

Title (en)
OUTDOOR UNIT OF HEAT-PUMP-TYPE WATER HEATER

Title (de)
AUSSENTÜREINHEIT EINES WÄRMEPUMPENDURCHLAUFERHITZERS

Title (fr)
UNITÉ EXTÉRIEURE DE CHAUFFE-EAU DE TYPE À POMPE À CHALEUR

Publication
EP 3608602 A4 20200325 (EN)

Application
EP 17904729 A 20170404

Priority
JP 2017014048 W 20170404

Abstract (en)
[origin: EP3608602A1] A heat-pump hot water dispenser's outdoor unit (2) includes an air heat exchanger (7); a compressor (10); a water heat exchanger (4); an expansion valve; a fan (8) that moves air outside the outdoor unit (2) into the air heat exchanger (7); a motor that rotates the fan (8); a power device (16) used for driving the compressor (10); a heat sink (15) located in a space (42) that is an extension portion beyond the air heat exchanger (7), of a channel (41) of air moved by rotation of the fan (8) during heating of the water from outside the outdoor unit (2) into the air heat exchanger (7), where the heat sink (15) dissipates heat generated by the power device (16) during driving of the compressor (10); and a control unit that provides control, upon completion of a water heating operation, to drive the compressor (10), to open the expansion valve, and to rotate the fan (8) in the same direction as the rotation direction of the fan (8) during heating of the water.

IPC 8 full level
F24H 4/04 (2006.01); **F24F 1/24** (2011.01); **F24F 1/38** (2011.01); **F24F 11/74** (2018.01); **F24H 9/20** (2006.01)

CPC (source: EP US)
F24D 19/1054 (2013.01 - EP US); **F24F 1/24** (2013.01 - EP); **F24F 1/38** (2013.01 - EP); **F24H 4/04** (2013.01 - EP US); **F24H 9/2007** (2013.01 - EP US); **F24H 15/20** (2022.01 - EP US); **F24H 15/258** (2022.01 - EP US); **F24H 15/375** (2022.01 - EP US); **F24H 15/38** (2022.01 - EP US); **F24H 15/385** (2022.01 - EP US); **F24H 15/421** (2022.01 - EP US); **F24H 15/486** (2022.01 - EP US); **F24D 17/02** (2013.01 - US); **F24D 2200/12** (2013.01 - US); **F24F 1/38** (2013.01 - US)

Citation (search report)

- [A] EP 2645017 A2 20131002 - MITSUBISHI ELECTRIC CORP [JP]
- [A] JP 2013170736 A 20130902 - MITSUBISHI ELECTRIC CORP
- [A] JP 2007187366 A 20070726 - MATSUSHITA ELECTRIC IND CO LTD
- [A] JP 2011007426 A 20110113 - HITACHI APPLIANCES INC
- See also references of WO 2018185826A1

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 3608602 A1 20200212; EP 3608602 A4 20200325; EP 3608602 B1 20201014; CN 110494699 A 20191122; CN 110494699 B 20210413; JP 6689452 B2 20200428; JP WO2018185826 A1 20190627; US 2020191435 A1 20200618; WO 2018185826 A1 20181011

DOCDB simple family (application)
EP 17904729 A 20170404; CN 201780089153 A 20170404; JP 2017014048 W 20170404; JP 2019510525 A 20170404; US 201716472448 A 20170404