

# DISCHARGE PERFORMANCE, RATED CAPACITY

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# EXECUTIVE SUMMARY

Testing of rechargeable NiMH batteries of size AA and AAA, according to IEC 61951-2 2017 ED 4 section 7.3.2 Discharge performance at 20 °C to determine capacity after five performed cycles.

*Table 1 Average discharge capacity (mAh) everActive Silver line HRL6 (AA) 1900 mAh*

Cycle No.	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
Average	1939	1942	1942	1942	1942

*Table 2 Average discharge capacity (mAh) everActive Silver line HRL03 (AAA) 750 mAh*

Cycle No.	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
Average	793	806	809	811	811



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## References:

Proposal No. SO2205347

Test conditions: IEC 61951-2 2017 ED 4



## 1 COMMISSION

The commission is according to IEC 61951-2 2017 ED 4 clause 7.3.2, Discharge performance at 20°C and with our proposal No. SO2205347.



## 2 TEST SAMPLES

Table 2 Test samples

Brand	Battery type/Rated capacity	Production lot	Intertek ID number	Date of arrival
everActive Silver line	NiMH HRL6 (AA) 1900 mAh	2220BL	ES22-048	2022-06-22
everActive Silver line	NiMH HRL03 (AAA) 750 mAh	2210	ES22-048	2022-06-22

note: ES number is Intertek Semko AB identification for each sample. The test samples were delivered from Baltrade sp. Z o.o. to Intertek for testing.

Photographs of tested products:



Figure 1: everActive Silver line HRL6



Figure 2: everActive Silver line HRL03





## 4 TEST CONDITIONS

Test conditions are according to IEC 61951-2

Intertek Semko AB's computer-controlled test equipment of type PEC ACT 0550, Inventory No. 33674 has been used for all cycling.

Room temperature:  $21 \pm 1$  °C

Humidity: 45 – 65 %

For determine of time to cut-off voltage, the battery voltage is checked approximately every 30 ms, registered at every 30 seconds and  $\Delta V = 5$  mV.

### 4.1 Uncertainty of voltage/current/temperature measurement

The uncertainty of voltage measurement is calculated to be  $\leq 1$  % based on calibrations.

The uncertainty of current measurement is calculated to be  $\leq 1$  % based on calibrations.

The uncertainty of temperature is calculated to be  $\leq 1$  °C based on calibrations.





## 5 TEST RESULTS

Table 5 *Discharge capacity (mAh) everActive Silver line HRL6 (AA) 1900 mAh*

Sample nr:	Rest discharge	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
1	1513	1894	1896	1896	1896	1896
2	1521	1938	1940	1939	1939	1938
3	1484	1944	1946	1946	1945	1945
4	1503	1971	1974	1974	1974	1974
5	1531	1949	1953	1954	1954	1955

Table 6 *Discharge capacity (mAh) everActive Silver line HRL03 (AAA) 750 mAh*

Sample nr:	Rest discharge	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
1	584	779	796	802	805	806
2	586	796	811	816	817	818
3	597	820	830	831	831	831
4	597	774	785	789	791	791
5	610	797	806	809	809	809

