

Customer Application #17

High Power Test Setup for EMobility Components

A high-power test setup from MSPM Power GmbH is used to test the electrical and thermal performance of electronic components under several load conditions.



MSPM Power Tower

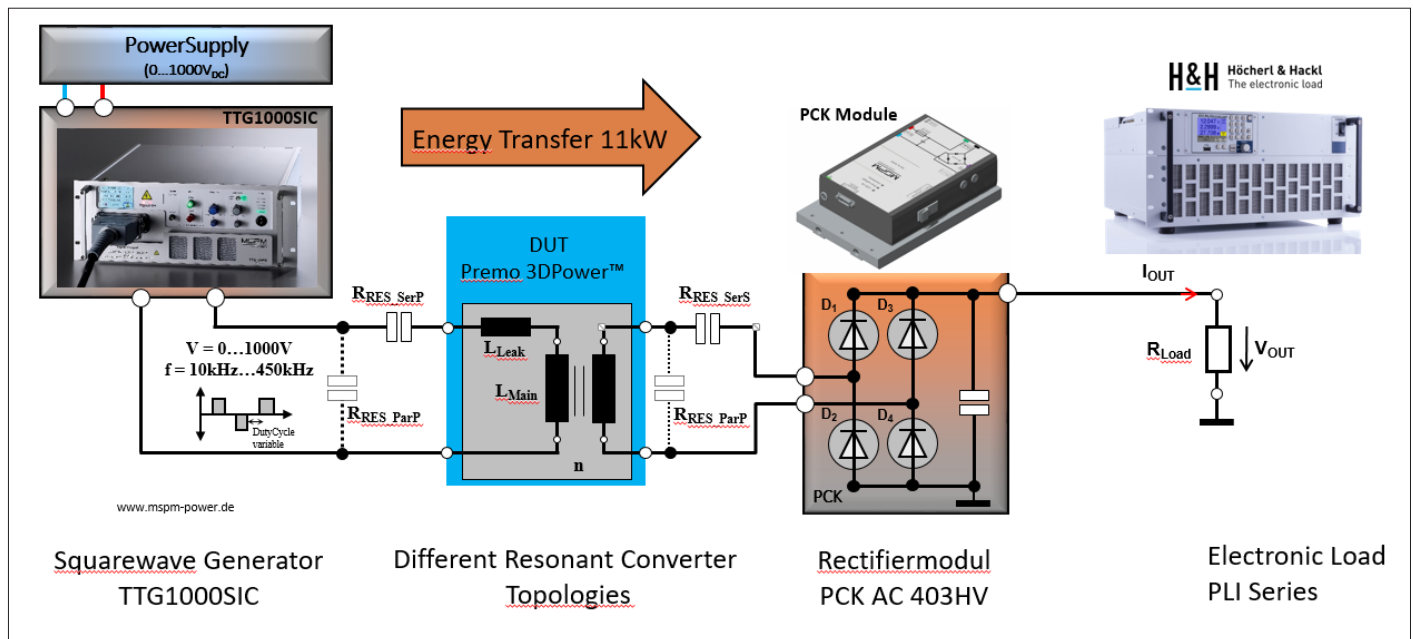
MSPM mainly develops systems for testing electronic components for e-mobility.

In their test equipment, they use electronic loads to simulate traction batteries in charging systems or consumers in electric vehicles.

To test electromagnetic components a test stand was built up as follows. See schematic at page 2.

A square wave generator is the main part of the test equipment. It generates the square wave signal of up to 1000 V. The square wave frequency can be set within a range of 10 to 450 kHz and it is also possible to set the duty cycle from 0 to 100 %. A full-wave rectifier module (PCK module) is connected to the secondary side of the transformer or the resonant circuit to convert the AC signal to a DC voltage which the electronic load of H&H PLI series loads. The electronic load works in constant current or resistance mode.

With this test setup it was easy to characterize the magnetic components under real-life conditions.



Test setup to characterize the magnetic components under real-life conditions