

Title (en)

Heat exchanger, especially for a heater or air conditioner of a motor vehicle

Title (de)

Wärmetauscher, insbesondere für eine Heizungs- oder Klimaanlage

Title (fr)

Echanger de chaleur, en particulier pour un systeme de chauffage ou de climatisation d'un vehicule à moteur

Publication

EP 1687572 A2 20060809 (DE)

Application

EP 04797952 A 20041117

Priority

- EP 2004013036 W 20041117
- DE 10354384 A 20031120
- DE 10354385 A 20031120
- DE 10356108 A 20031127

Abstract (en)

[origin: WO2005050101A2] The invention relates to a heat exchanger (1), particularly for a heater or air conditioner of a motor vehicle, comprising several parallel flat tubes (2) through which a heat transfer medium flows. An electrically operated heating element (4) which is mounted following soldering of the heat exchanger (1) is assigned to at least some of the flat tubes (2) as an additional heating unit. Said heating element (4) is directly or indirectly fixed to the heat exchanger (1) while being formed at least in some areas by at least three different layers that are permanently interconnected across a large area thereof.

IPC 8 full level

F24H 3/04 (2006.01)

CPC (source: EP)

F24H 3/0405 (2013.01); **F24H 3/0429** (2013.01); **F24H 3/0435** (2013.01); **F24H 3/0441** (2013.01); **F24H 3/0447** (2013.01); **F24H 9/1872** (2013.01); **F28D 2021/0096** (2013.01)

Citation (search report)

See references of WO 2005050101A2

Cited by

FR3134675A1; WO2023198852A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005050101 A2 20050602; **WO 2005050101 A3 20051103**; DE 102004055523 A1 20050630; EP 1687572 A2 20060809; EP 1687572 B1 20141015; JP 2007511412 A 20070510

DOCDB simple family (application)

EP 2004013036 W 20041117; DE 102004055523 A 20041117; EP 04797952 A 20041117; JP 2006540305 A 20041117