Title (en)

A CORE OF A HEAT EXCHANGER COMPRISING CORRUGATED FINS

Title (de)

KERN EINES WÄRMETAUSCHERS MIT GEWELLTEN RIPPEN

Title (fr)

NOYAU D'UN ÉCHANGEUR DE CHALEUR COMPRENANT DES AILETTES ONDULÉES

Publication

EP 3575728 B1 20201216 (EN)

Application

EP 18461562 A 20180530

Priority

EP 18461562 A 20180530

Abstract (en)

[origin: EP3575728A1] The invention relates to a core (2) of a heat exchanger (1), comprising oblate/flat pipes (4) for the flow of a heating medium and corrugated fins (5) located in contact with and between each pair of neighbouring pipes (4). The fins (5) comprise ridges (6) having a width (W) and forming channels for the flow of the heated medium. Each ridge (6) of a fin (5) is bent at least in one place along its width (W) in the direction transverse to its width (W) thus forming an offset (9) dividing the ridge (6) into two sections (20, 30) which are disposed one after the other in the width direction (W) of the ridge (6) and are translated in parallel to each other in the length direction (L) of the core (2) at a distance ΔL which is defined as a distance between the central planes (a, b) of the neighbouring sections (20, 30) of that ridge (6), wherein the central planes (a, b) of the sections (20, 30) are defined as planes through the centre of a crest (7) and at equal distances from the centres of troughs (8) of individual sections (20,30) of the ridge (6), and the distance ΔL of the parallel translation of the neighbouring sections (20, 30) relative to each other fulfils the following condition: $0 < \Delta L \leq fp/4$ where fp is the pitch of a corrugated fin (5) defined as a distance between troughs (8) of one ridge (6).

IPC 8 full level

F28F 1/12 (2006.01); **F28D 1/053** (2006.01)

CPC (source: EP)

F28D 1/05383 (2013.01); **F28F 1/128** (2013.01); F28F 2215/04 (2013.01)

Cited by

US2023039727A1; DE102022208567A1

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 3575728 A1 20191204; **EP 3575728 B1 20201216**; WO 2019229180 A1 20191205

DOCDB simple family (application)

EP 18461562 A 20180530; EP 2019064086 W 20190529