal to the value of unit cell times the number of unit cell which consisted in the stack-up batteries.

RATINGS

| Description | Unit | Specification | Conditions | |
|-----------------------------|--------|---------------|--|---------------------------------------|
| Nominal Voltage | V/Cell | 1.2V | Unit cell | |
| Nominal Voltage | mAh | 5500 | Standard Charge/Discharge | |
| Standard Charge | mA | 550 (0.1C) | Ambient Temperature : Ta = 20 ± 5°C | |
| | Hour | 16 | | |
| Trickle Charge | | 0.03C ~ 0.05C | Ta = 0 ~ 45°C | |
| Standard Discharge | mA | 1100(0.2C) | Ambient Temperature : Ta = 20 ± 5°C Humidity : Max. 85% | |
| Discharge Cut-off Voltage | V/Cell | 1.0 | | |
| Operating Temperature Range | °C | 0 ~ 45°C | Humidity : Max. 85% | |
| Storage Temperature | °C | -20 ~ 35°C | 1 Year | Fully charged state, Humidity Max.60% |
| | | 0 ~ 60°C | 1 Week | Fully charged state, Humidity Max.80% |
| Typical Weight | g | Approx. 128.0 | | |

PERFORMANCE

| Test | Unit | Specification | Other Condition | Remarks |
|----------------------------|---------|---|---|-----------------------------------|
| Capacity | mAh | 5500 | Standard Charge Discharge | Up to 3 cycles are allowed |
| Open Circuit Voltage (OCV) | V/Cell | ≥1.25 | Within 1 hour after standard Charge | |
| Internal Impedance | mΩ/Cell | ≤15 | Upon fully charge (1 KHz) | |
| High Rate Discharge (1.0C) | minute | ≥48 | Standard Charge, 1 hour rest Before Discharge by 1.0C to 1.0 V/cell | Up to 3 cycles are allowed |
| Overcharge | | No leakage nor explosion | 0.1C Charge 14 days | |
| Charge Retention/ | mAh | ≥3575(65%) | Standard Charge, Storage : 45°C Ambient Temperature, Standard Discharge | |
| IEC Cycle Life/ | Cycle | ≥500 | IEC61951-1(2003)7.4.1.1 | (See Note) |
| Leakage Test | | No leakage nor deformation | Fully charged at 0.5C for 2.5 hour stand for 14 days. | |
| Security Test | | No explosion, but leakage or deformation is allowed | Charge the cell 0.1C 16hrs, Then ≤100mΩ Impedance short circuit for 1hour | Ambient Temperature : T=20±5°C |
| Impact Resistance | | Change of voltage should be under 0.02V/Cell; change of impedance should be under 5mΩ | Charge the cell 0.1C 16hrs, then leave for 1~4hrs, check battery before/after dropped Height 50cm Wooden board (thickness 30mm) Direction not specified, 3 times. | Ambient Temperature : T=20±5°C |
| Vibration Resistance | | Change of voltage should be under 0.02V/cell; change of impedance should be under 5mΩ | Charge the battery 0.1C 16hrs, then leave for 24hrs, check Battery before/after vibration, Amplitude 1.5mm Vibration 3000CPM, Any direction for 60mins. | Ambient Temperature : T=20±5°C |