State Monitoring Method for a Linear-Motor-Type Rail Brake using an Excitation Inverter

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So far, studies have been carried out on a rail brake applying linear induction motor technology. This brake is capable of generating braking forces without contact. In addition to the non-contact brake, no on-board power supply for energizing this brake is required by using dynamic braking. A practical application of this brake however desires a self-diagnosis method of the soundness of the device. Therefore, a state monitoring method for this brake using an excitation inverter was considered and examined on a test bench with a roller rig. These works clarified that the devised method is useful for self-diagnosis.