

**Study on the Miniaturization and Weight Reduction for the Application of
LIM-type Eddy-Current Rail Brakes to High-speed Trains**

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To apply LIM-type eddy-current rail brakes to high-speed trains, it is necessary to miniaturize the size and reduce the weight of its armatures that are mounted on bogies. In this paper, for this purpose, we consider reducing the volume of the iron core, because we take account of maintaining the braking performance in high-speed regions, which have a great effect on braking distance. Moreover, by electromagnetic field analysis, we verify the braking performance of such miniaturized armatures by comparing them with the armature developed that has fine performance in low-speed regions.