

Title (en)
REFRIGERATION CYCLE DEVICE

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication
EP 4166873 A1 20230419 (EN)

Application
EP 20940299 A 20200610

Priority
JP 2020022854 W 20200610

Abstract (en)
A refrigeration cycle apparatus includes an outdoor unit including a compressor and an outdoor heat exchanger, a plurality of indoor units each including an indoor heat exchanger and an expansion device, a relay unit intervening between the outdoor unit and each of the plurality of indoor units and serving to cause refrigerant from the outdoor unit to branch off into each of the indoor units, a refrigerant circuit in which the compressor, the outdoor heat exchanger, the expansion device and the indoor heat exchanger are connected by refrigerant pipes and through which refrigerant circulates, and a controller configured to control the plurality of indoor units. The relay unit includes a plurality of high-pressure valves each provided in a corresponding one of a plurality of high-pressure pipes connecting a high-pressure side of the outdoor unit and each of the indoor units and a plurality of low-pressure valves each provided in a corresponding one of a plurality of low-pressure pipes connecting a low-pressure side of the outdoor unit and each of the indoor units. The controller is configured to, when an operation state of at least one of the indoor units is changed from a first state to a second state, judge, based on a degree of supercooling of an outlet of the outdoor heat exchanger or the indoor heat exchanger that functions as a condenser or based on a degree of superheating of a suction side of the compressor, whether an abnormality is present in the plurality of high-pressure valves or the plurality of low-pressure valves.

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