

Title (en)

FAN BLOWER, INDOOR UNIT, AND AIR CONDITIONER

Title (de)

VENTILATORGEBLÄSE, INNENRAUMEINHEIT UND KLIMAANLAGE

Title (fr)

VENTILATEUR DE SOUFFLANTE, UNITÉ INTÉRIEURE, ET CLIMATISEUR

Publication

**EP 3916238 A4 20220119 (EN)**

Application

**EP 19910985 A 20190121**

Priority

JP 2019001661 W 20190121

Abstract (en)

[origin: EP3916238A1] A blower (100) includes: a motor (20) including a rotation shaft (21) and a drive unit (22); and a centrifugal fan (10) including a main plate (11) fixed to the rotation shaft (21), a side plate (13) having an annular shape and spaced apart from the main plate (11) in an extending direction in which the rotation shaft extends, and a plurality of vanes (12) disposed between the main plate (11) and the side plate (13). The main plate (11) has a protruding portion (16) disposed centrally in a radial direction and protruding toward the side plate (13) in the extending direction. The protruding portion (16) has a protruding surface (16a) and a recessed surface (16b) in which at least a part of the drive unit (22) is accommodated. A height (a) of the protruding portion (16) in the extending direction is less than a half of a width (b) of an air outlet (15) in the extending direction. A width (c) of a portion of the drive unit (22) in the extending direction that is disposed inside the recessed portion (19) is greater than a half of a width (d) of the drive unit (22) in the extending direction.

IPC 8 full level

**F04D 29/28** (2006.01); **F04D 25/06** (2006.01)

CPC (source: EP)

**F04D 25/0606** (2013.01); **F04D 29/281** (2013.01)

Citation (search report)

- [XY] KR 20070099367 A 20071009 - LG ELECTRONICS INC [KR]
- [Y] US 2002023728 A1 20020228 - KIKUCHI HITOSHI [JP], et al
- [Y] WO 2018130690 A1 20180719 - EBM PAPST MULFINGEN GMBH & CO KG [DE]
- [Y] US 2016146215 A1 20160526 - SGAMBATI STÉPHANE [FR]
- [Y] JP H09228992 A 19970902 - HITACHI LTD, et al
- See references of WO 2020152748A1

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 3916238 A1 20211201**; **EP 3916238 A4 20220119**; CN 113302401 A 20210824; CN 113302401 B 20230818; JP 7086229 B2 20220617; JP WO2020152748 A1 20211014; WO 2020152748 A1 20200730

DOCDB simple family (application)

**EP 19910985 A 20190121**; CN 201980088500 A 20190121; JP 2019001661 W 20190121; JP 2020567680 A 20190121