

Title (en)  
REFRIGERATION CYCLE DEVICE

Title (de)  
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)  
DISPOSITIF À CYCLE FRIGORIFIQUE

Publication  
**EP 3936786 A4 20220316 (EN)**

Application  
**EP 19917871 A 20190306**

Priority  
JP 2019008866 W 20190306

Abstract (en)  
[origin: EP3936786A1] The refrigeration cycle apparatus (100) includes a compressor (1), a first heat exchanger (3a), a second heat exchanger (3b), a third heat exchanger (5), a first expansion valve (4a), and a first switch (7). The first switch (7) switches each of a first flow path (F1) and a second flow path (F2) between an open state and a closed state. When the first flow path (F1) is open, the refrigerant is circulated in the first circulation direction through the compressor (1), the first heat exchanger (3a), the first port (P1), the second port (P2), the second heat exchanger (3b), the first expansion valve (4a), and the third heat exchanger (5). When the second flow passage (F2) is open, the refrigerant is circulated in the second circulation direction through the compressor (1), the first heat exchanger (3a), the first port (P1), the third port (P3), the first expansion valve (4a), and the third heat exchanger (5). When the circulation direction of the refrigerant is switched from the first circulation direction to the second circulation direction, a part of the refrigerant is stored in the second heat exchanger (3b).

IPC 8 full level  
**F25B 1/00** (2006.01); **F25B 5/04** (2006.01); **F25B 6/04** (2006.01); **F25B 41/39** (2021.01); **F25B 47/02** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)  
**F25B 5/04** (2013.01); **F25B 6/04** (2013.01); **F25B 41/39** (2021.01); **F25B 47/025** (2013.01); **F25B 49/02** (2013.01); **F25B 2313/0314** (2013.01); **F25B 2313/0315** (2013.01); **F25B 2400/0403** (2013.01); **F25B 2400/0409** (2013.01); **F25B 2400/0417** (2013.01); **F25B 2700/21162** (2013.01); **F25B 2700/21163** (2013.01); **F25B 2700/21174** (2013.01)

Citation (search report)

- [I] US 2014260386 A1 20140918 - HATANAKA KENSAKU [JP], et al
- [A] WO 2012143778 A1 20121026 - TOYOTA MOTOR CO LTD [JP], et al
- [A] CN 206247522 U 20170613 - NINGBO YONGLING ENV EQUIPMENT CO LTD
- See references of WO 2020179015A1

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)  
BA ME

DOCDB simple family (publication)  
**EP 3936786 A1 20220112**; **EP 3936786 A4 20220316**; **EP 3936786 B1 20231004**; CN 113518886 A 20211019; CN 113518886 B 20221111; ES 2961815 T3 20240314; JP 7118239 B2 20220815; JP WO2020179015 A1 20211202; WO 2020179015 A1 20200910

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