

Title (en)
Refrigeration device

Title (de)
Kühlvorrichtung

Title (fr)
Réfrigérateur

Publication
EP 2314954 B1 20180801 (EN)

Application
EP 09762229 A 20090603

Priority
• JP 2009002502 W 20090603
• JP 2008150445 A 20080609

Abstract (en)
[origin: EP2314954A1] A gas vent pipe (62) through which a gas space in a receiver (35) is communicated with an intermediate pressure chamber of a compressor (31, 32), and a gas vent valve (63) provided in the gas vent pipe (62) are provided. When the degree of subcooling of refrigerant in the outdoor heat exchanger (34) or the indoor heat exchanger (71) is greater than or equal to a predetermined value during a heating and refrigeration operation in which refrigerant discharged from the compressor (31, 32) flows into an outdoor heat exchanger (34) and an indoor heat exchanger (71), condenses, and then flows into a receiver (35), and the liquid refrigerant in the receiver (35) is supplied to a chilling heat exchanger (81) and a freezing heat exchanger (91), and evaporates, the gas vent valve (63) is opened. Consequently, the liquid refrigerant accumulated in the indoor heat exchanger (71), etc., is discharged, and flows into the receiver (35).

IPC 8 full level
F25B 1/00 (2006.01); **F25B 13/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)
F25B 1/10 (2013.01); **F25B 13/00** (2013.01); **F25B 2313/0233** (2013.01); **F25B 2313/02731** (2013.01); **F25B 2313/02742** (2013.01);
F25B 2313/0314 (2013.01); **F25B 2400/0751** (2013.01); **F25B 2400/16** (2013.01); **F25B 2400/19** (2013.01); **F25B 2400/22** (2013.01);
F25B 2600/2523 (2013.01); **F25B 2700/04** (2013.01)

Cited by
WO2014129935A1; CN106247668A; EP3879204A1; EP4040072A1

Designated contracting state (EPC)
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 SE SI SK TR

DOCDB simple family (publication)
EP 2314954 A1 20110427; EP 2314954 A4 20170329; EP 2314954 B1 20180801; JP 2009293899 A 20091217; WO 2009150798 A1 20091217

DOCDB simple family (application)
EP 09762229 A 20090603; JP 2008150445 A 20080609; JP 2009002502 W 20090603