



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**08.01.2014 Bulletin 2014/02**

(51) Int Cl.:  
**F25D 11/02** (2006.01) **F25D 29/00** (2006.01)  
**F25D 17/06** (2006.01)

(43) Date of publication A2:  
**29.06.2011 Bulletin 2011/26**

(21) Application number: **10186706.7**

(22) Date of filing: **06.10.2010**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**  
 Designated Extension States:  
**BA ME**

(72) Inventors:  
 • **Seo, Kook Jeong**  
**Gyeonggi-do (KR)**  
 • **Yoon, Won Jae**  
**Seoul (KR)**  
 • **Kim, Yong Han**  
**Chungnam (KR)**

(30) Priority: **22.12.2009 KR 20090129359**

(74) Representative: **Grünecker, Kinkeldey, Stockmair & Schwanhäusser**  
**Leopoldstrasse 4**  
**80802 München (DE)**

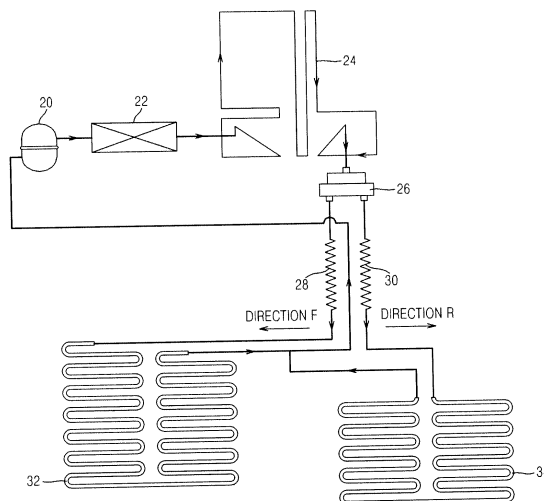
(71) Applicant: **Samsung Electronics Co., Ltd.**  
**Suwon-si, Gyeonggi-do, 443-742 (KR)**

(54) **Refrigerator and method of controlling operation thereof**

(57) A refrigerator in which an evaporator (32,34) is separately installed in each of a freezing chamber (12) and a refrigerating chamber (14) such that operations of the freezing chamber and the refrigerating chamber are independently controlled, and a method of controlling an operation thereof. An operation of the freezing chamber is performed first when the refrigerator starts to be oper-

ated in a parallel cycle to convert a flow of a refrigerant such that operations of the freezing chamber and the refrigerating chamber are independently performed using a 3-way valve (26), thereby achieving energy savings. Further, a check valve to prevent the refrigerant from flowing to a freezing chamber evaporator is omitted, thereby achieving production cost reduction.

FIG. 3





EUROPEAN SEARCH REPORT

Application Number  
EP 10 18 6706

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	EP 1 707 901 A2 (SANYO ELECTRIC CO [JP]) 4 October 2006 (2006-10-04) * paragraph [0025]; figures 4, 5, 8 * * paragraph [0026] * * paragraphs [0030] - [0031] * * paragraph [0047] * * paragraph [0071] * * paragraph [0073] * -----	1-15	INV. F25D11/02 F25D29/00  ADD. F25D17/06
X	EP 1 452 809 A1 (TOSHIBA KK [JP] TOSHIBA KK [JP]; TOSHIBA HA PRODUCTS CO LTD [JP]; TOSH) 1 September 2004 (2004-09-01) * figure 4 * -----	1-15	
X	EP 1 106 943 A2 (TOSHIBA CORP) 13 June 2001 (2001-06-13) * figure 1 * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			F25B F25D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 December 2013	Examiner Melo Sousa, Filipe
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	

1  
EPO FORM 1503 03.82 (P04C01)

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

EP 10 18 6706

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  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-12-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
EP 1707901	A2	04-10-2006	CN 1840987 A	04-10-2006
			EP 1707901 A2	04-10-2006
			JP 2006275496 A	12-10-2006
			US 2006218952 A1	05-10-2006
-----				
EP 1452809	A1	01-09-2004	CN 1582379 A	16-02-2005
			EP 1452809 A1	01-09-2004
			JP 3999961 B2	31-10-2007
			JP 2003139446 A	14-05-2003
			US 2005039469 A1	24-02-2005
			WO 03038352 A1	08-05-2003
-----				
EP 1106943	A2	13-06-2001	CN 1298083 A	06-06-2001
			DE 60021840 D1	15-09-2005
			DE 60021840 T2	01-06-2006
			EP 1106943 A2	13-06-2001
			HK 1037024 A1	27-01-2006
			JP 3462156 B2	05-11-2003
			JP 2001221556 A	17-08-2001
			KR 20010051119 A	25-06-2001
			TW 504560 B	01-10-2002
			US 6397608 B1	04-06-2002
			-----	

EPO FORM P0459

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