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(54) **METHOD OF UPDATING A THERMAL MODEL OF AN ELECTRIC MOTOR**

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(57) **ABSTRACT**

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A method of updating a thermal model describing the thermal behaviour of an electric motor having a stator provided with stator windings, the method including: a) injecting a current into the stator windings to heat the stator windings, b) obtaining temperature measurements over time from each of a plurality of temperature sensors distributed in the electric motor while step a) is being performed and the stator windings are heating up, or after step a) has been terminated or the current has been decreased, and the electric motor is cooling down, and c) updating parameter values of the thermal model based on the temperature measurements.

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