

Title (en)
REFRIGERATION CYCLE DEVICE

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication
EP 4089346 A4 20221228 (EN)

Application
EP 20912140 A 20200109

Priority
JP 2020000498 W 20200109

Abstract (en)
[origin: EP4089346A1] In a refrigeration cycle apparatus (100), refrigerant circulates in order of a compressor (1), a first heat exchanger (2), a decompressor (3), and a second heat exchanger (4). The refrigeration cycle apparatus (100) has a refrigerant container (5), a first switch unit (6), a second switch unit (7), and a controller (10). When a first condition meaning that an amount of refrigerant in liquid state stored in the refrigerant container (5) is excessive is satisfied, the controller (10) controls the first switch unit (6) to guide the refrigerant from the compressor (1) to the first heat exchanger (2) through the refrigerant container (5) and controls the second switch unit (7) to guide the refrigerant from the second heat exchanger (4) to the compressor not through the refrigerant container (5). When the first condition is not satisfied, the controller (10) controls the first switch unit (6) to guide the refrigerant from the compressor (1) to the first heat exchanger (2) not through the refrigerant container (5) and controls the second switch unit (7) to guide the refrigerant from the refrigerant container (5) to the compressor (1).

IPC 8 full level
F25B 41/00 (2021.01); **F25B 1/00** (2006.01); **F25B 41/20** (2021.01); **F25B 41/22** (2021.01); **F25B 41/26** (2021.01); **F25B 43/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP US)
F25B 1/00 (2013.01 - US); **F25B 41/20** (2021.01 - EP US); **F25B 41/22** (2021.01 - EP); **F25B 41/26** (2021.01 - EP); **F25B 43/00** (2013.01 - EP US); **F25B 49/02** (2013.01 - EP); **F25B 49/022** (2013.01 - US); **F25B 2400/23** (2013.01 - EP US); **F25B 2500/06** (2013.01 - EP); **F25B 2500/16** (2013.01 - EP); **F25B 2600/2523** (2013.01 - US); **F25B 2700/04** (2013.01 - US); **F25B 2700/2105** (2013.01 - US)

Citation (search report)
• [XAI] WO 2018073881 A1 20180426 - MITSUBISHI ELECTRIC CORP [JP]
• [A] JP 2017053549 A 20170316 - MITSUBISHI ELECTRIC CORP
• [A] WO 2019082702 A1 20190502 - MITSUBISHI HEAVY IND THERMAL SYSTEMS LTD [JP]
• See references of WO 2021140625A1

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4089346 A1 20221116; **EP 4089346 A4 20221228**; CN 114902009 A 20220812; CN 114902009 B 20230707; JP 7325542 B2 20230814; JP WO2021140625 A1 20210715; US 2022390161 A1 20221208; WO 2021140625 A1 20210715

DOCDB simple family (application)
EP 20912140 A 20200109; CN 202080091574 A 20200109; JP 2020000498 W 20200109; JP 2021569674 A 20200109; US 20201777114 A 20200109