

Title (en)  
REFRIGERATION CYCLE DEVICE

Title (de)  
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)  
DISPOSITIF À CYCLE FRIGORIFIQUE

Publication  
**EP 3267130 A1 20180110 (EN)**

Application  
**EP 15883950 A 20150304**

Priority  
JP 2015056397 W 20150304

Abstract (en)  
Provided is a refrigeration cycle apparatus configured to suppress a liquid backflow operation to a compressor during a hot-gas reverse type defrosting operation. A refrigeration cycle apparatus (1) according to the present invention includes a refrigerant circuit (2) including a compressor (21), a flow switching valve (29), a heat source-side heat exchanger (22), a main-expansion valve (24), and a use-side heat exchanger (25) that are connected by refrigerant pipes, and is configured to perform the hot-gas reverse type defrosting operation. The refrigeration cycle apparatus (1) includes a pressure sensor (3) configured to measure pressure on a high-pressure side of the refrigerant circuit, and a controller (4) configured to control the compressor (21), the flow switching valve (29), and the main-expansion valve (24). The main-expansion valve (24) connected between the heat source-side heat exchanger (22) and the use-side heat exchanger (25) is connected in parallel to a series circuit including a sub-expansion valve (26) having a variable opening degree, a refrigerant tank (27) configured to accumulate surplus refrigerant, and a solenoid valve (28) that are connected in series. The controller (4) is configured to control the opening degree of the sub-expansion valve (26) and opening and closing of the solenoid valve (28), based on the pressure measured by the pressure sensor (3).

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Cited by  
CN112665119A; US12007149B2

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