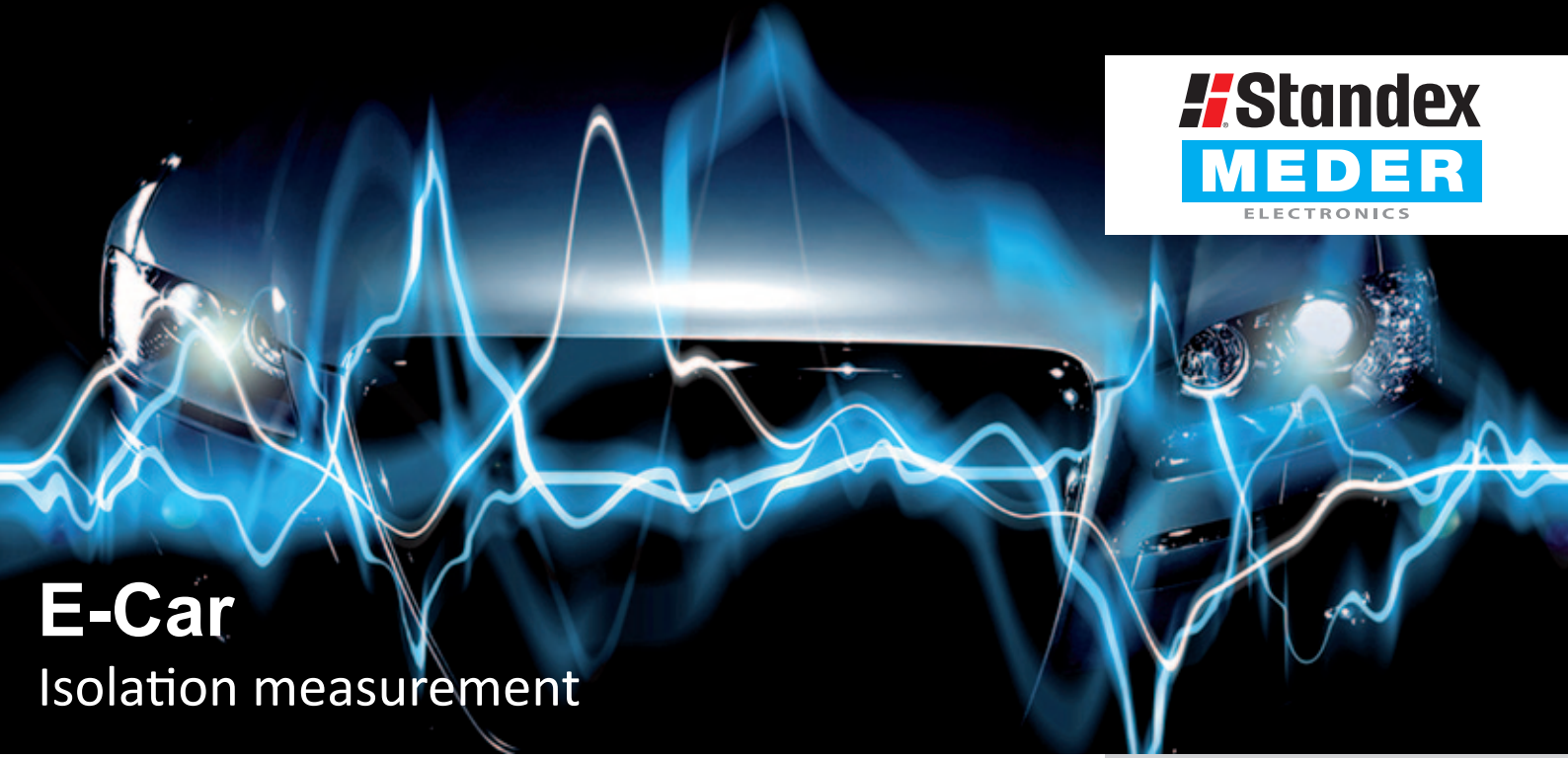
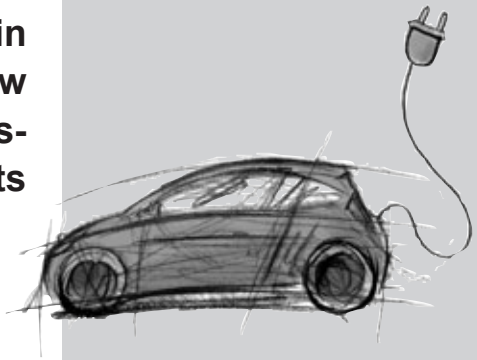


E-Car

Isolation measurement

Hybrid and electric drivetrains in cars, trucks and two wheelers are introducing new, previously unknown challenges in the transportation industry. The 12V or 24V board net is now complemented with a 400V or higher battery and power system, which introduce a completely new set of requirements for the car OEMs and system module providers.

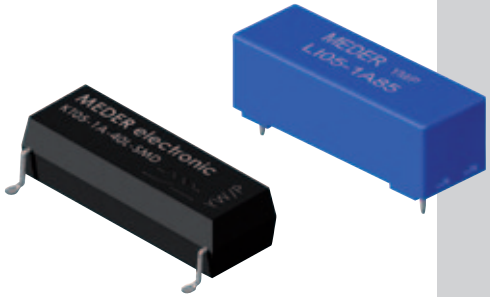


Operating with such high voltages and current in a harsh automotive environmental drive the need for higher robust but also long term stable solutions for isolating these high voltages levels from the other electronic functions but most important also from the passengers. This isolation need is present in all function of the Hybrid and Electric Vehicles like the high voltage battery, the DC/DC converter, the inverter for driving the electric motor, but also for the charger module connected to the 230V/380V power grid. Therefore electronic vehicles contain an internal measurement system. This system check all electrical parameters like isolation and dielectrical strength (Isolation resistance between active and electronic components and the frame). To switch or cut such a measurement system to the power system a high isolation is required.

Reed Relays from Standex-Meder perfectly fulfill such requirements. Despite its small size, the Relay has an isolation resistance of up to >10 G Ohm. Another advantage is the low power consumption. Reed Relays only need energy during the switching process which has a positive influence on the overall efficiency of the E-Car. Reed relays are well sealed, making them insensitive to dirty and dusty environments.

3 good reasons:

High isolation
Low power consumption
Long life expectancy



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