

Title (en)
THERMAL MANAGEMENT SYSTEM FOR AN ELECTRIC VEHICLE, AND COMBINATION VALVE FOR A THERMAL MANAGEMENT SYSTEM

Title (de)
THERMOMANAGEMENTSYSTEM FÜR EIN ELEKTROFAHRZEUG UND KOMBINATIONSVENTIL FÜR EIN THERMOMANAGEMENTSYSTEM

Title (fr)
SYSTÈME DE GESTION THERMIQUE DESTINÉ AU VÉHICULE ÉLECTRIQUE ET SOUPAPE DE COMBINAISON POUR UN SYSTÈME DE GESTION THERMIQUE

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Abstract (en)
[origin: WO2023280442A1] The invention relates to a thermal management system for an electric vehicle, said thermal management system comprising: a battery circuit (2) having a first coolant pump (4) for a coolant, a battery (6), and a chiller (8); a drive circuit (10) having a second coolant pump (12) for the coolant, an electric motor (14), power electronics (16) for controlling the electric motor (14), and a heat sink (18) for dissipating heat to open surroundings; and a refrigerant circuit (20) for a refrigerant for controlling the temperature of an interior of the electric vehicle having a compressor (22), in each case for heat exchange with the interior, an interior condenser (24) and an interior evaporator (26), a condenser (28), at least one throttle (30, 32, 34), and the chiller (8) for heat exchange with the battery circuit (2), characterised in that the thermal management system is designed in such a way that the chiller (8), in relation to the battery circuit (2), can be operated both in a cooling mode for cooling the battery (6) and in a heating mode for heating the battery (6).

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