

Title (en)

INDOOR HEAT EXCHANGER AND AIR CONDITIONING DEVICE

Title (de)

INNENRAUMWÄRMETAUSCHER UND KLIMATISIERUNGSVORRICHTUNG

Title (fr)

ÉCHANGEUR DE CHALEUR INTÉRIEUR ET DISPOSITIF DE CONDITIONNEMENT D'AIR

Publication

EP 3745075 A4 20210106 (EN)

Application

EP 18901558 A 20181227

Priority

- JP 2018008352 A 20180122
- JP 2018048147 W 20181227

Abstract (en)

[origin: EP3745075A1] There is provided an indoor heat exchanger that includes a plurality of flat tubes capable of suppressing dispersion of dew condensation water, and an air conditioning apparatus. An indoor heat exchanger (51) to be used in an indoor unit (3) of an air conditioning apparatus (1) includes a plurality of flat tubes (55) that each include a flow channel (55c) for refrigerant and that are vertically juxtaposed, and a plurality of indoor fins (60) joined to the plurality of indoor flat tubes (55). The indoor fins (60) each include a vertically extending continuous portion (64) continuous with portions positioned between the indoor flat tubes (55) vertically juxtaposed. The relation of $4.0 \leq DP/HT \leq 10.0$ (HT represents the height of each flat tube (55), and DP represents the pitch of the indoor flat tubes (55) vertically juxtaposed) is satisfied.

IPC 8 full level

F28F 1/32 (2006.01); **F24F 1/0067** (2019.01); **F24F 1/0068** (2019.01); **F24F 13/22** (2006.01); **F28D 1/053** (2006.01); **F28F 1/02** (2006.01)

CPC (source: EP US)

F24F 1/0067 (2019.01 - EP US); **F24F 1/0068** (2019.01 - EP); **F24F 13/22** (2013.01 - EP); **F28D 1/024** (2013.01 - EP); **F28D 1/0471** (2013.01 - EP); **F28D 1/053** (2013.01 - EP US); **F28D 1/05391** (2013.01 - EP); **F28F 1/02** (2013.01 - EP); **F28F 1/32** (2013.01 - EP US); **F28F 1/325** (2013.01 - EP); **F28F 17/005** (2013.01 - EP); **F28D 2001/0273** (2013.01 - EP); **F28D 2021/0068** (2013.01 - EP); **F28F 2215/12** (2013.01 - EP)

Citation (search report)

- [X1] JP 2002139282 A 20020517 - MITSUBISHI ELECTRIC CORP
- [X1] JP 2010054060 A 20100311 - MITSUBISHI ELECTRIC CORP
- [A] JP 2012233680 A 20121129 - MITSUBISHI ELECTRIC CORP
- [A] EP 0633435 A1 19950111 - BORLETTI CLIMATIZZAZIONE [IT]
- See references of WO 2019142642A1

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 3745075 A1 20201202; **EP 3745075 A4 20210106**; **EP 3745075 B1 20230308**; CN 111630336 A 20200904; CN 111630336 B 20220816; ES 2941545 T3 20230523; JP 2019128060 A 20190801; JP 7092987 B2 20220629; US 2021041115 A1 20210211; WO 2019142642 A1 20190725

DOCDB simple family (application)

EP 18901558 A 20181227; CN 201880087296 A 20181227; ES 18901558 T 20181227; JP 2018008352 A 20180122; JP 2018048147 W 20181227; US 201816964027 A 20181227