

## Thermal Analysis of Permanent Magnet Synchronous Motor for High-Speed Rail.

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**초 록** - In this paper, a thermal analysis of permanent magnet synchronous motors is carried out using an equivalent thermal circuit model. Different power and speeds relating to the different working conditions of high-speed rail are evaluated. Heat sources, which are core loss of stator, rotor core and eddy current loss of permanent magnet, are calculated by a numerical method to enhance the accuracy of thermal estimation.

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