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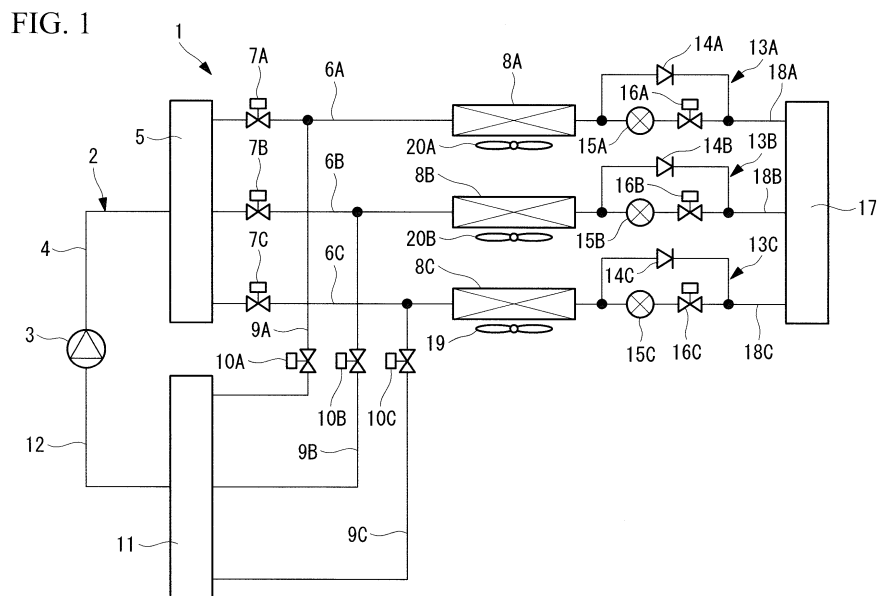
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TRANSPORT REFRIGERATION UNIT

(57)

The present invention provides a transport refrigeration unit which can prevent a decrease in an inside temperature during defrosting, can perform defrosting within a short time, and can ensure reliability by appropriately adjusting a condensing capacity during a cooling operation, and suppressing frequent starting and stopping of a compressor during thermo-on/off. In a transport refrigeration unit 1 having a heat pump-type warming function, two of a plurality of heat exchangers 8A to 8C are disposed in parallel with each other outside a refrigerator as outside heat exchangers 8A and 8B, one of the

plurality of heat exchangers is disposed inside the refrigerator as an inside heat exchanger 8C, and when the outside heat exchangers 8A and 8B are frosted during a heat pump warming operation in which the outside heat exchangers 8A and 8B are caused to function as evaporators, and the inside heat exchanger 8C is caused to function as a condenser, a defrosting operation is performed by stopping refrigerant distribution to the inside heat exchanger 8C, and causing one of the outside heat exchangers 8A and 8B to function as a condenser, and another one to function as an evaporator.





EUROPEAN SEARCH REPORT

Application Number
EP 16 15 5458

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	WO 2014/122735 A1 (DAIKIN EURO NV) 14 August 2014 (2014-08-14) * paragraph [0035] - paragraph [0140]; figures 1-8 * & EP 2 955 463 A1 (DAIKIN IND LTD [JP]; DAIKIN EUROPE NV [BE]) 16 December 2015 (2015-12-16) * paragraph [0035] - paragraph [0140] *	7	TECHNICAL FIELDS SEARCHED (IPC) F25B
A	EP 1 197 710 A2 (EATON WILLIAMS GROUP LTD [GB]) 17 April 2002 (2002-04-17) * paragraph [0025] - paragraph [0041]; figures 1-3 *	1-7	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 8 November 2016	Examiner Szilagyi, Barnabas
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/82 (P04/C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6

Transport refrigeration unit

2. claim: 7

Transport refrigeration unit wherein when an operation time of the compressor is a specified time or less during thermo-off after an inside temperature reaches a set temperature, the compressor is continuously operated until the operation time exceeds the specified time by stopping refrigerant distribution to the inside heat exchanger, and causing one of the plurality of outside heat exchangers to function as a condenser, and another one of the plurality of outside heat exchangers to function as an evaporator.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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