

Title (en)

A HEAT PUMP WITH A BLADELESS FAN HEAT EXCHANGER

Title (de)

WÄRMEPUMPE MIT EINEM SCHAUFELLOSEN GEBLÄSEWÄRMETAUSCHER

Title (fr)

POMPE À CHALEUR AVEC UN ÉCHANGEUR DE CHALEUR À VENTILATEUR SANS PALES

Publication

**EP 4365503 A1 20240508 (EN)**

Application

**EP 23202106 A 20231006**

Priority

IT 202200022833 A 20221107

Abstract (en)

A heat exchanger (100) in an external unit of a heat pump (1), comprises a heat exchange unit (102), an air conveyor (105) operable to convey an air flow through an air channel system (104) of the heat exchange unit (102), wherein the air conveyor (105) comprises a conveying channel (106) with an annular outlet slot (108), a driving air fan (109) for sucking a driving air flow (110) into the conveying channel (106) and expelling the driving air flow (110) from the conveying channel (106), through the annular outlet slot 108, in the form of an annular air blade so as to generate an aerodynamic depression which takes in a driven air flow (113) with a higher flow rate than the flow rate of the driving air flow (110), wherein the outlet slot (108) is arranged at the heat exchange unit (102), so that at least the driven air flow (113) crosses the air channel system (104).

IPC 8 full level

**F24F 11/41** (2018.01); **F24H 8/00** (2022.01)

CPC (source: EP)

**F24F 1/0018** (2013.01); **F24F 11/41** (2018.01); **F04D 25/08** (2013.01); **F04D 29/602** (2013.01)

Citation (search report)

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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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

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