

## **Włodzimierz Kruczek: Rectifier Devices in Electric Traction Power Supply Systems**

The article presents the development of the 3 kV DC traction power system, from the moment of launching the first traction power supply system on the railway line to modern times, paying special attention to the development of rectifier devices. The rectifier devices used in traction DC power supply systems and the principle of operation of individual rectifier devices are described. The requirements resulting from the regulations regarding the current traction rectifiers mounted in traction substations, supplying PKP PLK railway lines, are characterized. Some results of rectifier sets laboratory tests carried out in the Department of Electrical Power Engineering at the Railway Research Institute as well as technical and research possibilities in the field of rectifier tests are presented.

**Keywords:** DC traction, rectifier devices, traction rectifiers