

Title (en)
AIR CONDITIONING SYSTEM

Title (de)
KLIMATISIERUNGSSYSTEM

Title (fr)
SYSTÈME DE CONDITIONNEMENT D'AIR

Publication
EP 4067776 A4 20230104 (EN)

Application
EP 20892899 A 20201125

Priority
• JP 2019217391 A 20191129
• JP 2020043893 W 20201125

Abstract (en)
[origin: EP4067776A1] An air conditioning system (100) includes a refrigerant circuit (10), a heat exchanger (30a, 30b, 30c), a shutoff valve (70), and a refrigerant leakage sensor (50a, 50b, 50c). The refrigerant circuit includes a first part (11a, 11b, 11c) and a second part (12). The heat exchanger is provided in the first part and exchanges heat between a refrigerant and air in an air conditioning target space. The shutoff valve is provided in the refrigerant circuit and shuts off communication between the first part and the second part. The refrigerant leakage sensor detects that refrigerant concentration is within a first range and detects the refrigerant leaked from the first part. The shutoff valve is placed to set the refrigerant concentration in the air conditioning target space within a second range larger than the first range, when it is assumed that all the refrigerant present in the first part has leaked to the air conditioning target space.

IPC 8 full level
F25B 41/24 (2021.01); **F24F 11/36** (2018.01); **F25B 13/00** (2006.01); **F25B 49/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP US)
F24F 11/36 (2017.12 - EP US); **F25B 13/00** (2013.01 - EP); **F25B 41/24** (2021.01 - EP US); **F25B 49/005** (2013.01 - EP US); **F25B 2313/0233** (2013.01 - EP); **F25B 2500/222** (2013.01 - EP); **F25B 2600/2519** (2013.01 - EP)

Citation (search report)
• [X] EP 3467406 A1 20190410 - MITSUBISHI ELECTRIC CORP [JP]
• [X] WO 2011099058 A1 20110818 - MITSUBISHI ELECTRIC CORP [JP], et al
• [X] US 2014033754 A1 20140206 - HATOMURA TAKESHI [JP], et al
• [XDI] JP 2019045129 A 20190322 - DAIKIN IND LTD
• See references of WO 2021106957A1

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 4067776 A1 20221005; EP 4067776 A4 20230104; CN 114729768 A 20220708; JP 2021085644 A 20210603; JP 2021143827 A 20210924; US 2022290885 A1 20220915; WO 2021106957 A1 20210603

DOCDB simple family (application)
EP 20892899 A 20201125; CN 202080082776 A 20201125; JP 2019217391 A 20191129; JP 2020043893 W 20201125; JP 2021103945 A 20210623; US 202217826801 A 20220527