

Title (en)

GAS-LIQUID SEPARATOR AND REFRIGERATION DEVICE WITH THE GAS-LIQUID SEPARATOR

Title (de)

GAS-FLÜSSIGKEITS-TRENNVORRICHTUNG UND KÜHLVORRICHTUNG MIT DER GAS-FLÜSSIGKEITS-TRENNVORRICHTUNG

Title (fr)

SEPARATEUR GAZ-LIQUIDE ET DISPOSITIF DE REFRIGERATION MUNI DU SEPARATEUR GAZ-LIQUIDE

Publication

EP 1975526 A1 20081001 (EN)

Application

EP 07706819 A 20070116

Priority

- JP 2007050492 W 20070116
- JP 2006008897 A 20060117

Abstract (en)

A refrigeration system includes a refrigerant circuit including a gas-liquid separator (18) and operating in a two-stage compression and two-stage expansion refrigeration cycle. In the refrigerant circuit, intermediate-pressure gas-liquid two-phase refrigerant having flowed through an intermediate expansion valve after flowing through an outdoor heat exchanger is introduced through an inflow pipe (20) of the gas-liquid separator (18) into the vessel body (16) thereof and separated therein into liquid refrigerant and gas refrigerant. The liquid refrigerant flows out through a liquid outflow pipe (30), then flows through a main expansion valve and then through a refrigeration heat exchanger and is then sucked into a low-pressure stage compressor. The gas refrigerant flows out through a gas outflow pipe (40), is then fed to the suction side of a high-pressure stage compressor and is then sucked into the high-pressure stage compressor together with refrigerant discharged from the low-pressure stage compressor. The inflow pipe (20) is provided with a mesh member (50) for fragmentizing gas bubbles (80) of gas refrigerant in the gas-liquid two-phase refrigerant.

IPC 8 full level

F25B 43/00 (2006.01); **F25B 1/10** (2006.01)

CPC (source: EP KR US)

F25B 1/10 (2013.01 - EP KR US); **F25B 43/00** (2013.01 - EP KR US); **F25B 41/00** (2013.01 - EP US); **F25B 2400/13** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US)

Citation (search report)

See references of WO 2007083624A1

Cited by

CN105928270A; US9261298B2; WO2012012491A3

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