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COMPARATIVE ANALYSIS OF CHOSEN FIELD WEAKENING METHODS FOR THE SPACE VECTOR MODULATED - DIRECT TORQUE CONTROLLED DRIVE SYSTEM

This paper presents a new simple field weakening (FW) strategy for the Direct Torque Control (DTC) of the induction motor (IM). Based on the Space Vector Modulated - Direct Torque Control (SVM- DTC) scheme, an analysis and comparison of conventional ($1/\omega_m$) and proposed method are presented for a whole speed range including FW regions. The proposed strategy is verified through simulation with a 1.5 kW induction motor drive.

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