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E-Mobility by REO

Testing for safety – setting new standards

The manufacture and sale of electrical components requires extensive tests to ensure compliance with standards and the safety of products. Whether checks of the battery in the workshop or tests of inverters for electric cars in test areas – REO offers the optimal solution from a single power supply to complex module test stations with power supplies, load and electronic control units.

How can battery charges be tested?
...Or: RELOAB three-phase AC power supplies

By using a REO three-phase AC power supply REOLAB 600 with adjustable electronic output frequency, a motor check can be done simply and quickly.



How can I check e-motors?

...Or: REOLAB 600

By using a REO three-phase AC power supply REOLAB 600 with adjustable electronic output frequency, a motor check can be done simple and dynamically.



See more about product integrity on the other side.

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Testing for safety – setting new standards

The safety of drivers and passengers is of utmost importance in the automotive industry. Existing standards and norms of vehicle manufacture must be extended, because of the increased use of electrical components. Development and production of electric vehicles are still in their infancy and automobile manufacturers, suppliers and manufacturers of electrical components such as REO are faced with new tasks.

Many years of solid experience in the railway traction industry helps REO in the development of new components for the e-Mobility market. Many of the requirements of train components such as thermal behaviour, mechanical stress and the compliance of standards and norms are the same in the automotive technology.

How can I optimise development costs?

...Or: Calculations by using FEM analysis

By using simulation programs like in train technology, 3D models show the physical effects on the components. Many of these simulated effects are similar to the automotive sector:

- Simulation of temperature behaviour
- Heat dissipation and radiation
- Life cycle calculations by testing effects of cyclic loading
- Investigation of material properties

Requirements for the electronics – Comparison of industry, train and automotive technology

	Industry	Railway	Automotive
Current stress	low	high	medium/high
Thermal stress	low/medium	high	high
Mechanical stress	low/medium	medium	medium/high
Lifetime	medium	high	medium/high

Many components must be specially designed for the e-Mobility.

Of special importance are:

1. Mechanical stress depending of the installation location
(Vibration 3g – 30g, shock 20g – 100g)
2. Thermal stress depending of the installation location
(Ambient temperature 85° - 130° C)
3. Cooling by air or cooling fluid
4. Adaption to voltages of the automotive technology
5. Small designs and integration

In some areas, the requirements of train technology are higher than in the automotive technology. Many years of experience as a manufacturer of electrical components for train inverters gives REO the best grounding for supplying the automotive industry.

How can I continue to be a pioneer in the e-Mobility market?

...Or: REO provides innovative ideas

Cooperation with various universities and research institutes has already helped us to provide new solutions in the field of e-Mobility.

As a partner of the leading automotive manufacturers in the development of efficient energy driving, we are able to provide technically superior solutions which are at the pinnacle of automotive design.