

Energy-saving Performance and the Principle of a Measure for Boosting the Input Voltage of the Traction Inverter Using the Energy Storage Equipment

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Recently, the regenerative brake has been widely spread. However, it is unusual that we can obtain sufficient brake force only with the regenerative brake at a high-speed region. It is because the motor voltage and the motor current are limited. In this paper, we discuss on a new measure for increasing the motor voltage by using the energy storage equipment. The energy storage equipment is series-connected to the traction inverter. According to the simulation results, the authors could obtain satisfactory operational performance, and estimated the energy-saving performance assuming the typical running curve.