

Title (en)

REFRIGERATION CYCLE APPARATUS

Title (de)

KÄLTEKREISLAUFVORRICHTUNG

Title (fr)

APPAREIL À CYCLE DE RÉFRIGÉRATION

Publication

EP 4242551 A4 20231206 (EN)

Application

EP 20960755 A 20201104

Priority

JP 2020041211 W 20201104

Abstract (en)

[origin: EP4242551A1] A refrigeration cycle apparatus (100) comprises: a compressor (1); a first heat exchanger (2); a second heat exchanger (5); a first decompressing apparatus (4); an oil separator (3); a first circulation pathway in which a refrigerant circulates in an order of the compressor (1), the first heat exchanger (2), the oil separator (3), the first decompressing apparatus (4), and the second heat exchanger (5); an oilReturned pathway connecting between the oil separator (3) and a suction side of the compressor (1); a second decompressing apparatus (7) provided in the oilReturned pathway; and a controller (80) configured to control the first decompressing apparatus (4) and the second decompressing apparatus (7). The controller (80) is configured to set an operation mode to an oil collection mode (S106 in Fig. 6 and S202 in Fig. 7) in which the oilReturned pathway (61) is opened by adjusting a degree of decompression of the first decompressing apparatus (4) and a degree of decompression of the second decompressing apparatus (7) when the refrigerant and a refrigerating machine oil flowing in the first circulation pathway are separated in the oil separator (3).

IPC 8 full level

F25B 13/00 (2006.01); **F25B 1/00** (2006.01); **F25B 31/00** (2006.01); **F25B 43/02** (2006.01)

CPC (source: EP US)

F25B 13/00 (2013.01 - EP US); **F25B 31/004** (2013.01 - EP US); **F25B 43/02** (2013.01 - EP); **F25B 49/02** (2013.01 - EP);
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F25B 2700/2109 (2013.01 - US); **F25B 2700/21151** (2013.01 - EP); **F25B 2700/21152** (2013.01 - EP US); **F25B 2700/2117** (2013.01 - EP)

Citation (search report)

- [X] EP 1862749 A2 20071205 - SANDEN CORP [JP]
- [XD] JP H0886519 A 19960402 - MITSUBISHI ELECTRIC CORP
- See references of WO 2022097201A1

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 20960755 A 20201104; JP 2020041211 W 20201104; JP 2022560541 A 20201104; US 202018027980 A 20201104