

Title (en)

Heat exchangers and air conditioning systems including such heat exchangers

Title (de)

Wärmetauscher und Klimaanlage mit solchen Wärmetauschern

Title (fr)

Echangeurs de chaleur et systèmes de conditionnement d'air utilisant de tels échangeurs

Publication

EP 1596146 A3 20061102 (EN)

Application

EP 05252699 A 20050429

Priority

JP 2004139608 A 20040510

Abstract (en)

[origin: EP1596146A2] A heat exchanger (1) including a pair of header pipes (2,3) and a plurality of heat transfer tubes (4) extending between and placing the header pipes (2,3) in communication and extending in parallel to each other to form a parallel-flow type heat exchanger core (13). The heat exchanger core (13) is bent, so that relative to a center portion of the core, at least one header pipe (3) is offset in the direction of air flow across the heat exchanger (1). The offset disposition of a larger header pipe may be achieved without increasing a tube insertion length into the header pipe or the reduction or elimination of liquid storing and moisture reducing unit contained in the header pipe.

IPC 8 full level

B60H 1/32 (2006.01); **F28D 1/053** (2006.01); **F25B 39/04** (2006.01); **F28D 1/04** (2006.01); **F28D 1/047** (2006.01); **F28F 9/02** (2006.01); **F25B 40/02** (2006.01)

CPC (source: EP US)

F25B 39/04 (2013.01 - EP US); **F28D 1/0435** (2013.01 - EP US); **F28D 1/0471** (2013.01 - EP US); **F28D 1/0535** (2013.01 - EP US); **F28F 9/0243** (2013.01 - EP US); **F25B 40/02** (2013.01 - EP US); **F25B 2500/01** (2013.01 - EP US)

Citation (search report)

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- [X] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 11 30 September 1999 (1999-09-30)
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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 MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR LV MK YU

DOCDB simple family (publication)

EP 1596146 A2 20051116; EP 1596146 A3 20061102; JP 2005321151 A 20051117; US 2005247439 A1 20051110

DOCDB simple family (application)

EP 05252699 A 20050429; JP 2004139608 A 20040510; US 12200005 A 20050505