

Title (en)
HEAT EXCHANGER FOR AIR COOLING

Title (de)
WÄRMETAUSCHER FÜR LUFTKÜHLUNG

Title (fr)
ÉCHANGEUR DE CHALEUR POUR LE REFROIDISSEMENT DE L'AIR

Publication
EP 4212815 A1 20230719 (EN)

Application
EP 22151647 A 20220114

Priority
EP 22151647 A 20220114

Abstract (en)
The present invention relates to a heat exchanger (1) configured to cool an air flow, comprising a heat core (2) comprising air flow channels (4) defining liquid passes (24, 26, 28, 30) in between at least two air flow channels (4), said heat core (2) comprising a group of central liquid passes (26) and two lateral liquid passes (28, 30), said heat core (2) comprising a plurality of plates (12, 14, 16, 18), at least one of the plates (12) having a plane portion and a projection defining a liquid chamber (36) in liquid communication with the liquid passes (24, 26, 28, 30), the liquid chamber (36) having a first section covering at least one of the lateral liquid passes (28, 30) which is bigger than a second section covering at least one of the central liquid passes (26).

IPC 8 full level
F28F 9/00 (2006.01); **F02B 17/00** (2006.01); **F02B 29/04** (2006.01); **F28D 9/00** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP)
F02B 29/0462 (2013.01); **F28F 9/001** (2013.01); **F28F 9/0246** (2013.01); **F28D 7/1684** (2013.01); **F28D 9/0031** (2013.01); **F28D 2021/0082** (2013.01)

Citation (search report)
• [A] EP 3246647 A1 20171122 - BORGWARNER EMISSIONS SYSTEMS SPAIN SLU [ES]
• [A] DE 112018001666 T5 20200130 - DENSO CORP [JP]
• [A] DE 102014213718 A1 20160121 - MAHLE INT GMBH [DE]
• [A] EP 3388773 A1 20181017 - VALEO AUTOSYSTEMY SP ZOO [PL]

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4212815 A1 20230719; WO 2023134944 A1 20230720

DOCDB simple family (application)
EP 22151647 A 20220114; EP 2022085734 W 20221213