

Title (en)
Refrigerating machine having intermediate-pressure receiver

Title (de)
Kälteanlage mit einem Zwischendruck-Sammler

Title (fr)
Appareil frigorifique avec un réservoir de pression intermédiaire

Publication
EP 1731853 A2 20061213 (EN)

Application
EP 06011782 A 20060607

Priority
JP 2005168140 A 20050608

Abstract (en)
A refrigerating machine (30) including a two-stage compressor (1), a high-pressure gas cooler (3), a first expansion valve (5), an intermediate-pressure receiver (7), a second expansion valve (9), and an evaporator (11) is further equipped with an intermediate-pressure refrigerant bypass circuit (13) for bypassing gas refrigerant in the intermediate-pressure receiver (7) to an intermediate-pressure portion (10) of the two-stage compressor (1), a back flow preventing device (15) provided to the intermediate-pressure refrigerant bypass circuit (13) for preventing back flow of refrigerant from the two-stage compressor (1) to the intermediate-pressure receiver (7), and a refrigerant-pressure control unit (45) for controlling the pressure of the refrigerant in the intermediate-pressure receiver (7) on the basis of the difference between a specific enthalpy of refrigerant discharged from the high-pressure gas cooler (3) and a predetermined reference enthalpy.

IPC 8 full level
F25B 1/10 (2006.01); **F25B 9/00** (2006.01); **F25B 29/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP US)
F25B 1/10 (2013.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 41/39** (2021.01 - EP); **F25B 13/00** (2013.01 - EP US); **F25B 41/39** (2021.01 - US); **F25B 2309/061** (2013.01 - EP US); **F25B 2313/02791** (2013.01 - EP US); **F25B 2341/063** (2013.01 - EP US); **F25B 2400/13** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US); **F25B 2500/28** (2013.01 - EP US); **F25B 2600/2513** (2013.01 - EP US); **F25B 2700/2102** (2013.01 - EP US); **F25B 2700/2109** (2013.01 - EP US); **F25B 2700/21151** (2013.01 - EP US); **F25B 2700/21152** (2013.01 - EP US)

Cited by
NO342344B1; CN110068177A; US2018283750A1; US11460230B2; EP2752628A4; EP3273185A4; US11333449B2; WO2009046740A1; US10775086B2; US10816245B2; US10527327B2; EP3365618B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

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