

Title (en)
Core structure of heat exchanger

Title (de)
Wärmetauscherblock

Title (fr)
Structure du cœur d'un échangeur de chaleur

Publication
EP 1804013 A1 20070704 (EN)

Application
EP 06127250 A 20061227

Priority
JP 2005373843 A 20051227

Abstract (en)
A core structure includes a plurality of flat tubes (5) and a plurality of corrugated inner fins (10; 20; 30). Each corrugated inner fin (10; 20; 30) has top portions (10a) for being fixed to an inner surface of an upper wall portion (5a) of the tube (5), bottom portions (10b) for being fixed to an inner surface of the lower wall portion (5b) thereof, and slanted portions (10c) for connecting the top portion (10a) with adjacent bottom portions (10b) thereof. The corrugated inner fin (10; 20; 30) has first corrugations (N1; N4) located at both end sides of the corrugated inner fin (10; 20; 30) and second corrugations (N2; N5) located between the first corrugations (N1), where each of the first and the second corrugations (N1, N2; N4, N5) have the top portion (10a) and the adjacent slanted portions (10c) and project from the bottom portions (10b). The first corrugations (N1; N4) have is set to be smaller in a front-back directional length of the corrugated inner fin (10; 20; 30) than a front-back directional length of the second corrugations.

IPC 8 full level
F28F 1/40 (2006.01); **F28D 1/053** (2006.01)

CPC (source: EP US)
F28D 1/0391 (2013.01 - EP US); **F28F 3/025** (2013.01 - EP US); **F28D 1/05366** (2013.01 - EP US); **F28F 1/40** (2013.01 - EP US)

Citation (search report)
• [A] WO 9215833 A1 19920917 - MODINE MFG CO [US]
• [A] JP H10153394 A 19980609 - SANDEN CORP
• [A] EP 1482269 A2 20041201 - TREFIMETAUX S A [FR]

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CN103292521A; CN106568188A

Designated contracting state (EPC)
DE FR GB

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AL BA HR MK YU

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EP 1804013 A1 20070704; JP 2007178010 A 20070712; US 2007163768 A1 20070719

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