

Title (en)
Refrigeration cycle apparatus

Title (de)
Kältekreislaufvorrichtung

Title (fr)
Appareil de circuit de réfrigération

Publication
EP 2679921 B1 20161019 (EN)

Application
EP 13160066 A 20130319

Priority
JP 2012143606 A 20120627

Abstract (en)
[origin: EP2679921A2] From recent study of combustion of an HFC refrigerant that has a low GWP but is flammable, it has been found that the combustion scale tends to increase as the absolute humidity increases. In a refrigeration cycle apparatus using such a refrigerant, it is necessary to increase safety against unexpected refrigerant leakage in consideration of this tendency. This refrigeration cycle apparatus includes a compressor having a compression mechanism section in an enclosed container and configured to compress and discharge a refrigerant so as to circulate the refrigerant in a refrigerant circuit, and an outdoor unit installed outdoors and having a housing divided by a partition plate into a fan chamber and a machine chamber including the compressor. The refrigerant is a flammable HFC refrigerant. The refrigeration cycle apparatus further includes a desiccant attached in thermal contact with a surface of the enclosed container of the compressor whose temperature is increased by a gas refrigerant compressed by the compression mechanism section during operation of the compressor so that the temperature becomes a high temperature near a temperature of the compressed gas refrigerant, and adsorbs water from air in the machine chamber during non-operation of the outdoor unit.

IPC 8 full level
F24F 1/06 (2011.01); **F24F 1/46** (2011.01); **F24F 3/14** (2006.01); **F24F 11/00** (2006.01); **F25B 9/00** (2006.01); **F25B 13/00** (2006.01); **F25B 49/00** (2006.01)

CPC (source: EP)
F24F 1/06 (2013.01); **F24F 1/46** (2013.01); **F24F 3/1411** (2013.01); **F25B 13/00** (2013.01); **F25B 49/005** (2013.01); **F24F 11/36** (2017.12); **F25B 2400/12** (2013.01); **F25B 2500/22** (2013.01)

Cited by
EP4428457A1; EP3795927A4; EP3112768A4; EP3578894A4; US11067303B2; US11506431B2; WO2024184347A1

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

DOCDB simple family (publication)
EP 2679921 A2 20140101; **EP 2679921 A3 20160106**; **EP 2679921 B1 20161019**; CN 103512292 A 20140115; CN 103512292 B 20151014; CN 203274387 U 20131106; JP 2014006027 A 20140116; JP 5673612 B2 20150218

DOCDB simple family (application)
EP 13160066 A 20130319; CN 201310149045 A 20130426; CN 201320218437 U 20130426; JP 2012143606 A 20120627