

Title (en)  
FREEZER DEVICE

Title (de)  
GEFRIERVORRICHTUNG

Title (fr)  
CONGÉLATEUR

Publication  
**EP 2314954 A4 20170329 (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 1/10** (2006.01); **F25B 29/00** (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)

Citation (search report)  
• [YA] JP 2004205142 A 20040722 - MITSUBISHI ELECTRIC CORP  
• [Y] WO 2006115053 A1 20061102 - DAIKIN IND LTD [JP], et al  
• [A] JP 2006038453 A 20060209 - DAIKIN IND LTD  
• [A] JP H02178572 A 19900711 - DAIKIN IND LTD  
• See references of WO 2009150798A1

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