

Title (en)
Heat exchange module, more particularly for automotive vehicle

Title (de)
Wärmeaustauschmodul, insbesondere für Kraftfahrzeug

Title (fr)
Module d'échange de chaleur, notamment pour véhicule automobile

Publication
EP 1128149 B1 20050323 (FR)

Application
EP 01104627 A 20010223

Priority
FR 0002453 A 20000228

Abstract (en)
[origin: KR20010085507A] PURPOSE: A heat-exchange module is provided which comprises a main exchanger and at least one secondary exchanger each including a generally flat body equipped with fluid-circulation tubes, and moreover comprises cooling fins, the secondary exchanger being fixed onto the main exchanger in such a way that the same airflow passes over the respective bodies of the exchangers. CONSTITUTION: A heat-exchange module has a main exchanger(1) and at least one secondary exchanger(12), each having a body with fluid-circulation tubes, and cooling fins, the secondary exchanger being fixed onto the main exchanger. The module includes a set of fins common to the main exchanger and to at least one secondary exchanger, these fins being mounted on the tubes of the main exchanger and projecting from this exchanger, the projecting parts of the fins including cut-outs for accommodating the tubes of the secondary exchanger. Fastenings secure the secondary exchanger in the position in which its tubes are engaged in the cut-outs.

IPC 1-7
F28D 1/04; **F28F 1/32**

IPC 8 full level
F28F 1/10 (2006.01); **F28D 1/04** (2006.01); **F28D 1/053** (2006.01); **F28F 1/32** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP KR US)
F28D 1/0435 (2013.01 - EP US); **F28F 1/10** (2013.01 - KR); **F28F 1/32** (2013.01 - EP US); **F28D 2021/0084** (2013.01 - EP US);
F28D 2021/0094 (2013.01 - EP US); **F28F 2009/004** (2013.01 - EP US); **F28F 2215/02** (2013.01 - EP US); **F28F 2215/12** (2013.01 - EP US)

Cited by
FR2856783A1; FR2832789A1; FR2849173A1; FR2832214A1; EP1892492A3; WO03046458A1; WO2004102103A3; WO03042619A1;
WO2004057257A3

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1128149 A1 20010829; **EP 1128149 B1 20050323**; AT E291727 T1 20050415; BR 0100791 A 20010925; BR 0100791 B1 20090113;
DE 60109510 D1 20050428; FR 2805605 A1 20010831; FR 2805605 B1 20020531; JP 2001263985 A 20010926; KR 20010085507 A 20010907;
MX PA01002121 A 20020820; US 2001047860 A1 20011206; US 6899167 B2 20050531

DOCDB simple family (application)
EP 01104627 A 20010223; AT 01104627 T 20010223; BR 0100791 A 20010223; DE 60109510 T 20010223; FR 0002453 A 20000228;
JP 2001055564 A 20010228; KR 20010009170 A 20010223; MX PA01002121 A 20010227; US 79439601 A 20010228