Title (en)
METHOD FOR OPERATING AN ELECTRIC DRIVE SYSTEM

Title (de)
VERFAHREN ZUM BETREIBEN EINES ELEKTRISCHEN ANTRIEBSSYSTEMS

Title (fr)
PROCÉDÉ POUR FAIRE FONCTIONNER UN SYSTÈME D'ENTRAÎNEMENT ÉLECTRIQUE

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Application
**EP 21754699 A 20210705**

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Abstract (en)
[origin: WO2022008413A1] The invention relates to a method for operating an electrical drive system of a motor vehicle (2) having a buffer battery (2.8) and a fuel cell (2.6) for providing electrical drive power. In the method, route data is determined and then consumption data is predicted on the basis of said route data. The invention is characterised in that, to optimise the operation of the fuel cell (2.6), a total energy requirement for the route is predicted on the basis of the predicted consumption data, after which an average fuel cell power is determined, which is needed, together with the energy stored in the buffer battery (2.8) at the start of the route, to define the total energy requirement over a constant power trajectory for the fuel cell (2.6). A check is then carried out as to whether limit values of the buffer battery (2.8) are violated while following the route with the power trajectory: If no limit value is violated, the fuel cell (2.6) is operated with the defined power trajectory; if a limit value is violated, the power of the fuel cell (2.6) is changed in the region of the violation of the limit value and then adjusted in order to achieve the average fuel cell power again over the total route, whereby a new power trajectory is defined. The check is then carried out again with the new power trajectory until a power trajectory without violation of limit values of the buffer battery (2.6) has been determined, according to which the fuel cell (2.6) is then operated.

IPC 8 full level
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