

Energy Storage Systems (REESS)

Testing of electric vehicles and high-voltage components

We offer dynamic and static testing of HV components or entire vehicles according to standard specifications or customer requirements.

- ✓ **VIBRATIONS (ECE-R 100)**
- ✓ **MECHANICAL INTEGRITY (ECE-R 100)**
- ✓ **PRESSURE AND VIBRATION TEST (ECE-R 100)**
- ✓ **THERMAL SHOCK AND CYCLE TESTS (ECE-R 100)**
- ✓ **COMPLETE VEHICLE CRASH (ECE-R 94 / ECE-R 95)**
- ✓ **FIRE RESISTANCE (ECE-R 100)**

VIBRATIONS

DTC AG has a crash facility (deceleration system) on which both complete vehicle and component tests can be performed. Individual cells up to entire HV systems can be mounted and loaded on our deceleration sled. Pulses according to specifications or ECE-R 100 as well as other pulses (e.g. GB/T 31467.3 or DAE J2464) can be generated. A bending plate brake is used to decelerate the test specimen.



Vibration test according to ECE-R 100

YOUR BENEFIT

Accredited test laboratory

Our test laboratory is accredited according to ISO/IEC 17025 to perform tests on HV batteries according to ECE-R 100 Annex 8.

Multiple tests in one place

We offer you the possibility to carry out several different tests (e.g. vibration test and shock test) simultaneously at one location.

Competent employees

Our employees are trained in working with HV components and have extensive experience in component and testing of vehicles as a complete system.

Confidentiality

We guarantee absolute confidentiality of projects, constructions, processes and prototypes.

PRESSURE AND VIBRATION TESTS

For the determination of the natural frequencies and the initiation of power spectra of different acceleration levels we have several shaker systems. With different measuring devices, the excitation and the response signals can be recorded at different measuring points in one or multiple axes.



Pressure test HV-battery



Vibration test HV-battery

IMPULSE AND SHOCK TESTS

For electrically powered vehicles, hybrids and electrical components electrical safety must be demonstrated both for individual components, such as the engine or battery, and for the assembly and electrical connections of these components. For this purpose, tests can be performed according to standards (e.g. ECE-1 100 or ECE-R 136), specifications of the respective vehicle manufacturers or your personal specifications.

COMPLETE VEHICLE TESTS

In addition to tests on HV-batteries and HV components, we also offer you various tests with entire E-vehicles. Collisions according to standard specifications or collisions between two or more vehicles are possible. Speed, angle, position and overlapping of the vehicles are individually adapted to your requirements.



side impact on HV electric vehicle

THERMAL SHOCK AND CYCLE TESTS

The DTC climatic chamber is able to assess the effects of the environment on a HV system. It can be tempered from -20°C to max. 40°C, has a total volume of approx. 15 m³ and can be used for compression, tensile and vibration tests. With special software for control and monitoring, the compliance of the test parameters can be guaranteed, even for tests of longer duration.



thermal shock and cycle tests

FIRE RESISTANCE

Are you looking for direct / indirect firing, exact and permanent temperature monitoring as for example for fire tests according to ECE-R 34? We have the equipment, which is also in demand for ADR.



Fire resistance



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