

Title (en)

COOLING MODULE WITH BY-PASS, IN PARTICULAR FOR A MOTOR VEHICLE

Title (de)

KÜHLMODUL MIT BYPASS, INSbesondere FÜR EIN KRAFTFAHRZEUG

Title (fr)

MODULE DE REFROIDISSEMENT A DERIVATION, NOTAMMENT POUR VEHICULE AUTOMOBILE

Publication

**EP 1611320 A2 20060104 (FR)**

Application

**EP 04742474 A 20040409**

Priority

- FR 2004000889 W 20040409
- FR 0304413 A 20030409

Abstract (en)

[origin: FR2853725A1] The module has an oil cooler with a body to delimit a fluid flow channel. The module houses a control valve movable between side duct and normal positions. Fluid to be cooled passes through a side duct channel without flowing into the flow channel when the fluid temperature is in an interval and vice versa in another interval when the valve is in side duct and normal positions, respectively. The side duct channel establishes a direct connection between an inlet and an outlet of the fluid to be cooled.

IPC 1-7

**F01M 5/00**

IPC 8 full level

**F01M 5/00** (2006.01); **F28D 9/00** (2006.01); **F28F 27/02** (2006.01)

CPC (source: EP)

**F01M 5/005** (2013.01); **F01M 5/007** (2013.01); **F28D 9/0043** (2013.01); **F28F 27/02** (2013.01); **F28F 2250/06** (2013.01)

Citation (search report)

See references of WO 2004092552A2

Cited by

EP4109029A1; US9550716B2; US10989481B2; WO2013091108A1; US9029607B2; US9982956B2; US10890389B2

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)

**FR 2853725 A1 20041015; FR 2853725 B1 20170609**; AT E491869 T1 20110115; DE 602004030547 D1 20110127; EP 1611320 A2 20060104; EP 1611320 B1 20101215; ES 2357952 T3 20110504; WO 2004092552 A2 20041028; WO 2004092552 A3 20051013

DOCDB simple family (application)

**FR 0304413 A 20030409**; AT 04742474 T 20040409; DE 602004030547 T 20040409; EP 04742474 A 20040409; ES 04742474 T 20040409; FR 2004000889 W 20040409