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(54) **Refrigeration apparatus**

(57) It is an object of the present invention to reduce occurrence of noise in an operation by inhibiting occurrence of flow sound of refrigerant. A refrigeration apparatus (1) is a refrigeration apparatus using supercritical refrigerant operating in a zone that high pressure of the supercritical refrigerant is equal to or greater than the critical pressure. The refrigeration apparatus (1) includes a compressor (21), a gas cooler (23, 31), an expansion mechanism (V2, V5), an evaporator (31, 23), discharge pressure detection means (P1, T2, T3) and a control section (5). The compressor is configured to compress the supercritical refrigerant. The gas cooler is configured to cool the supercritical refrigerant compressed by the compressor. The expansion mechanism is configured to decompress the supercritical refrigerant. The evaporator is configured to evaporate the supercritical refrigerant decompressed by the expansion mechanism. The discharge pressure detection means is capable of detecting discharge pressure of the compressor. The control section is configured to regulate the opening degree of the expansion mechanism for controlling the discharge pressure to be equal to or greater than the critical pressure when the refrigeration apparatus is activated and the discharge pressure is less than the critical pressure.

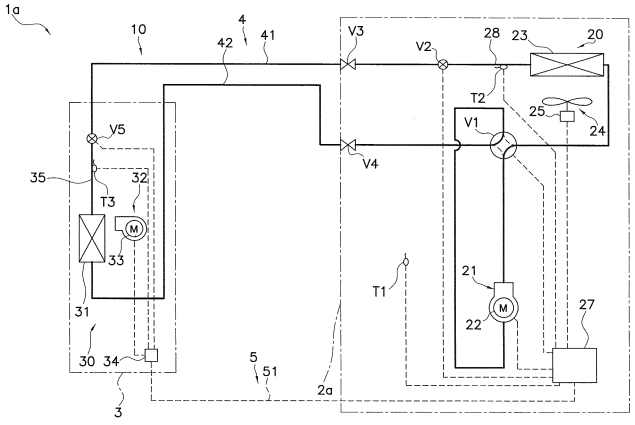

FIG. 7

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EUROPEAN SEARCH REPORT

Application Number
EP 12 18 7178

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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TECHNICAL FIELDS SEARCHED (IPC)

F25B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	14 March 2014	Szilagyi, Barnabas

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 12 18 7178

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