

The Analysis of Own Signals of PM Electrical Machines - Example of Eccentricity

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Abstract : This article presents a vibration diagnostic method designed for permanent magnets (PM) traction motors. Those machines are commonly used in traction drives of electrical vehicles. Specific structural properties of machines excited by permanent magnets are used in this method - electromotive force (EMF) generated due to vibrations. This work presents: field-circuit model, results of static tests, results of calculations and simulations.

Keywords : electrical vehicle, permanent magnet, traction drive, vibrations, electrical machine, eccentricity

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