

## **A Simplified Calculation Method of Energy Consumption for Railway Vehicles**

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It is very important to estimate the energy consumption of trains when promoting energy saving in railway vehicles. The energy consumption of a train can be estimated thorough measurements or numerical simulations. However, these methods require a lot of time and efforts. Therefore, we have developed a simplified calculation method that can estimate the energy consumption without numerical simulations. The comparison between the measurement results and the calculation results of the proposed method shows that the differences are less than 9%.