

# Development of High-efficiency bus-bar

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## Abstract

The bus-bar is used in various electronic parts. Consequently, the efficiency of a bus-bar is the problem that is very important from the viewpoint of energy saving.

The aim of this project is to develop a high efficiency bus-bar using the 3-D finite element method for the magnetic field analysis.

In this report, we clarify relations of the loss and the clearance of the bus-bar. In addition, we clarify the influence of layout of the bus-bar on the efficiency of the three-phase bus-bar and find out the most efficient layout.

**Keywords:** bus-bar, proximity effect, kin effect, magnetic field analysis, layout