

Title (en)
Spacer, fixing structure and heat exchanger

Title (de)
Abstandhalter, Befestigungsstruktur und Wärmetauscher

Title (fr)
Espaceur, structure de fixation et échangeur de chaleur

Publication
EP 2278253 B1 20160914 (EN)

Application
EP 10167210 A 20100624

Priority
JP 2009151220 A 20090625

Abstract (en)
[origin: US2010326639A1] A spacer includes a plane portion and at least one positioning portion. The plane portion is interposed between two pipe arrays stacked one another. Each of the two pipe arrays is formed by arranging at least one pipe along a plane which crosses a stacking direction of the two pipe arrays. The at least one positioning portion positions the at least one pipe in at least one of the two pipe arrays on the plane portion.

IPC 8 full level
F28F 9/013 (2006.01); **F28D 1/047** (2006.01); **F28D 7/02** (2006.01)

CPC (source: EP US)
F28D 1/0472 (2013.01 - EP US); **F28D 7/02** (2013.01 - EP US); **F28F 9/013** (2013.01 - EP US); **F28F 2240/00** (2013.01 - EP US); **F28F 2275/205** (2013.01 - EP US)

Citation (examination)
DE 2251866 A1 19740425 - BALCKE MASCHBAU AG

Cited by
EP2295914A3; EP2295913A3; WO2017177925A1

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 SE SI SK SM TR

DOCDB simple family (publication)
US 2010326639 A1 20101230; AU 2010202577 A1 20110120; AU 2010202577 B2 20150219; EP 2278253 A2 20110126; EP 2278253 A3 20110511; EP 2278253 B1 20160914; JP 2011007420 A 20110113; JP 4963126 B2 20120627

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