

Title (en)
REFRIGERATION CYCLE DEVICE

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE FRIGORIFIQUE

Publication
EP 3951287 A4 20220330 (EN)

Application
EP 19921695 A 20190328

Priority
JP 2019013654 W 20190328

Abstract (en)
[origin: EP3951287A1] An object is to provide a refrigeration cycle apparatus capable of reducing freezing in a lower part of a heat exchanger in which drainage water tends to accumulate and reducing an amount of refrigerant in a refrigerant circuit. The refrigeration cycle apparatus includes the refrigerant circuit 1 connecting, by refrigerant pipes, a compressor, a first expansion device, and a first heat exchanger configured to serve as evaporator during heating operation. The first heat exchanger is provided with a first heat exchange unit and a second heat exchange unit connected to the first heat exchange unit in series in the refrigerant circuit. The first expansion device is connected in parallel with the second heat exchange unit in the refrigerant circuit, and the second heat exchange unit is placed at a position lower than a position of the first heat exchange unit.

IPC 8 full level
F25B 39/02 (2006.01); **F25B 1/00** (2006.01); **F25B 6/04** (2006.01); **F25B 13/00** (2006.01); **F25B 41/385** (2021.01); **F25B 47/00** (2006.01)

CPC (source: EP US)
F25B 6/04 (2013.01 - EP US); **F25B 13/00** (2013.01 - EP); **F25B 39/02** (2013.01 - EP); **F25B 39/04** (2013.01 - US); **F25B 41/385** (2021.01 - EP); **F25B 47/006** (2013.01 - EP); **F25B 47/025** (2013.01 - EP); **F25B 2313/0252** (2013.01 - EP); **F25B 2313/0254** (2013.01 - EP); **F25B 2400/0417** (2013.01 - EP); **F25B 2500/31** (2013.01 - EP)

Citation (search report)

- [X] WO 2018047416 A1 20180315 - MITSUBISHI ELECTRIC CORP [JP] & US 2019162454 A1 20190530 - HATOMURA TAKESHI [JP], et al
- [X] WO 2018047331 A1 20180315 - MITSUBISHI ELECTRIC CORP [JP] & EP 3511651 A1 20190717 - MITSUBISHI ELECTRIC CORP [JP]
- [A] EP 1610076 A2 20051228 - SAMSUNG ELECTRONICS CO LTD [KR]
- See references of WO 2020194677A1

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 3951287 A1 20220209; EP 3951287 A4 20220330; CN 113646597 A 20211112; CN 113646597 B 20221209; JP 7123238 B2 20220822; JP WO2020194677 A1 20211014; US 2022136740 A1 20220505; WO 2020194677 A1 20201001

DOCDB simple family (application)
EP 19921695 A 20190328; CN 201980094530 A 20190328; JP 2019013654 W 20190328; JP 2021508609 A 20190328; US 201917434298 A 20190328