

Title (en)
REFRIGERATION CYCLE DEVICE

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication
EP 3499142 A4 20190731 (EN)

Application
EP 16912698 A 20160810

Priority
JP 2016073594 W 20160810

Abstract (en)
[origin: EP3499142A1] A refrigeration cycle apparatus includes a compressor (1), a flow path switching device (2), a first heat exchanger (4) having a first heat exchange unit (4a) and a second heat exchange unit (4b), a flow path changing device (10), a first expansion valve (8a), and a second heat exchanger (9). The flow path switching device is configured to switch flow of the refrigerant compressed by the compressor between flow to the first heat exchanger and flow to the second heat exchanger. The flow path changing device is configured to switch flow of the refrigerant among flow successively through the first heat exchange unit and the second heat exchange unit, flow in parallel through the first heat exchange unit and the second heat exchange unit, and flow through any one of the first heat exchange unit and the second heat exchange unit. This allows the flow path changing device to switch between the first heat exchange unit and the second heat exchange unit, controlling the capacity of the first heat exchanger. Thus, the capacity of the heat exchanger can be controlled in accordance with the operation during high-outside-temperature heating, low-outside-temperature cooling, and low-capacity cooling/heating.

IPC 8 full level
F24F 11/30 (2018.01); **F25B 41/04** (2006.01)

CPC (source: EP US)
F24F 1/14 (2013.01 - EP US); **F25B 13/00** (2013.01 - EP); **F25B 41/20** (2021.01 - EP US); **F25B 41/24** (2021.01 - EP US); **F25B 2313/02533** (2013.01 - EP); **F25B 2313/02541** (2013.01 - EP)

Citation (search report)

- [X1] EP 2759785 A1 20140730 - DAIKIN IND LTD [JP]
- [X1] US 2016033179 A1 20160204 - KIM DONGHWI [KR], et al
- [X] WO 03059664 A1 20030724 - DAIMLER CHRYSLER AG [DE], et al
- See references of WO 2018029817A1

Cited by
CN111678303A; US11802719B2

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)
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DOCDB simple family (application)
EP 16912698 A 20160810; JP 2016073594 W 20160810; JP 2018533368 A 20160810