Title (en)

REFRIGERATION DEVICE

Title (de)

KÜHLVORRICHTUNG

Title (fr)

DISPOSITIF DE RÉFRIGÉRATION

Publication

**EP 3546850 A1 20191002 (EN)**

Application

**EP 17872915 A 20171122**

Priority

- JP 2016227658 A 20161124
- JP 2017041919 W 20171122

Abstract (en)

Provided is a refrigeration apparatus that is capable of implementing a novel control method capable of suppressing occurrence of a situation in which a refrigerating machine oil from an oil separator is unsatisfactorily returned to a compressor and a discharge gas refrigerant is mostly returned to the compressor. An oil return valve (39) is disposed on an oil return pipe (38) connecting an oil separator (23) disposed on a discharge side of a compressor (21) to an injection pipe (30) for supplying a refrigerant to the compressor (21). A controller (70) controls the oil return valve (39) to reduce a flow rate when a temperature of the refrigerant discharged from the compressor (21) or a pressure of the refrigerant flowing through the injection pipe (30) satisfies a predetermined condition.

IPC 8 full level

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

CPC (source: EP US)

**F25B 1/005** (2013.01 - US); **F25B 31/004** (2013.01 - EP US); **F25B 41/20** (2021.01 - EP US); **F25B 43/02** (2013.01 - EP US); **F25B 49/02** (2013.01 - EP); F25B 13/00 (2013.01 - EP); F25B 2313/0233 (2013.01 - EP); F25B 2400/04 (2013.01 - EP); F25B 2400/23 (2013.01 - US); F25B 2500/16 (2013.01 - EP US); F25B 2600/0251 (2013.01 - EP); F25B 2600/05 (2013.01 - EP); F25B 2600/2501 (2013.01 - EP); F25B 2600/2509 (2013.01 - EP); F25B 2600/2513 (2013.01 - EP); F25B 2700/03 (2013.01 - EP); F25B 2700/1931 (2013.01 - EP); F25B 2700/21152 (2013.01 - EP)

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 3546850 A1 20191002**; **EP 3546850 A4 20200819**; **EP 3546850 B1 20230104**; **EP 3546850 B8 20230208**; CN 110023692 A 20190716; CN 110023692 B 20210806; JP 2018084375 A 20180531; JP 6390688 B2 20180919; US 2019360725 A1 20191128; WO 2018097154 A1 20180531

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