

Title (en)  
REFRIGERATION CYCLE APPARATUS

Title (de)  
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)  
APPAREIL À CYCLE DE RÉFRIGÉRATION

Publication  
**EP 4386271 A1 20240619 (EN)**

Application  
**EP 22213769 A 20221215**

Priority  
EP 22213769 A 20221215

Abstract (en)  
Providing a refrigeration cycle apparatus that cools or heats water flowing in a water circuit on a utilization side with a refrigerant flowing in a refrigerant circuit, and that is configured to inhibit, even when the refrigerant enters the water circuit, the refrigerant from being sent to the utilization side through the water circuit. A refrigeration cycle apparatus 100 includes a refrigerant circuit 10, a water circuit 30, a gas-liquid separator 40, a first gas vent valve 52, and a second gas vent valve 54. In the refrigerant circuit, a compressor 12 compressing a refrigerant and a first heat exchanger 20 in which heat is exchanged between the refrigerant and water are connected via a pipe P. In the water circuit, the water having exchanged heat with the refrigerant in the first heat exchanger flows. The gas-liquid separator is connected to the water circuit. The first gas vent valve and the second gas vent valve are attached to the gas-liquid separator and are each configured to vent air from the gas-liquid separator.

IPC 8 full level  
**F24D 19/08** (2006.01); **F24H 4/02** (2022.01)

CPC (source: EP)  
**F24D 19/083** (2013.01); **F24H 4/02** (2013.01)

Citation (applicant)  
JP 2016095130 A 20160526 - MITSUBISHI ELECTRIC CORP

Citation (search report)  

- [YA] WO 2018154628 A1 20180830 - MITSUBISHI ELECTRIC CORP [JP]
- [YA] EP 4047288 A1 20220824 - PANASONIC IP MAN CO LTD [JP]
- [YA] EP 0854310 A1 19980722 - WATTS INTERMES S P A [IT]
- [YA] CN 109185968 A 20190111 - JIANGSU NUOWENTE THERMAL ENERGY EQUIPMENT CO LTD

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

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