Development of a Measure to Suppress Temperature Rising of Batteries Boarded on a Contact-wire-less LRV

Yoshiaki TAGUCHI Masamichi OGASA

Recently, a large-capacity secondary battery has been widely used for railway vehicles, automobiles, and so on. Especially, the Lithium-ion battery can be mounted in a small space because of its high energy density and power density. Railway vehicles require the large-capacity battery cells, whose temperature tends to rise easily. So, it is very important to suppress the temperature rising of on-board batteries, from the viewpoint of battery lifetime and safety operation. We developed a measure to determine a flow rate of cooling air, by measuring the temperature-rising characteristics under the various conditions. Based on the developed measure, we designed the battery modules boarded on a contact-wire-less LRV.