

Title (en)

Room saving heat exchanger for three media

Title (de)

Raumsparender Wärmeaustauscher für drei Media

Title (fr)

Echangeur de chaleur à trois fluides d'encombrement réduit

Publication

EP 0719997 A1 19960703 (FR)

Application

EP 95120016 A 19951219

Priority

FR 9415652 A 19941226

Abstract (en)

The heat exchanger, e.g. for a vehicle passenger compartment air-conditioning system to exchange heat between a gas and two fluids passing round separate circuits, has a series of flat spaces (3) which alternate with a first and second series (1,2) of flat chambers, separated by heat-conducting walls (4,5). The two flat chambers between each pair of spaces are in direct thermal contact for virtually the whole of their surfaces, and the width of the spaces is determined by thin, corrugated heat-conducting panels (4) inside them. Each of the flat chambers is formed from two pressed sheet metal walls with facing cavities, sealed together round their edges. They can also be joined in an intermediate zone extending for part of their length.

Abstract (fr)

Le radiateur de chauffage et l'évaporateur du dispositif de climatisation de l'habitacle d'un véhicule sont réunis en un échangeur de chaleur unique, le fluide réfrigérant et le fluide de réchauffage circulant respectivement dans deux séries de pochettes plates (1, 2) qui sont empilées en alternance avec des intervalles (3) dans lesquels s'écoule l'air à traiter. <IMAGE>

IPC 1-7

F28D 1/03; **F28D 1/04**

IPC 8 full level

F28D 1/03 (2006.01); **F28D 1/04** (2006.01)

CPC (source: EP US)

F28D 1/0333 (2013.01 - EP US); **F28D 1/0461** (2013.01 - EP US); **F28D 2021/0085** (2013.01 - EP US); **F28D 2021/0096** (2013.01 - EP US)

Citation (applicant)

EP 0431917 A1 19910612 - SHOWA ALUMINIUM CO LTD [JP]

Citation (search report)

- [A] US 5180004 A 19930119 - NGUYEN HUNG P [US]
- [A] US 5186244 A 19930216 - JOSHI SHRIKANT M [US]
- [A] GB 2052722 A 19810128 - BORG WARNER

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EP0859209A4; DE19646349B4; US10215496B2

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EP 0719997 A1 19960703; **EP 0719997 B1 19981111**; DE 69505943 D1 19981217; DE 69505943 T2 19990415; ES 2124957 T3 19990216; FR 2728666 A1 19960628; FR 2728666 B1 19970214; US 5884696 A 19990323

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