

Title (en)
Automotive air conditioning system evaporator

Title (de)
Verdampfer für Kraftfahrzeug-Klimaanlage

Title (fr)
Evaporateur pour système de conditionnement d'air pour véhicule automobile

Publication
EP 1070929 A2 20010124 (EN)

Application
EP 00115565 A 20000719

Priority
DE 19933913 A 19990720

Abstract (en)
The invention concerns an automotive air conditioning system evaporator (2) with an extended collector (4), whose collector cover is rounded for stability under pressure, divided internally across the collector into a first and a second compartment (8, 10), which are associated with an inlet and outlet for the evaporator coolant, and which exhibits divided transverse slots along its length, common to both compartments, in which is provided a flat pipe array (20), constructed for dual flow as a minimum, linked with each other by means of zigzag fins for the purpose of heat transfer, whose ends are at any given time inserted into a transverse slot in the collector cover in such a way, that one flow (22) in the flat pipes communicates with one compartment and the other flow (24) in the flat pipes (20) communicates with the other compartment. The invention provides for the first or second wall (32, 34) of both compartments (8, 10) formed by the collector cover at any given time to be configured as a rounded tube for pressure stability. <IMAGE>

IPC 1-7
F28F 9/02; **F28D 1/053**

IPC 8 full level
F28D 1/053 (2006.01); **F28F 1/02** (2006.01); **F28F 9/02** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP)
F28D 1/05391 (2013.01); **F28F 1/022** (2013.01); **F28F 9/0214** (2013.01); **F28F 9/262** (2013.01); **F28D 2021/0085** (2013.01); **F28F 2225/08** (2013.01)

Citation (applicant)
• US 5174373 A 19921229 - SHINMURA TOSHIHARU [JP]
• DE 9111412 U1 19911024
• EP 0414433 A2 19910227 - SHOWA ALUMINIUM CO LTD [JP]

Cited by
EP1460364A3; JP2013134016A; CN103277945A; EP1452814A4; CN104930758A; CN105020941A; US7650935B2; US7000690B2; US7234515B2; WO03054467A1; WO2005031236A3; WO2005015110A1; WO2004029533A1; EP1439365A2; EP3009780B2

Designated contracting state (EPC)
ES FR IT

DOCDB simple family (publication)
EP 1070929 A2 20010124; **EP 1070929 A3 20011114**; **EP 1070929 A4 20010924**; **EP 1070929 B1 20090107**; DE 19933913 A1 20010201; DE 19933913 C2 20030717; ES 2319610 T3 20090511

DOCDB simple family (application)
EP 00115565 A 20000719; DE 19933913 A 19990720; ES 00115565 T 20000719