

Title (en)

HEAT EXCHANGER AND REFRIGERATION CYCLE DEVICE

Title (de)

WÄRMETAUSCHER UND KÄLTEKREISLAUFVORRICHTUNG

Title (fr)

ÉCHANGEUR DE CHALEUR ET DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication

EP 4368919 A1 20240515 (EN)

Application

EP 21949289 A 20210707

Priority

JP 2021025605 W 20210707

Abstract (en)

A heat exchanger (HE) includes: a first heat transfer portion (31a) having a plurality of first heat transfer tubes (31); a second heat transfer portion (32a) having a plurality of second heat transfer tubes (32); and a zeotropic refrigerant flowing through the plurality of first heat transfer tubes (31a) of the first heat transfer portion (31) and the plurality of second heat transfer tubes (32a) of the second heat transfer portion (32). The plurality of first heat transfer tubes (31a) of the first heat transfer portion (31) and the plurality of second heat transfer tubes (32a) of the second heat transfer portion (32) are arranged in a line. The first heat transfer portion (31) and the second heat transfer portion (32) are configured to allow the zeotropic refrigerant to flow from the first heat transfer portion (31) and turn only once into the second heat transfer portion (32).

IPC 8 full level

F25B 39/04 (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP)

F25B 39/00 (2013.01); **F25B 39/04** (2013.01); **F28D 1/05391** (2013.01); **F28F 9/02** (2013.01); **F28F 1/022** (2013.01); **F28F 1/126** (2013.01); **F28F 1/32** (2013.01); **F28F 2215/00** (2013.01); **F28F 2270/00** (2013.01)

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 4368919 A1 20240515; CN 117581075 A 20240220; JP WO2023281655 A1 20230112; WO 2023281655 A1 20230112

DOCDB simple family (application)

EP 21949289 A 20210707; CN 202180100083 A 20210707; JP 2021025605 W 20210707; JP 2023532946 A 20210707