



# Numerical approach to loss minimization in an induction motor ☆

S. Sujitjorn \*, K.-L. Areerak

*School of Electrical Engineering, Suranaree University of Technology, Nakhon Ratchasima,  
111 University Avenue, Muang District, Nakhon Ratchasima 30000, Thailand*

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## Abstract

This paper describes a numerical approach to power-loss minimization in a fractional hp induction motor driven by a voltage-source inverter. The motor parameters are obtained from a genetic algorithm search. Optimum voltage and frequency excitations are arranged as a table for an energy-saving controller. The proposed method is useful under variable-torque load conditions. Simulation and experimental results are presented.

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