

Title (en)
HEAT PUMP AND METHOD OF CONTROLLING HEAT PUMP

Title (de)
WÄRMEPUMPE UND VERFAHREN ZUR STEUERUNG DER WÄRMEPUMPE

Title (fr)
POMPE À CHALEUR ET PROCÉDÉ DE COMMANDE DE POMPE À CHALEUR

Publication
EP 3587957 C0 20230830 (EN)

Application
EP 19182535 A 20190626

Priority
JP 2018123707 A 20180628

Abstract (en)
[origin: EP3587957A1] A heat pump (1) includes a four-way valve (11) which is configured to select a first channel through which a refrigerant discharged from a high-stage compressor (4) is introduced into the condenser (5) and a refrigerant supplied from an evaporator (7) is introduced into a low-stage compressor (3) and a second channel through which the refrigerant discharged from the high-stage compressor (4) is introduced into the evaporator (7) and the refrigerant supplied from the condenser (5) is introduced into the low-stage compressor (3), and a bypass flow path (12) through which the refrigerant supplied from the evaporator (7) is introduced into the low-stage compressor (3) without passing through the four-way valve or through which the refrigerant supplied from the evaporator (7) is introduced into the high-stage compressor (4) without passing through the four-way valve (11) and the low-stage compressor (3).

IPC 8 full level
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CPC (source: EP US)
F25B 1/10 (2013.01 - EP US); **F25B 5/02** (2013.01 - EP); **F25B 41/20** (2021.01 - EP US); **F25B 41/24** (2021.01 - EP US); **F25B 47/025** (2013.01 - EP); **F25B 49/02** (2013.01 - EP); **F25B 9/008** (2013.01 - EP); **F25B 13/00** (2013.01 - EP); **F25B 25/005** (2013.01 - EP); **F25B 2313/02791** (2013.01 - EP); **F25B 2600/2519** (2013.01 - EP); **F25B 2700/21163** (2013.01 - EP); **F25B 2700/21175** (2013.01 - EP)

Cited by
CN116997755A

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

Participating member state (EPC – UP)
AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT SE SI

DOCDB simple family (publication)
EP 3587957 A1 20200101; **EP 3587957 B1 20230830**; **EP 3587957 C0 20230830**; ES 2956745 T3 20231227; JP 2020003151 A 20200109; JP 7097762 B2 20220708

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