

SAFETY TESTING OF LITHIUM-ION BATTERIES

In accordance with the rapid development of technologies and the increased demand and use of batteries, standards for battery safety have been created. Whether it is about transporting or using batteries, a series of tests are defined that they must pass, so that users can use them safely.

The laboratory center conducts safety tests of lithium-ion batteries in accordance with UN guidelines for transport safety (also known as UN 38.3), tests in accordance with regulations, i.e. ECE R100 documents (for the homologation of the battery system on EVs), and safety standards, such as EN 62133- 2.

Standards:

- » ST/SG/AC.10/11 (UN 38.3)
- » ECE R100 (both versions, 2 and 3)
- » EN 62133-2



Standard tests:

- » Altitude tests
- » Thermal tests (Climatic testing)
- » Case stress testing
- » Resistance to sinusoidal vibration
- » Resistance testing to shock
- » External short circuit testing
- » Over-charge testing
- » Over-discharge testing
- » Over-temperature protection testing
- » Over-current protection testing
- » Free-fall testing

Special test:

Manufacturer specified tests, like endurance tests, cycling of the batteries, climatic cycling (under normal or extreme conditions, etc.)



ACCREDITATION

Laboratory Center of KONČAR – Electrical Engineering Institute Inc. is accredited by the Croatian Accreditation Agency (HAA) in accordance with HRN EN ISO/IEC 17025 for the scope of calibration specified in the Accreditation Certificate No. 2057, covered by EA-MLA.

HAA is a signatory to the multilateral agreement of the European Co-Operation for Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC).



lab@koncar-institut.hr



Fallerovo šetalište 22, Zagreb, Croatia



www.koncar-institut.hr/en



KONČAR - Electrical Engineering Institute