Title (en)
ELECTRIC MACHINE AND METHOD FOR REDUCING A COGGING TORQUE OF AN ELECTRIC MACHINE

Title (de)
ELEKTRISCHE MASCHINE UND VERFAHREN ZUR REDUKTION EINES RASTMOMENTS EINER ELEKTRISCHEN MASCHINE

Title (fr)
MACHINE ÉLECTRIQUE ET PROCÉDÉ SERVANT À RÉDUIRE UN COUPLE DE DÉTENTE D'UNE MACHINE ÉLECTRIQUE

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Abstract (en)
[origin: WO2011143683A1] The invention relates to a method for reducing a cogging torque of an electric machine, in particular a synchronous machine, comprising a rotor/actuator (2), a stator (4) spaced from the rotor/actuator (2) by a gap (3), at least one armature winding (6, 6', 6'') provided on the stator (4) and/or on the rotor/actuator (2), and an exciter part, which is provided on the stator (3) and/or on the rotor/actuator (2) and which produces an exciter field (13) having a fundamental wave in the gap. In order to create advantageous method conditions in order to reduce the cogging torque, a selection of at least one harmonic wave (14) from the harmonic waves (14) related to the fundamental wave (15) is made for the exciter field (13) in order to reduce the cogging torque. The at least one harmonic wave selected, when superposed with the fundamental wave (15), leads to an at least partial reduction of the cogging torque, and the selected wave (14) or selected waves is or are superposed with the fundamental wave (15).

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