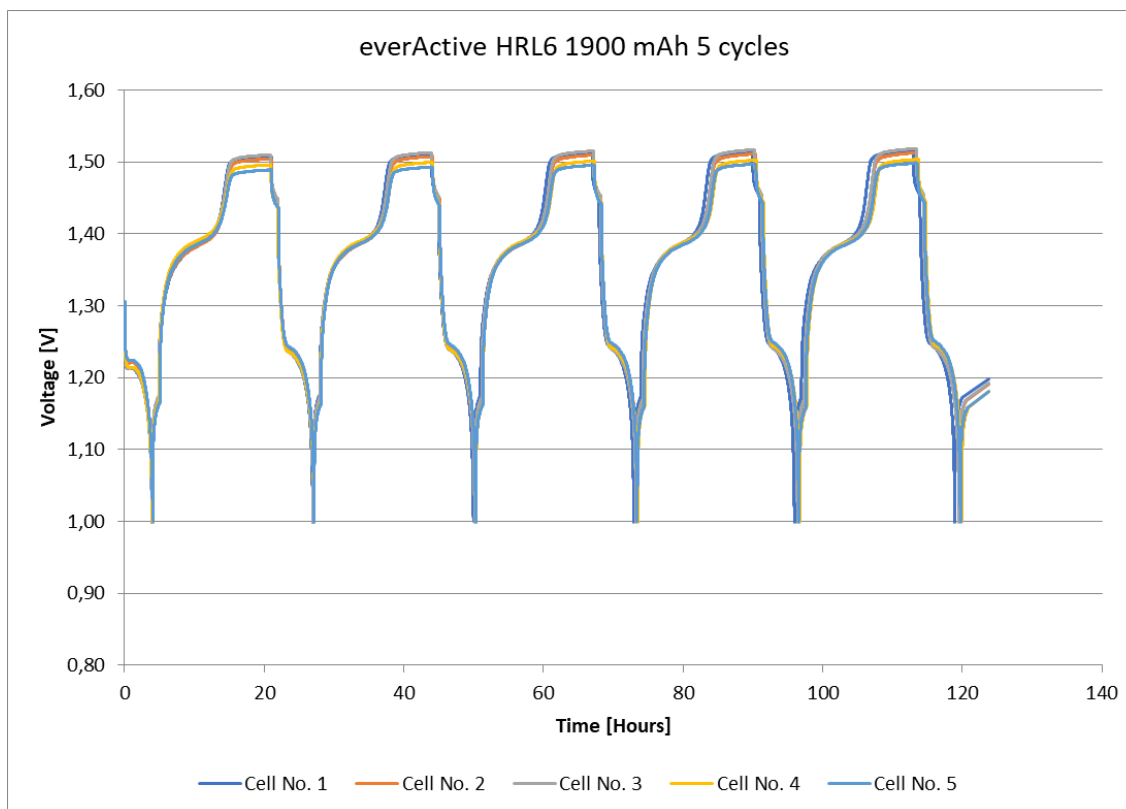


Figure 1

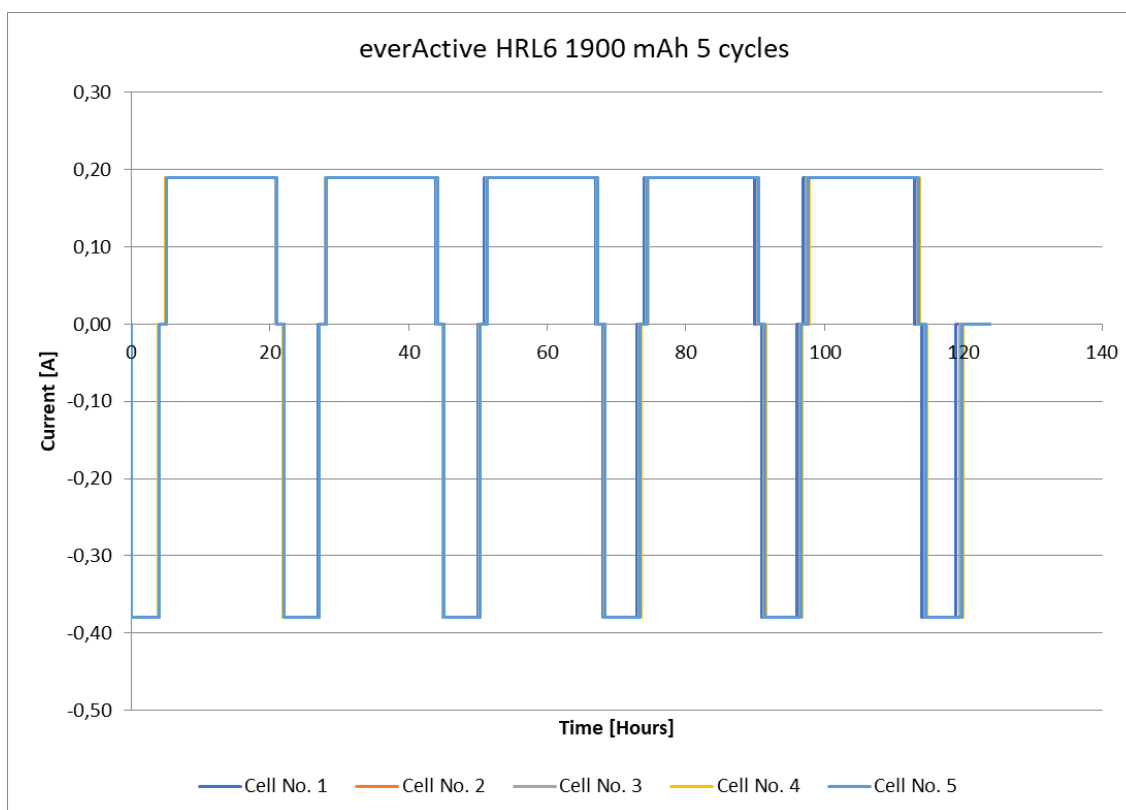


Figure 2

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