

Title (en)
THERMAL MANAGEMENT OF VEHICLE ENERGY STORAGE MEANS

Title (de)
WÄRMEVERWALTUNG VON ENERGIESPEICHERMITTELN EINES FAHRZEUGS

Title (fr)
GESTION THERMIQUE DE MOYENS DE STOCKAGE D'ÉNERGIE DE VÉHICULE

Publication
EP 4149788 A1 20230322 (EN)

Application
EP 21726880 A 20210514

Priority
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• EP 2021062868 W 20210514

Abstract (en)
[origin: GB2594979A] A thermal control apparatus 204 is configured for thermal control of an energy storage means 202 (e.g. battery) of a vehicle. A parameter is obtained by a control system 210. The parameter is indicative of a state of health (SOH) of the energy storage means, e.g. a measured variable, such as; capacity, power capability, internal resistance, self-discharge, or charge acceptance of the energy storage means. The control system controls operation of the thermal control apparatus in dependence on a difference between the parameter and a target (e.g.) If the parameter is below the target, a cooling performance of the energy storage means is increased in dependence on a size of the difference. The cooling performance may increase nonlinearly, as the difference increases. The target may be indicative of an expected SOH and may reduce in association with cumulative energy throughput of the energy storage means, which may be determined in dependence on mileage and/or time and/or charge cycles of the energy storage means. The thermal control apparatus may operate in: a relatively high-power cooling state, in which an energy-consuming thermal control component (e.g. refrigerant system 208) is operated; or a relatively low-power cooling state, in which a fan 206b may be operated and/or an active vane or vent 206a opened.

IPC 8 full level
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