

عنوان مقاله:

A comparative Reliability Analysis Between Innovative And Non- Innovative Structure Of AC-Traction Drives

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خلاصه مقاله:

Several different type of railway traction electric power system configurations have been used through out the World. The choice of the system depends on the train service requirements, such as commuter rail, freight rail, light rail, train loads, and the electric utility power supply. The railway electrification load is one of the most difficult types of load to be fed by an electric utility and presents a challenge both for the railway company and the utility. The low-frequency line transformer in to-days ac rail vehicles suffers from poor efficiency and a substantial weight. Future traction drives may operate directly from the mains without this transformer. This paper evaluates, through a comparison with a conventional architecture, the reliability performance deriving from the adoption of a non-conventional conversion system. This allows the use of transformers of greatly reduced size. A feasible concept for a transformerless drive .system consists of series connected medium voltage converters applying modern HV-IGBTs

کلمات کلیدی:

AC-Traction Drives, power electronics , reliability

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