

Title (en)
Heat exchanger assembly having split mini-louvered fins

Title (de)
Wärmetauscheranordnung mit geteilten eingeschlitzten Mini-Rippen

Title (fr)
Ensemble échangeur de chaleur à ailettes mini-lames fendues

Publication
EP 2778592 A1 20140917 (EN)

Application
EP 14159252 A 20140312

Priority
US 201313834355 A 20130315

Abstract (en)
A heat exchanger assembly is provided having at least one header, a plurality of spaced apart fluid tubes in hydraulic communication with the header, and a plurality of corrugated fins disposed between the tubes. The corrugated fins include a planar portion (154) having a louver segment (162) defined between a pair of primary slits (164), in which the louver segment (162) includes an intermediate slit (165) splitting the louver segment (162) into a pair of mini-louvers (176, 178). The mini-louvers (176, 178) are counter-offset such that one of the mini-louvers (176, 178) is on one side of the planar portion (154) and the other one of the mini-louvers (176, 178) is on the other side of the planar portion (154). The mini-louvers (176, 178) may be pivoted about their respective junctures such that each of the mini-louver (176, 178) is oblique relative to the planar portion (154).

IPC 8 full level
F28F 1/00 (2006.01); **F28D 1/053** (2006.01); **F28F 1/12** (2006.01)

CPC (source: EP US)
F28F 1/128 (2013.01 - EP US); **F28D 1/05366** (2013.01 - EP US)

Citation (search report)
• [X] US 2009173479 A1 20090709 - HUANG LIN-JIE [US]
• [X] WO 2005075917 A1 20050818 - CALSONIC KANSEI UK LTD [GB], et al
• [A] US 2006157233 A1 20060720 - OZAKI TATSUO [JP], et al

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US10094624B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
US 2013199760 A1 20130808; BR 102014006089 A2 20150519; BR 102014006089 A8 20170704; CN 104048522 A 20140917; CN 104048522 B 20171212; EP 2778592 A1 20140917; EP 2778592 B1 20160309; KR 20140113418 A 20140924

DOCDB simple family (application)
US 201313834355 A 20130315; BR 102014006089 A 20140314; CN 201410095606 A 20140314; EP 14159252 A 20140312; KR 20140028892 A 20140312