

Title (en)

Multi-pass heat exchanger, particularly for motor vehicles

Title (de)

Mehrere Durchgänge aufweisender Wärmetauscher, insbesondere für Kraftfahrzeuge

Title (fr)

Echangeur de chaleur multi-circuits, en particulier pour véhicule automobile

Publication

**EP 0984237 B1 20021218 (FR)**

Application

**EP 99117180 A 19990901**

Priority

FR 9811104 A 19980904

Abstract (en)

[origin: EP0984237A1] The heat exchanger has two circuits (C1, C2) formed by inner (14) and outer (16) U-shaped channels, and feed and return pipes (50, 52) linked to the channels to deliver identical or different fluids (F1). The channels are bounded by facing pairs of plates (12) and are connected through apertures (28, 32); in a variant they are formed by U-shaped tubes.

IPC 1-7

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

IPC 8 full level

**F28D 1/03** (2006.01); **F28D 1/04** (2006.01); **F28D 1/047** (2006.01)

CPC (source: EP)

**F28D 1/0341** (2013.01); **F28D 1/0461** (2013.01); **F28D 1/0475** (2013.01); **F28D 2021/0084** (2013.01); **F28D 2021/0094** (2013.01); **F28D 2021/0096** (2013.01)

Cited by

US2018043754A1; FR2831924A1; CN113734447A; US2016245560A1; CN107107708A; US10744856B2

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

**EP 0984237 A1 20000308**; **EP 0984237 B1 20021218**; DE 69904546 D1 20030130; DE 69904546 T2 20031002; ES 2189324 T3 20030701; FR 2783045 A1 20000310; FR 2783045 B1 20001124

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