

Title (en)

HEAT EXCHANGER, OUTDOOR UNIT, AND REFRIGERATION CYCLE DEVICE

Title (de)

WÄRMETAUSCHER, AUSSENEINHEIT UND KÄLTEKREISLAUFVORRICHTUNG

Title (fr)

ÉCHANGEUR DE CHALEUR, UNITÉ EXTÉRIEURE ET DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication

EP 4083556 A4 20221214 (EN)

Application

EP 19957198 A 20191226

Priority

JP 2019051089 W 20191226

Abstract (en)

[origin: EP4083556A1] A heat exchanger includes a heat exchange module and a removing device. The heat exchange module includes a plurality of heat transfer tubes each of which allows a first heat exchange fluid to flow therethrough, and which are spaced from each other. The removing device is movable between adjacent ones of the plurality of heat transfer tubes in a first direction that is a flow direction of the first heat exchange fluid.

IPC 8 full level

F28D 1/053 (2006.01); **F25B 47/02** (2006.01); **F28F 17/00** (2006.01); **F28G 1/02** (2006.01); **F28G 1/16** (2006.01); **F28G 3/04** (2006.01)

CPC (source: EP)

F24F 11/42 (2018.01); **F28D 1/05366** (2013.01); **F28F 17/00** (2013.01); **F28F 19/006** (2013.01); **F28G 1/02** (2013.01); **F28G 1/08** (2013.01); **F28G 1/166** (2013.01); **F25B 13/00** (2013.01)

Citation (search report)

- [X] CN 106403067 A 20170215 - GREE ELECTRIC APPLIANCES INC ZHUHAI
- [X] JP 2009250517 A 20091029 - DAIKIN IND LTD
- [X] JP H0473723 U 19920629
- [X] CN 104930771 A 20150923 - GUANDONG MIDEA HVAC EQUIPMENT, et al
- [X] CN 201569228 U 20100901 - WENHE WANG
- [X] CN 209295497 U 20190823 - ZHUHAI ZHONGRUI ENVIRONMENTAL PROTECTION TECH CO LTD
- See also references of WO 2021130952A1

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 4083556 A1 20221102; **EP 4083556 A4 20221214**; JP 7224498 B2 20230217; JP WO2021130952 A1 20210701; WO 2021130952 A1 20210701

DOCDB simple family (application)

EP 19957198 A 20191226; JP 2019051089 W 20191226; JP 2021566678 A 20191226