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(54) **A defrosting method**

(57) The present invention develops an alternative method for defrosting the ice accumulating on the evaporator-1 (3) of a cooler device (S), provided with at least one cooling compartment (2) and at least one freezing compartment (1) that comprises compressor (5), condenser (6), evaporator (3, 4) and capillary tube units. There is at least one additional condenser (7) which is to be included in the cooling cycle of the said cooler device (S) when defrost operation is active. The said additional condenser (7) and the main condenser (6) are connected to the compressor (5) via at least one valve (9b). Thus, the valve (9b) breaks the connection between the compressor (5) and the additional condenser (7) when defrost operation is inactive, and it is ensured that the refrigerant completes the regular cooling cycle through the main condenser (6). The valve (9b) includes the additional condenser (7), positioned on the evaporator-1 (3) the ice of which is to be defrosted, in the cooling cycle by breaking the connection of the compressor (5) with the main condenser (6) when defrost operation is active.

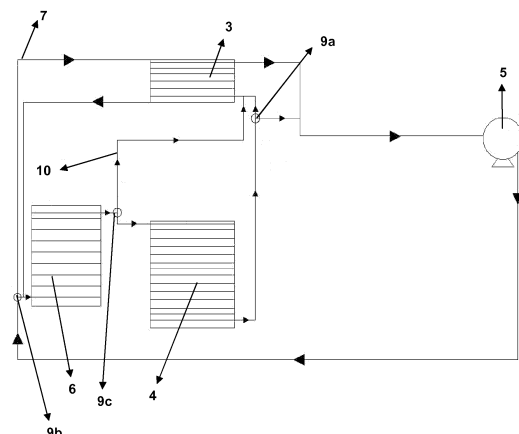


Figure 2



## EUROPEAN SEARCH REPORT

Application Number  
EP 11 16 8656

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 131 535 A (HUSSMANN CORP) 20 June 1984 (1984-06-20)	1,2	INV. F25B47/02 F25B39/00 F25B5/02 F25B41/04
A	* and description thereof; figure 1 *	3,4	
X	US 4 123 914 A (PEREZ ARTHUR ET AL) 7 November 1978 (1978-11-07)	1,2	
A	* column 3, line 36 - column 4, line 55; figure 2 *	3,4	
X	EP 1 909 047 A1 (DAIKIN IND LTD [JP]) 9 April 2008 (2008-04-09)	1,2	
A	* and description thereof; figure 8 *	3,4	
A	US 6 880 353 B1 (YAP ZER KAI [US] ET AL) 19 April 2005 (2005-04-19)	3	TECHNICAL FIELDS SEARCHED (IPC)  F25B
A	* column 4, lines 34-40; figure 1 *		
A	US 3 218 819 A (CROTSEY FRANK P) 23 November 1965 (1965-11-23)	1-4	
	* the whole document *		
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 28 June 2013	Examiner Gaspar, Ralf
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	

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EPO FORM 1503 03.82 (P04C01)

**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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28-06-2013

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2131535	A	20-06-1984	AU 556684 B2	13-11-1986
			AU 1424983 A	14-06-1984
			CA 1193871 A1	24-09-1985
			GB 2131535 A	20-06-1984
			JP S59109749 A	25-06-1984
			MX 157417 A	22-11-1988
			US 4522037 A	11-06-1985
-----				
US 4123914	A	07-11-1978	NONE	
-----				
EP 1909047	A1	09-04-2008	AU 2006273496 A1	01-02-2007
			CN 101223405 A	16-07-2008
			EP 1909047 A1	09-04-2008
			JP 4001171 B2	31-10-2007
			JP 2007057220 A	08-03-2007
			KR 20080031412 A	08-04-2008
			TW I314634 B	11-09-2009
			US 2010139312 A1	10-06-2010
			WO 2007013345 A1	01-02-2007
-----				
US 6880353	B1	19-04-2005	CA 2510726 A1	08-01-2006
			US 6880353 B1	19-04-2005
-----				
US 3218819	A	23-11-1965	NONE	
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