



The HI-TECH HUB for **TESTING** e-Mobility

BATTERY SYSTEMS

**Validation
& Homologations**



TOGETHER TOWARD EXCELLENCE



CSI, through its Automotive BU, is active in the field of development, testing and homologation of automotive batteries for electrified powertrains, operating in compliance with the quality standard **ISO/IEC 17025**.

The range of services offered for the development of battery systems, together with complementary services in the field of electric and hybrid vehicles, and engineering, allow CSI to offer a **complete service: from concept to full vehicle validation and certification/type approval**.

Testing facilities

**Up to
500 kW**

Charging/discharging power supplies:
0 ÷ 1200 V d.c. / 0 ÷ 1000 A

Up to 147

Testing channels

No. 13

Climatic chambers (0.3 ÷ 220 m³) operating in -60 ÷ +220 °C temperature range

No. 5

Vibrating benches up to 700 kg of payload

Up to 50g

Acceleration sled for shock tests

Test Standard

Tests are performed in accordance with the main European and extra-European regulatory standards such as:

- » UNECE R100 "Uniform provisions concerning the approval of vehicles with regard to specific requirements for the electric power train"
- » UNECE R10 "Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility"
- » UN 38.3 "UN Recommendations on the Transport of Dangerous Goods"
- » KMVSS Part 48. "Safety Test for Traction battery"
- » GB 31467.3 "Lithium-ion traction battery pack and system for electric vehicles Part 3: Safety requirements and test methods"

Available services

Full homologation

According to ECE R100, ECE R10 and GB 31467.3, ECE 155/156 under accreditation

Testing for self-certification

According to UN 38.3 and KMVSS Part 48

Complementary activities

- Full 3D scanning activity of battery components
- Integrity and functionality verification on post-crash battery

Other validation services

- Validation & durability on full vehicle & subsystems/components
- Benchmark & target setting activities
- Environmental, endurance, vibration & thermal shock
- Life test on electric/electronic components
- Corrosion test under salt fog & dust test
- EMC tests
- Diagnosis & problem solving



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