

Title (en)

METHOD AND DEVICE FOR DIAGNOSING PHASE CURRENT SENSOR DEFECTS IN A SYSTEM FOR CONTROLLING A SYNCHRONOUS ROTARY ELECTRICAL MACHINE OF A MOTOR VEHICLE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR DIAGNOSE VON PHASENSTROMSENSORFEHLERN IN EINEM SYSTEM ZUR STEUERUNG EINER ELEKTRISCHEN DREHSYNCHRONMOTORS EINES KRAFTFAHRZEUGS

Title (fr)

PROCEDE ET DISPOSITIF DE DIAGNOSTIC DE DEFAUTS DE CAPTEURS DE COURANTS DE PHASES D'UN SYSTEME DE PILOTAGE D'UNE MACHINE ELECTRIQUE TOURNANTE SYNCHRONE DE VEHICULE AUTOMOBILE

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Application

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Abstract (en)

[origin: WO2016042238A1] The method according to the invention enables the diagnosis (15, 16) of phase current sensor defects in a system for controlling a synchronous rotary electrical machine of a motor vehicle. According to the invention, the method takes into account the differences (i_d , i_q) between measurements provided (14) by the sensors, and nominal values of the phase currents (i_a , i_b , i_c) in order to diagnose defects. Said differences are calculated (18) in a rotating Park reference frame (17) and are separate from an electromechanical model of the machine. The method detects sensor defects if the differences are substantially non-zero (19) and an offset sensor defect if a residual pulsation (ω_{res}) of the differences is substantially equal to a measured speed (ω) of the control system.

IPC 8 full level

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