

Title (en)
HEAT PUMP HOT WATER SUPPLY SYSTEM

Title (de)
WÄRMEPUMPEN-WARMWASSERVERSORGUNGSSYSTEM

Title (fr)
SYSTÈME D'ALIMENTATION EN EAU CHAUDE D'UNE POMPE À CHALEUR

Publication
EP 3306219 A4 20190213 (EN)

Application
EP 15893298 A 20150526

Priority
JP 2015065127 W 20150526

Abstract (en)
[origin: EP3306219A1] A heat pump hot-water supply system includes a heat pump water heater (100) including a main circuit (80), in which a compressor (1) configured to compress refrigerant, a gas cooler (2), a first solenoid valve (80V1), a regenerative heat exchanger (3), an expansion valve (4), and an air heat exchanger (5) are connected in the stated order, a hot-water supply tank (20) including a heat medium for exchanging heat with the refrigerant flowing through the gas cooler (2), and a heat storage tank (30) including a heat medium for exchanging heat with the refrigerant flowing through the regenerative heat exchanger (3). The heat pump water heater (100) includes a first bypass (81) formed to branch off the main circuit (80) at a first branching portion (81 a) located on an outlet side of the gas cooler (2) and an inlet side of the first solenoid valve (80V1), and to merge with the main circuit (80) at a first merging portion (81 b) located on an outlet side of the regenerative heat exchanger (3) and an inlet side of the expansion valve (4); and a control unit (50) configured to switch the first solenoid valve (80V1) to be opened or closed.

IPC 8 full level
F24H 1/00 (2006.01); **F25B 1/00** (2006.01); **F25B 5/00** (2006.01); **F25B 5/04** (2006.01); **F25B 6/04** (2006.01); **F25B 9/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP KR)
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Citation (search report)

- [X] US 2014230477 A1 20140821 - FURUI SHUJI [JP], et al
- [X] JP 2000179985 A 20000630 - TAISEI CORP, et al
- [A] EP 1617158 A2 20060118 - SANYO ELECTRIC CO [JP]
- [A] AT 409667 B 20021025 - GROESSWANG HEINZ [AT]
- See references of WO 2016189663A1

Cited by
CN113811833A

Designated contracting state (EPC)
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EP 3306219 A1 20180411; **EP 3306219 A4 20190213**; **EP 3306219 B1 20191113**; AU 2015395825 A1 20171026; AU 2015395825 B2 20181108; CN 107614985 A 20180119; CN 107614985 B 20200414; JP 6437113 B2 20181212; JP WO2016189663 A1 20180111; KR 102010687 B1 20190813; KR 20170137175 A 20171212; WO 2016189663 A1 20161201

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