

Title (en)
HEAT PUMP

Title (de)
WÄRMEPUMPE

Title (fr)
POMPE À CHALEUR

Publication
EP 3705809 A1 20200909 (EN)

Application
EP 18877203 A 20181108

Priority
• JP 2017215657 A 20171108
• JP 2018041492 W 20181108

Abstract (en)
Provided is a heat pump that includes: a low-stage compressor (3); a high-stage compressor (4) connected in series to a downstream side of the low-stage compressor (3); a condenser (5) connected to a downstream side of the high-stage compressor (4); expansion elements (6) each connected to a downstream side of the condenser (5); an evaporator (10) connected to downstream sides of the expansion elements (6); a second valve (18) and a third valve (19) allowing a refrigerant (R) to be selectively introduced into either the low-stage compressor (3) or the high-stage compressor (4) from the evaporator (10); a low-stage gas-liquid separator (21) installed at an inlet of the low-stage compressor (3) and configured to separate a liquid phase of the refrigerant (R) and to allow a gas phase to be introduced into the low-stage compressor (3); and a high-stage gas-liquid separator (22) installed at an inlet of the high-stage compressor (4) and configured to separate the liquid phase of the refrigerant (R) and to allow the gas phase to be introduced into the high-stage compressor (4).

IPC 8 full level
F25B 1/10 (2006.01); **F25B 1/00** (2006.01); **F25B 43/00** (2006.01)

CPC (source: EP US)
F25B 1/10 (2013.01 - EP); **F25B 5/02** (2013.01 - EP US)

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