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(71) Applicant: **LG Electronics Inc.**
Seoul 150-721 (KR)

(72) Inventors:
• **Ha, Doyong**
153-802 SEOUL (KR)
• **Chung, Baikyoung**
153-802 SEOUL (KR)
• **Chang, Sedong**
153-802 SEOUL (KR)
• **Park, Junggyu**
153-802 SEOUL (KR)

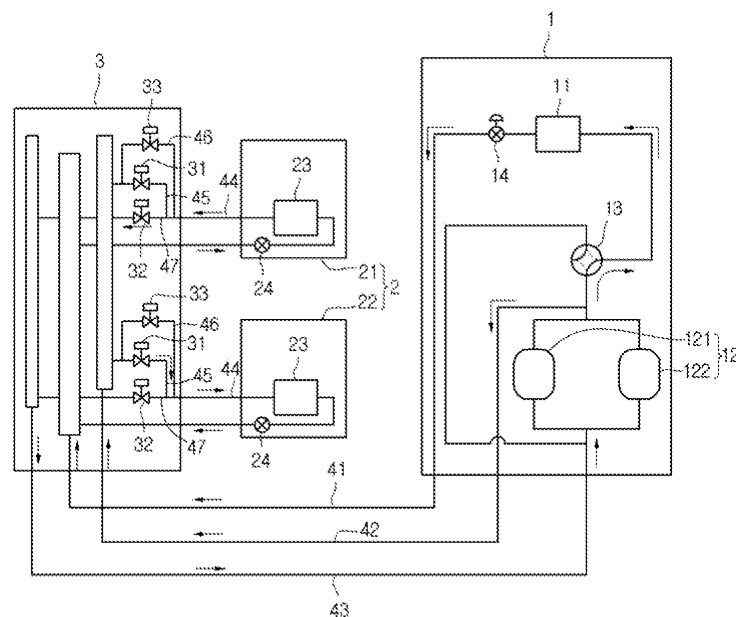
(74) Representative: **Cabinet Plasseraud**
52, rue de la Victoire
75440 Paris Cedex 09 (FR)

(54) **Refrigerant system**

(57) Provided is a refrigerant system including a high-pressure bypass tube (45) guiding a refrigerant of a high-pressure tube (42) to flow into an indoor unit tube by

bypassing a high-pressure valve (31). Thus, impact and noise that may be generated when an operation mode of an indoor unit (2) is switched to a heating mode may be minimized.

FIG.1





EUROPEAN SEARCH REPORT

Application Number
EP 10 19 7204

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 0 639 745 A1 (DAIKIN IND LTD [JP]) 22 February 1995 (1995-02-22) * page 8, line 54 - page 24, line 34; figures 1-17 *	1-15	INV. F25B49/02
	-----		ADD. F25B13/00
X	EP 1 921 400 A2 (LG ELECTRONICS INC [KR]) 14 May 2008 (2008-05-14) * paragraph [0011] - paragraph [0035]; figures 1-6 *	1-11	

			TECHNICAL FIELDS SEARCHED (IPC)
			F25B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 13 March 2013	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			

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**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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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 0639745	A1	22-02-1995	CN	1103239 A	31-05-1995
			DE	69426342 D1	04-01-2001
			DE	69426342 T2	26-04-2001
			EP	0639745 A1	22-02-1995
			ES	2153417 T3	01-03-2001
			JP	3289366 B2	04-06-2002
			JP	6257875 A	16-09-1994
			SG	43900 A1	14-11-1997
			US	5490399 A	13-02-1996
			WO	9420800 A1	15-09-1994

EP 1921400	A2	14-05-2008	AU	2006349942 A1	24-04-2008
			CN	101165411 A	23-04-2008
			EP	1921400 A2	14-05-2008
			KR	20080035271 A	23-04-2008
			US	2008092572 A1	24-04-2008
			WO	2008047968 A2	24-04-2008
