EMC Model of Low Voltage DC Motor

Abstract—**This paper proposes a high-frequency dynamic circuit network model of a DC motor for predicting conductive emissions in low-voltage automotive applications, and discusses a study in which this model was examined. The proposed model, which is based on a behavioral approach, introduces some physical features and phenomena of motor armature windings. Together with impedance characterization current model gives possibility to perform accurate transient analysis and describe complex commutation processes in motor during rotation.**