Title (en)

HOLLOW PLATELET HEAT EXCHANGERS

Title (de)

HOHLSCHEIBEN-WÄRMETAUSCHER

Title (fr)

ECHANGEURS THERMIQUES A PLAQUETTES CREUSES

Publication

EP 2032928 A2 20090311 (FR)

Application

EP 07788872 A 20070612

Priority

- FR 2007000967 W 20070612
- FR 0605248 A 20060613

Abstract (en)

[origin: CA2654633A1] One of these heat exchangers (76) consists of a stack of thin-metal walle d hollow platelets (7S1-J5), 12 cm long and 5 wide. Each of these walls has a central region stiffened by alternating bosses with steep slopes, situated between two connection regions. Each wall is made by pressing then cutting an appropriate sheet of metal (aluminium 0.3 mm thick). The edges of the two fin walls form steps, symmetrically welded, the height of each step determi ning the internal half-thickness of a fin. Each platelet connection region e nds in a narrow mouth with a cross section that has the same surface area as the embossed central region, and is welded to the edges of a slot made in a n external manifold (80-82). The thickness of the internal channel of a plat elet is about 0.4 mm when the fluid concerned is a liquid (water) and that o f the spaces between the platelets is 7 mm when the other fluid is a gas (ai r). By hot pressing or thermoforming, sheets of glass or polymer may also be used but the performance is reduced.

IPC 8 full level

F28D 9/00 (2006.01); **F28D 1/03** (2006.01)

CPC (source: EP KR US)

F28D 1/03 (2013.01 - KR); **F28D 1/0316** (2013.01 - EP US); **F28D 9/00** (2013.01 - KR); **F28F 3/04** (2013.01 - KR); **F28F 3/042** (2013.01 - EP US)

Citation (search report)

See references of WO 2007144498A2

Cited by

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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 MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

FR 2902183 A1 20071214; AT E442564 T1 20090915; AU 2007259127 A1 20071221; AU 2007259127 A8 20090122; BR PI0714038 A2 20131217; CA 2654633 A1 20071221; CN 101466993 A 20090624; DE 602007002409 D1 20091022; EP 2032928 A2 20090311; EP 2032928 B1 20090909; ES 2333486 T3 20100222; JP 2009540264 A 20091119; KR 20090048433 A 20090513; MX 2008015912 A 20090114; RU 2008152225 A 20100810; RU 2413152 C2 20110227; US 2010012303 A1 20100121; WO 2007144498 A2 20071221; WO 2007144498 A3 20080207

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