

عنوان مقاله:

Multi-Objective Modeling of Double Cage Induction Motors Parameters Estimation

محل انتشار:

دومین کنفرانس بین المللی مهندسی برق (سال: 1396)

تعداد صفحات اصل مقاله: 11

نویسندگان:

Mohammad Javad Amroony Boushehry - *Electrical Engineering Department of Azarbaijan Shahid Madani University, Tabriz, Iran*

Rahim Shamsi Varzeghan - *Electrical Engineering Department of Azarbaijan Shahid Madani University, Tabriz, Iran*

Mohammad Reza Jannati Oskuee - *Electrical Engineering Department of Azarbaijan Shahid Madani University, Tabriz, Iran*

Vahid Behjat - *Electrical Engineering Department of Azarbaijan Shahid Madani University, Tabriz, Iran*

خلاصه مقاله:

In this paper, for estimate the motor parameters more efficiently, several objectives are employed. several aspects of motor design are treated as objective functions. So, minimizing all the defined objectives simultaneously, results a considerable enhancement in motor design. In this regards, estimated parameters can be kept very closely to the standard manufacturer data. To optimize all the objective functions, simultaneously to the best possible condition NSGA II (Non-dominated Sorting Genetic Algorithm II) is used. One of the most important advantages of the proposed multi-objective procedure is that, it obtains several non-dominated solutions (pareto optima's) allowing the system operator (decision maker) to exercise his personal preference in selecting each of those solutions based on the operating conditions of the system. The practicality of the proposed method is acknowledged for two different motor ranges (5Hp and 40Hp motors). The provided solutions and given performance curves validates the accuracy of the obtained results.

کلمات کلیدی:

Double cage induction motor, parameter estimation, Multi-objective algorithm

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