

Title (en)
HEAT PUMP-TYPE WATER HEATER

Title (de)
WÄRMEPUMPENDURCHLAUFERHITZER

Title (fr)
CHAUFFE-EAU DU TYPE POMPE À CHALEUR

Publication
EP 2685177 A4 20140820 (EN)

Application
EP 12755362 A 20120309

Priority
• JP 2011052445 A 20110310
• JP 2012056161 W 20120309

Abstract (en)
[origin: EP2685177A1] Energy efficiency is improved. A heat pump water heater 1 includes: a heat pump unit 2 including a refrigerant circuit 3 in which a refrigerant condensing in a condenser 22 circulates; and a hot water storage tank 5 which stores hot water heated in the condenser 22. An operation mode is selectable from a circulation heating mode in which heated hot water is supplied to the hot water storage tank at a first flow rate, and a non-circulation heating mode in which heated hot water is supplied to a top portion of the hot water storage tank 5 at a second flow rate lower than the first flow rate. The operation mode is switched between the circulation heating mode and the non-circulation heating mode based on the temperature of the refrigerant supplied to the condenser 22.

IPC 8 full level
F24H 1/00 (2006.01); **F24D 17/02** (2006.01); **F24D 19/10** (2006.01); **F24H 4/04** (2006.01)

CPC (source: EP US)
F24D 17/02 (2013.01 - EP); **F24D 19/1054** (2013.01 - EP US); **F24H 4/04** (2013.01 - EP); **F24H 15/156** (2022.01 - EP US); **F24H 15/215** (2022.01 - EP US); **F24H 15/232** (2022.01 - EP US); **F24H 15/258** (2022.01 - EP US)

Citation (search report)
• [XAY] DE 10257431 A1 20030618 - DENSO CORP [JP]
• [XAY] EP 1162419 A1 20011212 - DENSO CORP [JP], et al
• [XAY] DE 102009017423 A1 20101021 - STIEBEL ELTRON GMBH & CO KG [DE]
• [YA] WO 2009069734 A1 20090604 - DAIKIN IND LTD [JP], et al
• See references of WO 2012121382A1

Cited by
FR3046218A1

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

DOCDB simple family (publication)
EP 2685177 A1 20140115; **EP 2685177 A4 20140820**; **EP 2685177 B1 20160504**; CN 103415747 A 20131127; CN 103415747 B 20160302; JP WO2012121382 A1 20140717; WO 2012121382 A1 20120913

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