
First use of new Siemens railway transformers in the Rhine valley network of DB Regio

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Siemens will use the new transformer type Tractronic® Thinity **for the first time in 24 articulated trains** based on the Mireo train platform. The railway transformer is a key component since it feeds the train's power supply and thus guarantees interference-free rail traffic.

Thanks to the new design, the transformer is considerably lighter and more efficient than existing models with the same rating. It also offers maximum flexibility for all installation situations with its intelligent construction. **Starting 2020**, the 24 Mireo trains will operate regional rail services (Regionalbahn RB) on the Offenburg – Freiburg – Basel/Neuchâtel (Switzerland) line, and on Sundays in the Kaiserstuhl from Freiburg to Endingen/Breisach. They will **cut travel time for this route by 30 minutes**.

“Through the use of new materials and thanks to our innovative cooling concept, the Tractronic® Thinity is a real lightweight,” said Beatrix Natter, CEO of Siemens Power Transformers. “With a weight saving of up to 25 percent, we’ve also been able to further reduce losses. That makes the Tractronic® Thinity the most efficient and flexible vehicle transformer on the market.”

Energy efficiency and flexibility are the key factors in operation. The improved efficiency of the transformers and the lightweight construction of the Mireo also **reduce the energy consumption of the train by 25%**. Because of its flexible design, the new train transformer can not only be roof-mounted but also installed underfloor, offering the operator the greatest possible flexibility. Various optimization measures on the active components, such as a special coating on the iron core, allow especially compact construction of the transformer. A groundwater-neutral and biologically degradable ester oil is used as insulation and as a cooling medium. The cooling concept has been optimized by the use of state-of-the-art 3D-CFX simulations, so that the use of coolant is reduced to a minimum. This not only has a positive impact on the weight but also significantly improves fire protection.

Traction transformers provide the power supply to all areas of a rail vehicle, and are thus essential for the proper functioning of, for example, brakes and traction unit.

They also ensure the function of lighting and ventilation systems as well as signaling technology and communications systems. Siemens is a leading manufacturer of traction transformers which are employed in all parts of the world. Production at five global Siemens locations under the lead management of the center of expertise in Nuremberg guarantees highest quality and reliability for trouble-free operation over many years.