

## Optimization Potential for HV Vehicle Networks by System Simulation

Rosenberger brings the ZVEI guideline TLF0101 to life as one of the first suppliers and shows amazing optimization potentials for practice. The guide describes a standardized format for exchanging parameters of electro-thermal component models for the system simulation of the vehicle electrical network. This thermal optimization process can greatly reduce connector size and weight, wire cross-section, and development times depending on the installation situation.



The HV vehicle network can already be virtually dimensioned with this system simulation at the time of specification. The successive reduction of the cable cross-sections shows a considerable optimization potential - with the use of the Rosenberger HVS@240 connector with 50 mm<sup>2</sup> cross-section, for example, volume and weight savings of 30% as well as a reduction of the cable cross-sections of almost 50% could be achieved compared to the original design.

To verify the simulation models, Rosenberger and Leoni developed a demonstrator - consisting of cable, connector and power unit. In the process, the calculated saving potentials could be confirmed in practice.

On request, Rosenberger will provide these parameters in accordance with the ZVEI guideline for the HV product portfolio.

A whitepaper HV system simulation with detailed information is published here:  
[So lassen sich HV-Bordnetze nach ZVEI-Leitfaden thermisch optimieren \(all-electronics.de\)](https://www.all-electronics.de/so-lassen-sich-hv-bordnetze-nach-zvei-leitfaden-thermisch-optimieren)

### About Rosenberger

Rosenberger Hochfrequenztechnik GmbH & Co. KG was founded in 1958.

Rosenberger, a family owned company, ranks today among the world-wide leading manufacturers of standard and customer-specific connectivity solutions in high frequency, high voltage and fibre optic technology.

The product range covers RF coaxial connectors, RF test & measurement products, RF connectors and HV components for automotive electronics, medical and industrial electronics as well as fibre optic products, and cable assemblies. Renowned companies in high-tech industries, e.g. telecommunication, data systems, medical electronics, industrial electronics, test & measurement, aerospace engineering or automotive electronics trust the precision and quality of Rosenberger products.

Rosenberger is certified to IATF 16949:2016, DIN EN 9100, ISO 9001 and ISO 14001.

More than 2,400 people are employed today at the Rosenberger headquarters in Fridolfing/Tittmoning (Upper Bavaria, Germany). Worldwide, the Rosenberger group operates manufacturing and assembly

locations as well as Rosenberger sales offices in Europe, Asia and North and South America where – in total – approx. 11,800 employees develop, produce and sell our products.

**Contact:**

*Fritz Herrmann*

*Marketing Services*

*Phone +49 (0)8684 18-1263*

*e-mail: [fritz.herrmann@rosenberger.com](mailto:fritz.herrmann@rosenberger.com)*