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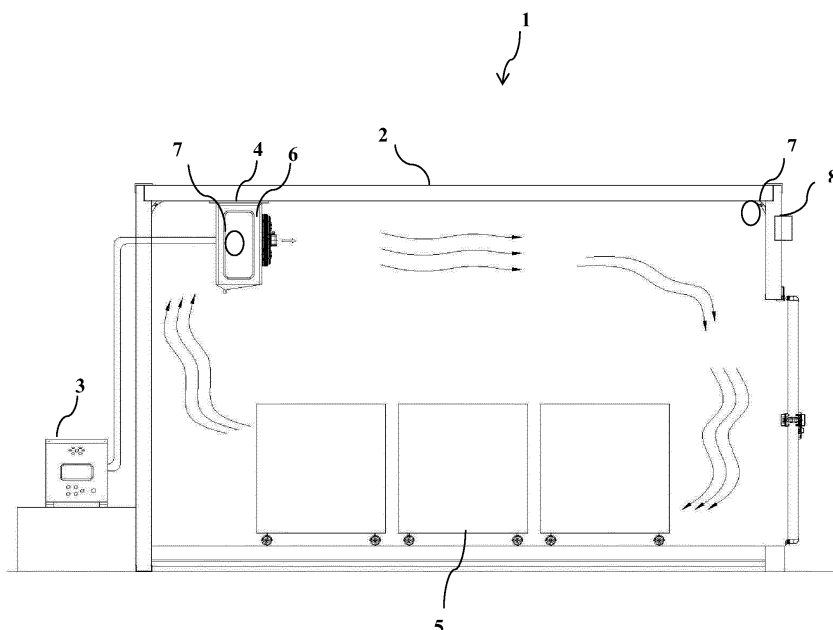
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(54) **A smart defrosting system and method**

(57) This invention is related to a smart defrosting system (1) and method (100) which ensures determination of frosting on the cooler or decrease in the melted frost mass, prevention of unnecessary defrost processes and prevention of loss of energy consumed for promptly

start and promptly end of melting process and heat loss occurred in cooling systems operating based on heat pump. The system (1) subject of invention contains cooling volume (2), condenser unit (3), cooler unit (4), Heat sensor (7) and control unit (8).

Figure 1





EUROPEAN SEARCH REPORT

Application Number
EP 12 16 5726

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	US 2003/182951 A1 (RAFALOVICH ALEXANDER [US] ET AL) 2 October 2003 (2003-10-02)	8-14	INV.
A	* paragraph [0032] - paragraph [0051]; figures 2, 3A-3C *	1-7	F25D21/02
	-----		F25D21/04
A	US 4 627 245 A (LEVINE MICHAEL R [US]) 9 December 1986 (1986-12-09)	1-14	F25D21/06
	* column 3 - column 6; figures 1-4 *		F25D29/00
	-----		F25D21/00
A	US 5 379 608 A (ISHIMARU KEIICHI [JP] ET AL) 10 January 1995 (1995-01-10)	1-14	
	* column 6 - column 15; figures 1-24 *		

			TECHNICAL FIELDS SEARCHED (IPC)
			F25D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 3 July 2013	Examiner Amous, Moez
CATEGORY OF CITED DOCUMENTS		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	
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			

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

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The members are as contained in the European Patent Office EDP file on
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03-07-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003182951 A1	02-10-2003	CA 2409732 A1	29-09-2003
		US 2003182951 A1	02-10-2003
		US 2005086955 A1	28-04-2005

US 4627245 A	09-12-1986	NONE	

US 5379608 A	10-01-1995	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82