

Title (en)

Low pressure drop fin with selective micro surface enhancement

Title (de)

Rippe mit niedrigem Druckverlust mit selektiver Mikrooberflächenverbesserung

Title (fr)

Ailette à faible chute de pression avec amélioration de micro-surface sélective

Publication

**EP 2336701 A3 20170531 (EN)**

Application

**EP 10193609 A 20101203**

Priority

US 63684309 A 20091214

Abstract (en)

[origin: EP2336701A2] The assembly includes a heat exchanger assembly (20) including a plurality of tubes (32) extending between first and second manifolds. A plurality of fins (42) extend back and forth between and long the tubes (32) in a continuous patch and define a plurality of legs (48) extending between the tubes (32). Each of the legs (48) includes a plurality of front long louvers (52) for conveying a stream of air through the legs. Each of the legs further defines a plurality of main spoilers (56) between the front long louvers (52) and the back edges (44,46) of the legs (48) for inducing turbulence in the stream of air with each of the main spoilers (56) having a spoiler height in the range of 50 to 90 percent of the long louver height and each of the main spoilers (56) having a spoiler length in the range of 10 to 35 percent of the long louver length.

IPC 8 full level

**F28F 1/12** (2006.01)

CPC (source: EP US)

**F28F 1/128** (2013.01 - EP US); **F28F 2215/04** (2013.01 - EP US)

Citation (search report)

- [I] JP 3687876 B2 20050824
- [I] US 2002189799 A1 20021219 - OZAKI TATSUO [JP]
- [I] EP 1164345 A1 20011219 - DENSO CORP [JP]
- [A] KR 100833479 B1 20080529
- [A] JP S6159195 A 19860326 - TOYO RADIATOR CO LTD

Cited by

EP4023988A1; FR3013821A1; EP4023996A1; EP4023993A1; CN106816275A; FR3115099A1; CN106683832A; EP4023995A1; US10247481B2; US10337799B2; WO2018161419A1

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)

**EP 2336701 A2 20110622; EP 2336701 A3 20170531; EP 2336701 B1 20181024;** US 2011139414 A1 20110616

DOCDB simple family (application)

**EP 10193609 A 20101203;** US 63684309 A 20091214