

Title (en)

MICRO-CHANNEL STRUCTURE FOR HEAT EXCHANGER, AND INTEGRATED TYPE MICRO-CHANNEL HEAT EXCHANGER

Title (de)

MIKROKANALSTRUKTUR FÜR WÄRMETAUSCHER UND INTEGRIERTER MIKROKANALWÄRMETAUSCHER

Title (fr)

STRUCTURE DE MICRO-CANAL POUR ÉCHANGEUR DE CHALEUR ET ÉCHANGEUR DE CHALEUR À MICRO-CANAL DU TYPE INTÉGRÉ

Publication

EP 2878910 B1 20190731 (EN)

Application

EP 13796426 A 20130529

Priority

- CN 201210170804 A 20120529
- CN 201210170802 A 20120529
- CN 2013076409 W 20130529

Abstract (en)

[origin: EP2878910A1] The present invention discloses a micro-channel structure for a heat exchanger, and an integrated type micro-channel heat exchanger. The micro-channel structure is formed between multiple layers of heat exchange plates (1) arranged in a stacked manner, with a plurality of fin units (2) formed on the heat exchange plate (1), the fin units (2) are arranged uniformly into a plurality of fin unit groups (9) in the direction perpendicular to a flow direction of fluid, and the fin unit groups (9) are arranged in a staggered manner and spaced from one another by a distance in the flow direction of the fluid; a rear end of the fin unit (2) at the upstream side is arranged in an intermediate position between two adjacent fin units (2) at the downstream side; the fin unit (2) comprises at least two fins (21), with the adjacent fins (21) spaced from each other by a distance; and the fluid channels between the adjacent fin units (2) and between the adjacent fins (21) form the micro-channel structure. The integrated type micro-channel heat exchanger comprises multiple layers of heat exchange plates (1) arranged in a stacked manner, with the aforementioned micro-channel structure formed between the heat exchange plates (1).

IPC 8 full level

F28F 3/04 (2006.01)

CPC (source: EP US)

F28D 9/005 (2013.01 - EP US); **F28F 3/048** (2013.01 - EP US); **F28F 2250/02** (2013.01 - EP US); **F28F 2250/10** (2013.01 - EP US); **F28F 2260/02** (2013.01 - EP US)

Cited by

CN108106469A

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)

EP 2878910 A1 20150603; **EP 2878910 A4 20160608**; **EP 2878910 B1 20190731**; HU E046861 T2 20200330; JP 3197685 U 20150604; US 2015122467 A1 20150507; WO 2013178066 A1 20131205

DOCDB simple family (application)

EP 13796426 A 20130529; CN 2013076409 W 20130529; HU E13796426 A 20130529; JP 2015600028 U 20130529; US 201314404904 A 20130529