

Title (en)
AIR CONDITIONING DEVICE

Title (de)
KLIMATISIERUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE CLIMATISATION

Publication
EP 4060257 A4 20221116 (EN)

Application
EP 19952846 A 20191115

Priority
JP 2019044892 W 20191115

Abstract (en)
[origin: EP4060257A1] A detection case (20) is arranged between an outdoor heat exchanger (2) and an expansion valve (3). A diaphragm (23) divides an internal space of the detection case (20) into a first space (R1) and a second space (R2). The first space (R1) is sealed, and a second refrigerant (CB) of the same type as a first refrigerant (CA) is sealed in the first space (R1). The second space (R2) is connected to a refrigerant circuit (100), and the first refrigerant (CA) flows into the second space (R2). A strain sensor (GS) is arranged on the diaphragm (23) and detects a difference between a pressure of the first refrigerant (CA) in the second space (R2) and a pressure of the second refrigerant (CB) in the first space (R1). A temperature detector (51) detects a temperature of the first refrigerant (CA) between the outdoor heat exchanger (2) and the detection case (20).

IPC 8 full level
F25B 49/02 (2006.01); **F25B 13/00** (2006.01); **G01L 9/00** (2006.01)

CPC (source: EP)
F25B 13/00 (2013.01); **F25B 49/02** (2013.01); **F25B 2313/0313** (2013.01); **F25B 2313/0314** (2013.01); **F25B 2500/19** (2013.01); **F25B 2500/222** (2013.01); **F25B 2600/2513** (2013.01)

Citation (search report)

- [XAI] JP 2016211832 A 20161215 - DAIKIN IND LTD
- [A] JP 2019138614 A 20190822 - DENSO CORP
- [A] WO 2018159321 A1 20180907 - DENSO CORP [JP]
- [A] JP 2010007994 A 20100114 - DAIKIN IND LTD
- [A] JP 2008249157 A 20081016 - SAGINOMIYA SEISAKUSHO INC
- See references of WO 2021095238A1

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 4060257 A1 20220921; **EP 4060257 A4 20221116**; JP 7386886 B2 20231127; JP WO2021095238 A1 20210520; WO 2021095238 A1 20210520

DOCDB simple family (application)
EP 19952846 A 20191115; JP 2019044892 W 20191115; JP 2021555752 A 20191115