

Title:

Power Electronic Concepts for Auxilliary Power Converter on Rolling Stock

Modern train concepts show an increasing electrical power demand for the auxiliary loads.

The design of an auxiliary power converter (APC) is mainly governed by topics like reliability, weight, ruggedness and of course costs.

The APC's main function is providing stabilized AC and DC output voltages out of the variable input voltage from the railway supply. To serve this function several power conversion stages are utilized.

This paper deals with some topologies which make use of high blocking voltage IGBT devices to fulfil the above mentioned demands.

It will be shown how 6.5kV IGBTs can be used in medium frequency converters.

Special attention will be put on protective measures which have to be realized to deal with the ambient conditions which are faced on rolling stock.

As Mr. Bachmann and Mr. Weber are in vacation in the July, the whole text of our presentation will be available until the end of July, is it acceptable for you?

Best regards,

Roman Heinrich