

Title (en)
OUTDOOR UNIT AND REFRIGERATION CYCLE DEVICE

Title (de)
AUSSENEINHEIT UND KÜHLZYKLUSVORRICHTUNG

Title (fr)
UNITÉ EXTÉRIEURE ET DISPOSITIF À CYCLE FRIGORIFIQUE

Publication
EP 4071425 A4 20221130 (EN)

Application
EP 19955082 A 20191204

Priority
JP 2019047501 W 20191204

Abstract (en)
[origin: EP4071425A1] An outdoor unit (2) includes a first channel (F1), a second channel (F2), an erected pipe (71), a flow rate regulation device (73), a refrigerant heating device (75), a dryness increasing device (150), a temperature sensor (122), and a notification device (101). The compressor (10) and the condenser (20) are disposed along a first channel (F1). The second channel (F2) is configured to branch from a branching point (BP1) and return to the compressor (10) the refrigerant having passed through the condenser (20). The erected pipe (71) is provided at the branching point (BP1). The dryness increasing device (150) increases the dryness of the refrigerant that has passed through the condenser (20) in a refrigerant shortage sensing mode to be larger than in a normal mode. The temperature sensor (122) senses the temperature (T1) of the refrigerant after it passes through the refrigerant heating device (75). In the refrigerant shortage sensing mode, in accordance with to an output of the temperature sensor (122), the notification device (101) provides notification of shortage of the refrigerant.

IPC 8 full level
F25B 1/00 (2006.01); **F25B 31/00** (2006.01); **F25B 43/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)
F25B 31/006 (2013.01); **F25B 43/00** (2013.01); **F25B 49/02** (2013.01); **F25B 2400/01** (2013.01); **F25B 2400/23** (2013.01); **F25B 2500/24** (2013.01); **F25B 2600/0253** (2013.01); **F25B 2600/111** (2013.01); **F25B 2600/2509** (2013.01); **F25B 2600/2513** (2013.01); **F25B 2700/1931** (2013.01); **F25B 2700/1933** (2013.01); **F25B 2700/2101** (2013.01)

Citation (search report)

- [YA] EP 2730859 A1 20140514 - PANASONIC CORP [JP]
- [Y] JP 2005147456 A 20050609 - DAIKIN IND LTD
- See references of WO 2021111561A1

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)
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DOCDB simple family (application)
EP 19955082 A 20191204; CN 201980102603 A 20191204; JP 2019047501 W 20191204; JP 2021562264 A 20191204