

BULETINUL INSTITUTULUI POLITEHNIC din IAȘI
TOMUL LIV (LVIII), FASC. 4, 2008
ELECTROTEHNICĂ, ENERGETICĂ, ELECTRONICĂ

FEM ANALYSIS UPON THE INFLUENCE OF THE ROTOR BAR FAULTS ON THE INDUCTION MACHINE CHARACTERISTICS

BY

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Abstract. The paper presents an analysis of the influence of the rotor bar faults upon the operation characteristics of an induction motor. Several situations with different number of interrupted bars are taken into discussion. The study, which consists in a computer simulation based on finite element method, is mainly supported by the comparison of the mechanical characteristics, current density bar distribution and air-gap flux density.

Keywords: cage induction motor, rotor bar faults, FEM analysis.