

Title (en)  
Heat exchanger

Title (de)  
Wärmetauscher

Title (fr)  
Echangeur de chaleur

Publication  
**EP 1359383 A2 20031105 (DE)**

Application  
**EP 03009521 A 20030428**

Priority  
DE 10219870 A 20020503

Abstract (en)  
The heat exchanger (1) has a top header tank (2) with a partition running along its length dividing the inlet tank from the outlet tank. The inlet (10) and outlet (11) are situated in the top surface (2a) of the tank. The heat exchanger tubes (5) are set into the bottom surface (2b) of the header tank and have corrugated ribs. The tubes are of a flattened figure-of-eight configuration with the central portions pinched together. The fluid flows down one side of the tubes, does a U-turn in the bottom header tank (3), and comes up the other side to enter the outlet side of the top header tank.

Abstract (de)  
Wärmetauscher, insbesondere für Kraftfahrzeuge, mit einem Kühlmittelkasten (2,3), bestehend aus Rohrboden (2b,3b), Deckel (2a,3a) und Längstrennwand (7), die den Kühlmittelkasten in eine Eintritts- (8) und eine Austrittskammer (9) unterteilt, mit einem Wärmeübertrager-Netz, bestehend aus Flachrohren (5) und Wellrippen (6). <IMAGE>

IPC 1-7  
**F28D 1/053**

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

CPC (source: EP)  
**F28D 1/05391** (2013.01); **F28F 1/022** (2013.01); **F28D 2021/0096** (2013.01)

Citation (applicant)  
• DE 19752139 A1 19990527 - BEHR GMBH & CO [DE]  
• EP 0710811 A2 19960508 - NIPPON DENSO CO [JP]

Cited by  
CN109916193A; EP3001130A1; CN110701833A; WO2007042186A1

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)  
**EP 1359383 A2 20031105**; DE 10319226 A1 20031113; DE 10319226 B4 20211202

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