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INFLUENCE OF THE COMPOLES UPON THE ELECTROMAGNETIC TORQUE DEVELOPED BY THE D.C. MOTOR

BY

***R. HANGANU, *Al. SIMION, *L. LIVADARU and *B. ANGHEL**

Abstract. The paper presents a simulation-based study upon the influence of the compoles on the air-gap flux density curve and the electromagnetic torque developed by a d.c. motor. As regards the rotor winding, both lap and wave types are taken into discussion. The influence of the variable air-gap under main poles is also analyzed. The results put in view the positive influence of the compoles only upon the commutation. The study is based on a FEM analysis.

Keywords: compoles, wave winding, lap winding, FEM analysis.