

Title (en)

Condenser, in particular for an automobile air-conditioning circuit, and circuit comprising such a condenser

Title (de)

Kühler, insbesondere für einen Klimaanlage Schaltkreis eines Kraftfahrzeugs, und einen solchen Kühler umfassender Schaltkreis

Title (fr)

Condenseur, notamment pour un circuit de climatisation de véhicule automobile, et circuit comprenant ce condenseur

Publication

EP 1992891 B1 20170621 (FR)

Application

EP 08158983 A 20031031

Priority

- FR 0303055 W 20031031
- FR 0213671 A 20021031
- EP 03810494 A 20031031

Abstract (en)

[origin: FR2846733A1] The condenser for a motor vehicle air conditioning circuit has stacked plates (2) each with a raised peripheral lip (3) which are assembled and sealed to form multiple fluid passages between the plates for a refrigerating fluid (F2) and a coolant (F1). The plates have connecting passages (124) to allow the fluid to pass between the channels. Annular ducts (122) are provided opposite the passages to prevent mixing of the fluids.

IPC 8 full level

F25B 39/04 (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP US)

F25B 39/04 (2013.01 - EP US); **F28D 9/005** (2013.01 - EP US); **F25B 2339/043** (2013.01 - EP US); **F25B 2339/0441** (2013.01 - EP US); **F25B 2339/0443** (2013.01 - EP US); **F25B 2339/047** (2013.01 - EP US); **F28D 2021/0084** (2013.01 - EP US); **F28F 9/0246** (2013.01 - EP US)

Citation (opposition)

Opponent : MAHLE International GmbH

- WO 0188454 A1 20011122 - LLANELLI RADIATORS LTD [GB], et al
- WO 0187656 A1 20011122 - LLANELLI RADIATORS LTD [GB], et al
- FR 2758876 A1 19980731 - VALEO THERMIQUE MOTEUR SA [FR]
- EP 1065454 A1 20010103 - MODINE MFG CO [US]
- US 5129449 A 19920714 - NGUYEN DAM C [US]
- DE 4238853 A1 19940519 - BEHR GMBH & CO [DE]
- FR 2808869 A1 20011116 - SANDEN CORP [JP]
- DE 19830329 A1 19990114 - DENSO CORP [JP]
- DE 29624264 U1 20010816 - VOLKSWAGEN AG [DE]
- DE 10018478 A1 20011018 - BEHR GMBH & CO [DE]
- EP 1147930 A1 20011024 - MODINE MFG CO [US]
- EP 0583851 A2 19940223 - MODINE MFG CO [US]
- JP 2000258082 A 20000922 - SANYO ELECTRIC CO
- JP 2000356483 A 20001226 - NHK SPRING CO LTD

Cited by

DE102011007701A1; FR2952172A1; CN106103152A; US10625572B2; WO2018162062A1; WO2012143429A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

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DOCDB simple family (application)

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