

Title (en)

HEATING AND DRYING DEVICE FOR USE IN MOTOR VEHICLES

Title (de)

HEIZ- UND TROCKNUNGSVORRICHTUNG ZUR VERWENDUNG IN KRAFTFAHRZEUGEN

Title (fr)

DISPOSITIF DE CHAUFFAGE ET DE SÉCHAGE DESTINÉ À ÊTRE UTILISÉ DANS DES VÉHICULES AUTOMOBILES

Publication

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Application

EP 15720649 A 20150423

Priority

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Abstract (en)

[origin: WO2015162222A1] The invention relates to: a heating and drying device (1) for use in a motor vehicle; a method for using a heating and drying device (1) of this type for increasing the temperature of an operating fluid (17) of the motor vehicle, and/or for drying the air of a motor vehicle cabin of the motor vehicle; and a heating and drying system having a heating and drying device (1) of this type for use in a motor vehicle. The heating and drying device comprises an adsorption unit (2) having an adsorbent (3) suitable for the reversible adsorption or desorption of water. A heat exchanger (15) is in heat-transferring contact with both the adsorbent (3) of the adsorption unit (2) and a waste heat source (16) that is active at least when the motor vehicle is in operation, and, in at least one operating state, the heat exchanger is designed to transfer heat from the waste heat source (16) to the adsorbent (3) of the adsorption unit (2). A valve unit (5) is designed to provide access paths for air to the adsorbent (3), and to control the access of the air to the adsorbent (3). The waste heat source (16) is formed by an operating fluid (17) of the motor vehicle, and the heat exchanger (15) is thereby also in heat-transferring contact with the operating fluid (17) of the motor vehicle, and, in at least one operating state, the heat exchanger is designed to transfer heat from the adsorbent (3) to the operating fluid (17) of the motor vehicle.

IPC 8 full level

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Citation (search report)

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