

Title (en)
LAMINATED MICROCHANNEL HEAT EXCHANGERS

Title (de)
LAMINIERTE MIKROKANAL-WÄRMETAUSCHER

Title (fr)
ÉCHANGEURS DE CHALEUR À MICROCANAUUX STRATIFIÉS

Publication
EP 3446059 A4 20200101 (EN)

Application
EP 17786489 A 20170418

Priority
• US 201662324327 P 20160418
• US 201715402511 A 20170110
• US 2017028183 W 20170418

Abstract (en)
[origin: WO2017184635A1] In one general aspect, a microchannel heat exchanger is disclosed. It includes a cover, a base, and thermally conductive sheets between the cover and the base that each define a series of side -by-side lanes aligned with a flow direction. The lanes each include aligned slots that define microchannel segments and are separated by cross ribs. The sheets are stacked between the base and cover so as to cause at least some of the ribs to be offset from each other and allow the microchannel segments in the same lane in adjacent sheets to communicate with each other along the flow direction to define a plurality of microchannels in the heat exchanger.

IPC 8 full level
F28D 9/00 (2006.01); **B81B 1/00** (2006.01)

CPC (source: EP KR)
F28D 15/0233 (2013.01 - EP KR); **F28F 3/086** (2013.01 - EP KR); **F28F 7/02** (2013.01 - EP KR); **F28F 13/06** (2013.01 - EP KR);
F28D 2021/0028 (2013.01 - EP KR); **F28F 2260/02** (2013.01 - EP KR); **F28F 2265/24** (2013.01 - EP KR)

Citation (search report)
• [X] US 9310135 B1 20160412 - FARBER NATHANIEL [US], et al
• [X] FR 2763204 A1 19981113 - FERRAZ [FR]
• [X] US 5423376 A 19950613 - JULIEN JEAN-NOEL [FR], et al
• See also references of WO 2017184635A1

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

DOCDB simple family (publication)
WO 2017184635 A1 20171026; CN 109416224 A 20190301; CN 109416224 B 20220506; EP 3446059 A1 20190227; EP 3446059 A4 20200101;
EP 3446059 B1 20240626; IL 263805 A 20190331; KR 102494649 B1 20230131; KR 20190016489 A 20190218

DOCDB simple family (application)
US 2017028183 W 20170418; CN 201780037866 A 20170418; EP 17786489 A 20170418; IL 26380518 A 20181218;
KR 20187033234 A 20170418