

Title (en)

MULTI-PASS AND MULTI-SLAB FOLDED MICROCHANNEL HEAT EXCHANGER

Title (de)

GEFALTETER MIKROKANALWÄRMETAUSCHER MIT MEHREREN DURCHGÄNGEN UND PLATTEN

Title (fr)

ÉCHANGEUR DE CHALEUR À MICRO-CANAUx PLIÉ À PASSAGES MULTIPLES ET PLAQUES MULTIPLES

Publication

EP 3221656 A1 20170927 (EN)

Application

EP 15797809 A 20151113

Priority

- US 201462080741 P 20141117
- US 2015060607 W 20151113

Abstract (en)

[origin: WO2016081306A1] A heat exchanger is provided including a first manifold and a second manifold separated from one another. A plurality of tube segments arranged in a spaced parallel relationship fluidly couple the first and second manifold. The plurality of tube segments includes a bend defining a first slab and a second slab. The second slab is arranged at an angle to the first slab. The heat exchanger has a multi-pass configuration relative to an air flow including at least a first pass and a second pass. The first pass has a first flow orientation and the second pass has a second flow orientation. The second flow orientation is different from the first flow orientation.

IPC 8 full level

F28F 9/02 (2006.01); **F28D 1/047** (2006.01); **F28F 1/02** (2006.01); **F28F 19/00** (2006.01)

CPC (source: CN EP RU US)

F25B 13/00 (2013.01 - CN EP US); **F25B 39/02** (2013.01 - RU); **F25B 47/006** (2013.01 - CN EP US); **F28D 1/0471** (2013.01 - RU); **F28D 1/0476** (2013.01 - CN EP US); **F28F 1/022** (2013.01 - CN EP US); **F28F 9/027** (2013.01 - CN EP US); **F28F 9/22** (2013.01 - RU); **F28F 19/006** (2013.01 - CN EP US); **F28F 1/025** (2013.01 - US); **F28F 9/0273** (2013.01 - US)

Citation (search report)

See references of WO 2016081306A1

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)

WO 2016081306 A1 20160526; CN 107110568 A 20170829; EP 3221656 A1 20170927; EP 3221656 B1 20201028; ES 2831020 T3 20210607; RU 2017118516 A 20181219; RU 2017118516 A3 20190807; RU 2722930 C2 20200604; US 2017343288 A1 20171130

DOCDB simple family (application)

US 2015060607 W 20151113; CN 201580062066 A 20151113; EP 15797809 A 20151113; ES 15797809 T 20151113; RU 2017118516 A 20151113; US 201515526917 A 20151113