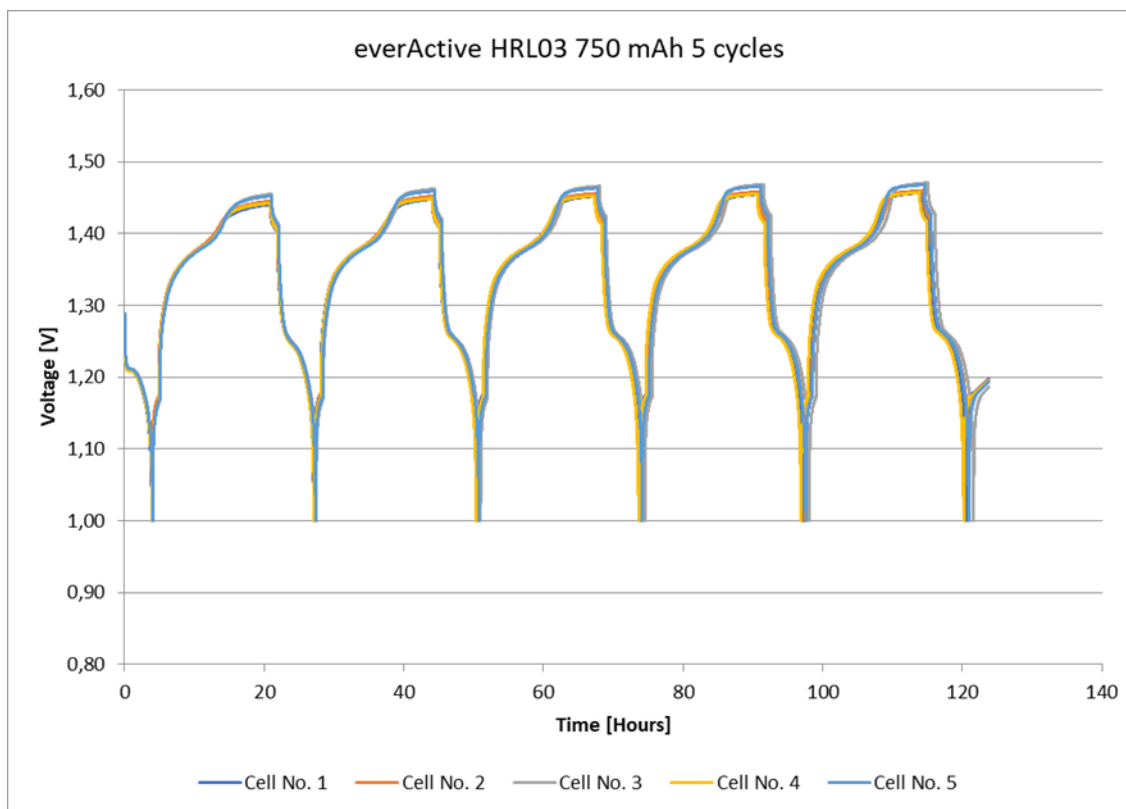


Figure 3

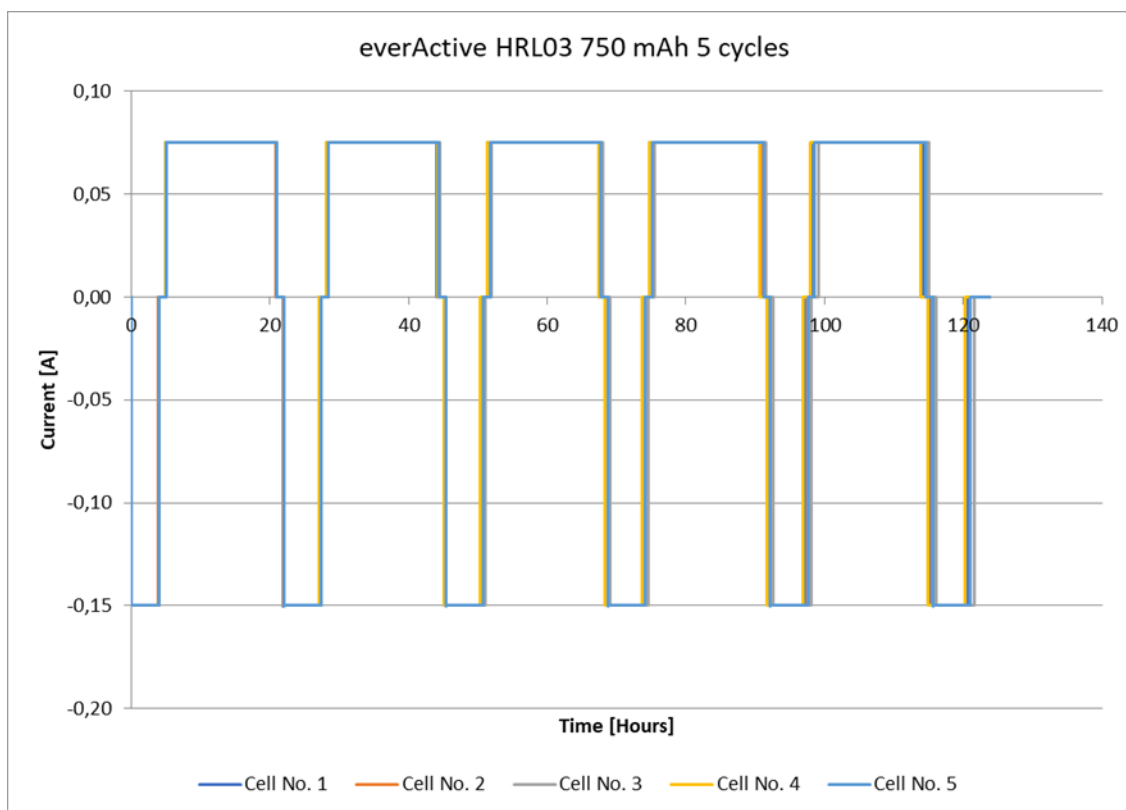


Figure 4

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