

Title (en)
AIR CONDITIONER OUTDOOR UNIT

Title (de)
AUSSENEINHEIT FÜR KLIMAANLAGE

Title (fr)
UNITÉ EXTÉRIEURE DE CLIMATISEUR

Publication
EP 4130588 A4 20231115 (EN)

Application
EP 21899646 A 20210831

Priority
• CN 202022893868 U 20201203
• CN 2021115715 W 20210831

Abstract (en)
[origin: EP4130588A1] An air conditioner outdoor unit, comprising a housing (1), a heat exchanger (2), a fan wheel (33), an electric motor (32) and a support (31), wherein the housing (1) is provided with a first cavity (11) and an air outlet (12) in communication with the first cavity (11); the heat exchanger (2) is arranged in the first cavity (11) and connected to the housing (1); in a horizontal direction, the heat exchanger (2) comprises a first portion (21) and a second portion (22) which are opposite each other, a minimum distance S being provided between the first portion (21) and the second portion (22); the support (31) is arranged in the first cavity (11), is connected to the housing (1), and is located above the heat exchanger (2); the electric motor (32) is in the first cavity (11) and is arranged on the support (31); the fan wheel (33) is in the first cavity (11), is connected to the electric motor (32), and has a diameter of D; and a first portion (311) of the support (31) is opposite the heat exchanger (2) in a vertical direction, the minimum distance between the first portion (311) and the heat exchanger (2) in the vertical direction is L1, and when $S < D$, $0 \leq L1 \leq 0.15D$. By means of the structure, air volume loss and aerodynamic noise caused by improper matching between the heat exchanger (2) and the support (31) can be reduced, such that the heat exchange performance is improved.

IPC 8 full level
F24F 1/06 (2011.01); **F24F 1/16** (2011.01); **F24F 1/38** (2011.01); **F24F 1/40** (2011.01); **F24F 1/50** (2011.01); **F24F 1/56** (2011.01)

CPC (source: EP US)
F24F 1/06 (2013.01 - EP); **F24F 1/16** (2013.01 - EP US); **F24F 1/38** (2013.01 - EP US); **F24F 1/40** (2013.01 - EP US);
F24F 1/50 (2013.01 - EP US); **F24F 1/56** (2013.01 - EP US)

Citation (search report)
• [XY] EP 2535660 A2 20121219 - SANYO ELECTRIC CO [JP]
• [XY] KR 20190141479 A 20191224 - LG ELECTRONICS INC [KR]
• [XY] CN 111486516 A 20200804 - QINGDAO HISENSE HITACHI AIR CONDITIONING SYSTEM CO LTD
• [XY] EP 2549194 A1 20130123 - SANYO ELECTRIC CO [JP]

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 4130588 A1 20230208; **EP 4130588 A4 20231115**; CN 214223261 U 20210917; US 2023160584 A1 20230525;
WO 2022116610 A1 20220609

DOCDB simple family (application)
EP 21899646 A 20210831; CN 202022893868 U 20201203; CN 2021115715 W 20210831; US 202117922963 A 20210831