

Title (en)
HEAT EXCHANGER AND AIR CONDITIONER

Title (de)
WÄRMETAUSCHER UND KLIMAANLAGE

Title (fr)
ÉCHANGEUR DE CHALEUR ET CLIMATISEUR

Publication
EP 3279598 A1 20180207 (EN)

Application
EP 16772077 A 20160303

Priority
• JP 2015069429 A 20150330
• JP 2016056675 W 20160303

Abstract (en)
Provided is a heat exchanger, including a plurality of flat tubes arranged in a right-and-left direction orthogonal to a front-and-back direction, the front-and-back direction being an airflow direction of the heat exchanger, a corrugated fin sandwiched by adjacent ones of the plurality of flat tubes and thermally connected to the adjacent ones of the plurality of flat tubes at each of apexes of the corrugated fin, an inlet header connected to one end of each of the plurality of flat tubes, and an outlet header connected to the other end of each of the plurality of flat tubes, the plurality of flat tubes extending along an up-and-down direction of the heat exchanger, the corrugated fin including a protruding portion protruding to a front side with respect to a front-side end portion of each of the plurality of flat tubes, the protruding portion including a first lug portion oriented obliquely to the front-and-back direction, the corrugated fin further including a second lug portion formed in the right-and-left direction at a part sandwiched by the adjacent ones of the plurality of flat tubes.

IPC 8 full level
F28F 1/30 (2006.01); **F24F 1/18** (2011.01); **F25B 39/02** (2006.01); **F28D 1/053** (2006.01); **F28F 1/32** (2006.01)

CPC (source: EP US)
F24F 1/18 (2013.01 - EP US); **F25B 39/02** (2013.01 - EP US); **F25B 39/022** (2013.01 - US); **F28D 1/053** (2013.01 - US); **F28D 1/05366** (2013.01 - EP US); **F28F 1/128** (2013.01 - EP US); **F28F 1/30** (2013.01 - US); **F28F 1/32** (2013.01 - US); **F28F 17/005** (2013.01 - EP US); **F28F 19/00** (2013.01 - EP US); **F28D 2021/0071** (2013.01 - EP US)

Cited by
EP3553448A1

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 3279598 A1 20180207; **EP 3279598 A4 20190102**; **EP 3279598 B1 20220720**; CN 107407534 A 20171128; JP 6165360 B2 20170719; JP WO2016158193 A1 20170427; US 2018100659 A1 20180412; WO 2016158193 A1 20161006

DOCDB simple family (application)
EP 16772077 A 20160303; CN 201680017676 A 20160303; JP 2016056675 W 20160303; JP 2016567268 A 20160303; US 201615560175 A 20160303