

Title (en)
HEAT EXCHANGER AND AIR CONDITIONER

Title (de)
WÄRMETAUSCHER UND KLIMAANLAGE

Title (fr)
ÉCHANGEUR DE CHALEUR ET CONDITIONNEUR D'AIR

Publication
EP 4155652 A1 20230329 (EN)

Application
EP 20937082 A 20200522

Priority
JP 2020020357 W 20200522

Abstract (en)
A heat exchanger includes a plurality of flat tubes in which refrigerant flows and a plurality of fins provided between the plurality of flat tubes and configured to transfer heat of refrigerant flowing in the plurality of flat tubes. An upstream end portion of each of the plurality of flat tubes in an air flow direction is located at the same position as an upstream end portion of each of the plurality of fins or protrudes farther than the upstream end portion of each of the plurality of fins, and an opening port is formed at the upstream end portion of each of the plurality of flat tubes or at the upstream end portion of each of the plurality of fins.

IPC 8 full level
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CPC (source: EP US)
F28D 1/05383 (2013.01 - EP); **F28D 7/1653** (2013.01 - US); **F28F 1/025** (2013.01 - EP); **F28F 1/04** (2013.01 - US); **F28F 1/128** (2013.01 - EP); **F28F 1/325** (2013.01 - EP); **F28F 9/02** (2013.01 - US); **F28F 17/005** (2013.01 - EP); **F28D 2021/0068** (2013.01 - EP); **F28F 2225/04** (2013.01 - EP); **F28F 2250/02** (2013.01 - EP); **F28F 2265/02** (2013.01 - EP)

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
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EP 20937082 A 20200522; CN 202080100232 A 20200522; JP 2020020357 W 20200522; JP 2022524852 A 20200522; US 202017911036 A 20200522