

OSM-BAT DECISION

Standard: EN 62133-1:2017 EN 62133-2:2017+ AMD1:2021 EN 62619:2017	Sub clause: -	Sheet No.: DSH 1037A
Subject: Sample selection when testing of series of batteries	Key words: Sample selection Series of batteries	Meeting: Frankfurt 2024
Question: <p><i>In a series of batteries of the same dimensions, chemistry, voltage, from the same manufacturer, but with different capacities, which models shall be selected for testing if the safety compliance of the whole series is to be verified?</i></p> <p><i>Example of a series of Ni-MH batteries :</i> <i>400mAh; 500mAh; 600mAh; 700mAh; 800mAh; 900mAh; 1000mAh; 1100mAh, 1200mAh; 1300mAh; 1400mAh; 1500mAh; 1600mAh; 1700mAh; 1800mAh; 1900mAh; 2000mAh; 2100mAh; 2200mAh; 2300mAh; 2400mAh and 2500mAh.</i></p>		
Decision: <p><u>In the example above when the total capacity difference exceeds 20%</u></p> <p>Starting with the highest capacity, calculate capacity values in 20% decrements below that value. Select those models in the series for testing whose capacities are closest to the calculated values. 2500 mAh, 2000 mAh, 1600 mAh, 1300 (1280) mAh, 1100 (1024) mAh, 900 (820) mAh, 700 (656) mAh, 600 (524) mAh, 500 (420) mAh and 400 (336) mAh.</p> <p><u>If the total capacity difference in a series of batteries does not exceed 20%</u> Select for testing the lowest, the highest and one model closest to the middle of the series.</p> <p>A change that might lead to failure of any of the tests shall be considered a new type and shall be subjected to the required tests.</p>		
Explanatory notes: <p>The type of change that might be considered to differ from a tested type, such that it might lead to failure of any of the test results, may include, but is not limited to:</p> <ul style="list-style-type: none"> (a) A change in the material of the anode, the cathode, the separator or the electrolyte; (b) A change of protective devices, including hardware and software; (c) A change of safety design in cells or batteries, such as a venting valve; (d) A change in the number of component cells; and (e) A change in connecting mode of component cells. 		