

Title (en)

HEAT EXCHANGER AND REFRIGERATION CYCLE APPARATUS

Title (de)

WÄRMETAUSCHER UND KÄLTEKREISLAUFGERÄT

Title (fr)

ÉCHANGEUR DE CHALEUR ET APPAREIL À CYCLE DE RÉFRIGÉRATION

Publication

EP 4160112 A4 20230726 (EN)

Application

EP 20938869 A 20200601

Priority

JP 2020021578 W 20200601

Abstract (en)

[origin: EP4160112A1] A heat exchanger includes a first header being configured to collect and deliver refrigerant and extending in a first direction, a second header being configured to collect and deliver refrigerant, being disposed at a position facing the first header and extending in the first direction, and a plurality of heat transfer components each extending from the first header to the second header and being provided at intervals along the first direction, wherein the heat transfer components each includes a heat transfer tube extending from the first header to the second header and allowing refrigerant to flow in its inside, and an extension portion being provided in each of the heat transfer tubes and configured to promote heat transfer property of the heat transfer tubes, and wherein the extension portion includes a base portion extending from the heat transfer tube in a second direction in which air that flows between the plurality of heat transfer tubes flows, and a spacer portion extending from the base portion in the first direction and abutting the adjacent heat transfer component.

IPC 8 full level

F25B 39/00 (2006.01); **F28D 1/053** (2006.01); **F28F 1/02** (2006.01); **F28F 1/16** (2006.01); **F28F 1/20** (2006.01); **F28F 1/22** (2006.01)

CPC (source: EP US)

F25B 39/00 (2013.01 - EP US); **F28D 1/053** (2013.01 - US); **F28D 1/05383** (2013.01 - EP); **F28F 1/02** (2013.01 - EP US);
F28F 1/16 (2013.01 - EP US); **F28F 1/20** (2013.01 - EP); **F28F 1/22** (2013.01 - EP)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 2021245734A1

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)

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US 2023175747 A1 20230608; WO 2021245734 A1 20211209

DOCDB simple family (application)

EP 20938869 A 20200601; CN 202080101390 A 20200601; JP 2020021578 W 20200601; JP 2022529136 A 20200601;
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