

Title (en)

METHOD AND SYSTEM FOR CORRECTING A MEASURED WINDING TEMPERATURE OF AN ELECTRICAL MACHINE, IN PARTICULAR FOR AN ELECTRIC-PROPULSION OR HYBRID-PROPULSION VEHICLE

Title (de)

VERFAHREN UND SYSTEM ZUR KORREKTUR EINER GEMESSENEN WICKLUNGSTEMPERATUR EINER ELEKTRISCHEN MASCHINE, INSBESONDERE FÜR EIN ELEKTRO- ODER HYBRIDANTRIEBSFAHRZEUG

Title (fr)

PROCÉDÉ ET SYSTÈME DE CORRECTION DE TEMPÉRATURE MESURÉE DE BOBINAGE D'UNE MACHINE ÉLECTRIQUE, NOTAMMENT POUR UN VÉHICULE À PROPULSION ÉLECTRIQUE OU HYBRIDE

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Application

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Abstract (en)

[origin: WO2023275288A1] The invention relates to a method for correcting a temperature measurement of a winding (2) of an AC electrical machine (1), in particular of an electric-propulsion or hybrid-propulsion motor vehicle (6), which comprises constantly retrieving a measured temperature value (Tmes) of the winding (2) measured by a temperature sensor (5) located on the surface of the winding (2), a measured value of the speed of rotation (ω) of said electrical machine (1) measured by a position sensor (9), and a measured value of the effective current (I_{eff}) flowing through an inverter (7) controlling the electrical machine (1) measured by a current sensor (10), said method correcting the measured winding temperature value (Tmes) on the basis of the measured temperature (Tmes) and an estimate (Ptot) of the corrected total heat loss of the electrical machine, the estimate (Ptot) of the corrected total heat loss depending on an estimate (PJ) of the Joule-effect losses corrected on the basis of a correction of the heat losses due to the alternating nature of the electrical machine (1) and a correction of the heat losses due to the torque and the speed of rotation of the electrical machine (1).

IPC 8 full level

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