

Title (en)

Refrigerant condensor for a vehicle air conditioner.

Title (de)

Verflüssiger für ein Kältemittel einer Fahrzeugklimaanlage.

Title (fr)

Condenseur de réfrigérant pour une installation de conditionnement d'air de véhicule.

Publication

EP 0401752 B1 19931208 (DE)

Application

EP 90110618 A 19900605

Priority

- DE 3918455 A 19890606
- DE 3938842 A 19891123

Abstract (en)

[origin: EP0401752A2] The invention relates to a condenser for a refrigerant of a vehicle air conditioner having ribbed heat-exchange tubes through which the refrigerant is guided in cross-flow with respect to incident ambient air, the heat-exchange tubes being arranged in a plurality of tube rows which are arranged one behind the other in the direction of incident flow of the ambient air and the respective heat-exchange tubes of which are connected in cross-counterflow, the tube rows being divided into a plurality of subassemblies (14, 16) which are arranged one behind the other in the direction of incident flow of the ambient air and the rib systems of which are decoupled as regards heat conduction, and the subassemblies (14, 16) being connected in series as regards the refrigerant, in counterflow to the direction of incident flow of the ambient air. According to the invention, adjacent subassemblies (14, 16) are connected mechanically via their rib system but the mean thermal conductivity λ_m in a connection zone between in each case two adjacent subassemblies (14, 16) is less than 20% of the thermal conductivity of the material of the rib system of the two adjacent subassemblies (14, 16). <IMAGE>

IPC 1-7

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IPC 8 full level

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Cited by

DE4220823C1; CN103471439A; EP0936432A4; FR2952172A1; EP0414433A3; EP0633435A1; CN106662406A; EP0845649A3; EP3252400A4; EP1416242A3; DE10227930A1; FR2952173A1; EP2330366A3; FR2758615A1; EP2927630A1; FR3019637A1; WO2014163559A1; WO2005066565A1; WO2015188812A1; EP2640585B1

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DOCDB simple family (application)

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