

Title (en)

A heat exchanger and a method of manufacturing thereof

Title (de)

Wärmetauscher und Verfahren zum Herstellen eines Wärmetauschers

Title (fr)

Échangeur de chaleur et son procédé de fabrication

Publication

**EP 1870658 A1 20071226 (EN)**

Application

**EP 06012575 A 20060620**

Priority

EP 06012575 A 20060620

Abstract (en)

The invention relates to a heat exchanger (1) including at least one heat exchanging core (3) and at least one manifold (2) formed as a stack of manifold modules (8) and fluidly connected with said at least one heat exchanging core (3). Each module (8) comprises the first face having a flat portion (11) provided with at least one convex portion (12) and/or at least one concave portion (22) and at least one recessed portion (17), and the second face having a flat portion (20) provided with at least one convex portion (12) and/or at least one concave portion (22) and at least one recessed portion (23), where the configurations of the first and the second faces of adjacent modules (8) are complementary and the recessed portions (17, 23) define the aperture for the heat exchanging tube (5). Further, the invention relates to a method of manufacturing such a heat exchanger.

IPC 8 full level

**F28F 9/02** (2006.01); **F28D 1/053** (2006.01)

CPC (source: EP)

**F28D 1/05358** (2013.01); **F28F 9/0202** (2013.01); **F28F 9/0221** (2013.01); **F28F 9/18** (2013.01); **F28F 2275/04** (2013.01); **F28F 2275/14** (2013.01)

Citation (applicant)

- US 6170567 B1 20010109 - NAKADA KEIICHI [JP], et al
- US 4969512 A 19901113 - HISAO AOKI [JP], et al
- US 6032728 A 20000307 - ROSS GARY R [US], et al
- DE 10112697 A1 20020919 - BEHR GMBH & CO [DE]
- DE 19859756 A1 20000720 - BEHR GMBH & CO [DE]
- DE 19524607 A1 19970109 - BEHR GMBH & CO [DE], et al
- US 2002023743 A1 20020228 - JUNG JONG DAE [KR], et al

Citation (search report)

- [XY] US 2002023743 A1 20020228 - JUNG JONG DAE [KR], et al
- [XY] DE 19859756 A1 20000720 - BEHR GMBH & CO [DE]
- [Y] FR 2756370 A1 19980529 - VALEO THERMIQUE MOTEUR SA [FR]
- [Y] DE 19524607 C2 19981203 - BEHR GMBH & CO [DE], et al
- [Y] US 6170567 B1 20010109 - NAKADA KEIICHI [JP], et al
- [Y] JP 2003287390 A 20031010 - MITSUBISHI ELECTRIC CORP
- [Y] US 5052478 A 19911001 - NAKAJIMA ICHIO [JP], et al

Cited by

FR2962200A1; FR2943776A1; FR3045805A1; FR3045800A1; CN110530178A; CN115200266A; WO2013040707A1; WO2010108992A1; WO2017109354A1; WO2017109349A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1870658 A1 20071226**

DOCDB simple family (application)

**EP 06012575 A 20060620**