Flywheel Energy Storage System Using Superconducting Magnetic Bearings for Demonstration Tests

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Financially supported by New Energy and Industrial Technology Development Organization in Japan, Railway Technical Research Institute has developed flywheel energy storage system jointly with KUBOTEK, FURUKAWA ELECTRIC, MIRAPRO and YAMANASHI-KEN. We chose a flywheel system as a storage medium. The flywheel is because it's favorable to the life span, the cost, the capacity and the output. It stores energy in the form of kinetic energy. Therefore, there is no electrochemical damage. In this paper, after describing the effect of the flywheel energy storage system, we describe the details of the equipment for a demonstration test.