

Title (en)

LIQUID HEATING DEVICE FOR AN AUTOMOBILE

Title (de)

FLÜSSIGKEITSERHITZUNGSVORRICHTUNG FÜR EIN AUTOMOBIL

Title (fr)

DISPOSITIF DE CHAUFFAGE DE LIQUIDE POUR VEHICULE AUTOMOBILE

Publication

**EP 2324297 A1 20110525 (FR)**

Application

**EP 09811085 A 20090907**

Priority

- EP 2009006484 W 20090907
- FR 0804898 A 20080905

Abstract (en)

[origin: WO2010025955A1] The invention relates to a liquid heating device for an automobile that comprises at least one first part (1a) made of a heat-conducting material, a liquid flow path (10a) integrally formed in said first part (1a) for enabling a flow of liquid between an inlet and an outlet (12a), and a heating means (14) thermally coupled with said part (1a) and capable of heating said part (1a) so that the liquid flowing through said flow path can absorb the heat of said part (1a). According to the invention, the first part includes a planar bottom wall (15a) extending in a plane parallel to the flow path (10a), and the electric heating means includes a plurality of flat stones (14) having a positive temperature coefficient and arranged as a matrix in the same plane in parallel and in contact with the bottom wall (15a) as well as two electrodes in the form of two planar surfaces each arranged in parallel and in contact with the corresponding surfaces of the flat stones of the matrix.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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