

Fundamental Examination of The Traction Motor Noise Evaluation Method Using Fluid Acoustic Analysis

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Realization of low noise characteristics of equipment including a drive system is called for in the conventional railway vehicle. Until now, with respect to realization of low noise characteristics of equipment of the self-ventilation type induction traction motor of a drive system, the reconstruction and measurement which use the actual system were respected. Accordingly the expense of the measure to realize low noise characteristics was large. Then, construction of a calculation model and a fundamental simulation using the fluid acoustic analysis tool, without making the actual system on an experimental basis, was tried. As a result, the tendency similar to measurement result and noise generation of the actual system was recognized. Here, the composition of a three-dimensional calculation model and a simulation, and analysis results are described.