

Title (en)

OUTDOOR UNIT FOR A HEAT PUMP HAVING A GRILLE

Title (de)

AUSSENEINHEIT FÜR EINE WÄRMEPUMPE UMFASSEND EIN SCHUTZGITTER

Title (fr)

UNITÉ EXTÉRIEURE POUR UNE POMPE À CHALEUR COMPRENANT UNE GRILLE

Publication

**EP 3705732 A1 20200909 (EN)**

Application

**EP 19161605 A 20190308**

Priority

EP 19161605 A 20190308

Abstract (en)

Outdoor unit (10) for a heat pump comprising a refrigerant circuit, the outdoor unit (10) comprising a casing (11), a fan (50) accommodated in the casing, the fan (50) having fan blades (55) rotatable about an axis of rotation (56), a grille (100) covering the fan blades (55), characterized in that at least an outer surface (101) of the grille is outwardly curved; the grille (100) is divided into a first area (A1) and a second area (A2), the first area (A1) being defined so that the distance (D) between the fan blades (55) and the outer surface (101) of the grille (100) is not more than a first threshold, and the second area (A2) being defined so that the distance (D) between the fan blades (55) and the outer surface (101) of the grille (100) is larger than the first threshold, wherein openings (102) are formed in the first (A1) and second (A2) areas of the grille (100), a smallest dimension of each of the openings (102) in the first area (A1) perpendicular to the axis of rotation (56) of the fan blades (55) is not more than a second threshold and a smallest dimension of at least some of the openings (102) in the second area (A2) perpendicular to the axis of rotation (56) of the fan blades (55) is larger than the second threshold.

IPC 8 full level

**F04D 29/70** (2006.01); **F04D 29/66** (2006.01); **F24F 1/56** (2011.01); **F24F 13/08** (2006.01)

CPC (source: EP)

**F04D 29/667** (2013.01); **F04D 29/703** (2013.01); **F24F 1/56** (2013.01); **F24F 13/082** (2013.01)

Citation (applicant)

EP 3348842 A1 20180718 - MITSUBISHI ELECTRIC CORP [JP]

Citation (search report)

- [XAI] JP 2010060217 A 20100318 - TOSHIBA CARRIER CORP
- [XAI] JP S5733339 Y2 19820722
- [A] JP H08247097 A 19960924 - TOSHIBA AVE KK, et al
- [A] FR 3013807 A1 20150529 - AIR LIQUIDE [FR]

Cited by

FR3119882A1

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

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**EP 3705732 A1 20200909**; **EP 3705732 B1 20230809**; WO 2020184494 A1 20200917

DOCDB simple family (application)

**EP 19161605 A 20190308**; JP 2020009891 W 20200306