

Title (en)
REFRIGERATION DEVICE AND CONTROL METHOD THEREFOR

Title (de)
KÜHLVORRICHTUNG UND STEUERUNGSVERFAHREN DAFÜR

Title (fr)
DISPOSITIF DE RÉFRIGÉRATION ET SON PROCÉDÉ DE COMMANDE

Publication
EP 3462108 A4 20190522 (EN)

Application
EP 17837002 A 20170802

Priority

- JP 2016153753 A 20160804
- JP 2017028003 W 20170802

Abstract (en)
[origin: EP3462108A1] A refrigeration device is equipped with: an extraction pipe (19) that extracts a portion of a non-azeotropic refrigerant mixture from between a condenser (5) and an expansion valve (7); an extraction pipe on-off valve (20); a gas-liquid separator (17) that is connected to the extraction pipe (19), and that accumulates the non-azeotropic refrigerant mixture and separates the mixture into a gas and a liquid; a gas return pipe (21) connecting the gas-phase portion inside the gas-liquid separator (17) and a point between the expansion valve (7) and an evaporator (9); a gas return pipe on-off valve (22); a liquid return pipe (23) connecting the liquid-phase portion inside the gas-liquid separator (17) and a point between the expansion valve (7) and the evaporator (9); a liquid return pipe on-off valve (24); and a control unit that controls the extraction pipe on-off valve (20), the gas return pipe on-off valve (22), and the liquid return pipe on-off valve (24).

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

CPC (source: EP US)
F25B 1/00 (2013.01 - EP US); **F25B 41/00** (2013.01 - EP); **F25B 41/40** (2021.01 - EP US); **F25B 43/00** (2013.01 - EP); **F25B 43/006** (2013.01 - EP); **F25B 49/02** (2013.01 - EP); **F25B 2400/0411** (2013.01 - EP); **F25B 2400/0415** (2013.01 - EP); **F25B 2400/23** (2013.01 - EP); **F25B 2600/21** (2013.01 - EP); **F25B 2600/2519** (2013.01 - EP)

Citation (search report)

- [XAI] JP S616567 A 19860113 - MATSUSHITA ELECTRIC IND CO LTD
- [A] JP S63129253 A 19880601 - MITSUBISHI HEAVY IND LTD
- [A] JP H0798161 A 19950411 - TOSHIBA CORP
- See references of WO 2018025900A1

Cited by
EP4276384A4

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 3462108 A1 20190403; EP 3462108 A4 20190522; JP 2018021721 A 20180208; JP 6692715 B2 20200513; WO 2018025900 A1 20180208

DOCDB simple family (application)
EP 17837002 A 20170802; JP 2016153753 A 20160804; JP 2017028003 W 20170802