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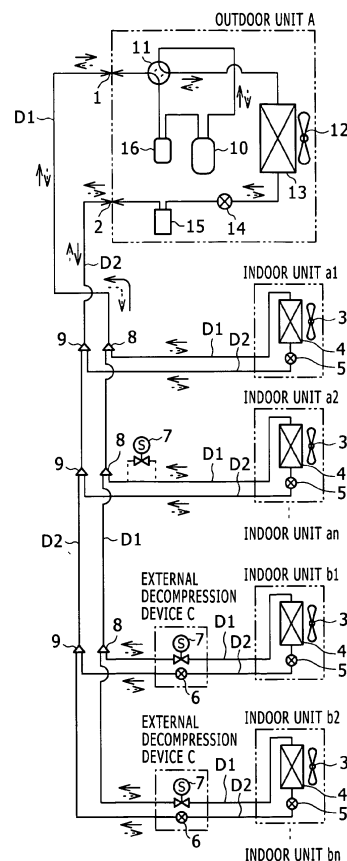
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(54) **Air conditioner and method for controlling the same**

(57) There is disclosed an air conditioner having an outdoor unit (A) and plural indoor units (a,b) connected by refrigerant pipes. The plural indoor units (a,b) include a first unit having an expansion valve (5) and a heat exchanger (4) incorporated therein, and a second indoor unit having a heat exchanger (4) incorporated therein. A decompression device including an expansion valve (6) and an on-off valve (7) is connected at the middle of the outward and inward refrigerant pipes connecting the second indoor unit (b) with the outdoor unit (A). This makes it possible to connect different types of indoor units, namely, the first indoor units (a) having the decompression device (5) incorporated therein and the second indoor units having no decompression device incorporated therein.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
EP 08 01 2385

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 2 194 651 A (TOSHIBA KK TOSHIBA KK [JP]) 9 March 1988 (1988-03-09) * page 2, line 46 - page 5, line 29; figures 1-5 *	1	INV. F25B13/00 F25B41/04 F25B45/00
A	----- EP 0 668 474 A2 (SANYO ELECTRIC CO [JP]) 23 August 1995 (1995-08-23) * column 6, line 22 - column 14, line 20; figures 1,2 *	1	
A	----- EP 1 304 532 A1 (DAIKIN IND LTD [JP]) 23 April 2003 (2003-04-23) * paragraph [0037] - paragraph [0135]; figures 1-21 *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			F25B
3 The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 2 May 2011	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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Application Number

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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:

see additional sheet(s)

☐ 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. claim: 1

Air conditioner

2. claims: 4, 5

Method for controlling an air conditioner comprising the steps of closing, when stopping the arbitrary indoor unit, the valve provided in an outward pipe of the plurality of refrigerant pipes, while opening the valve provided in the other refrigerant pipe; operating the arbitrary indoor unit for a predetermined period of time in such a state; and collecting the refrigerant from the arbitrary indoor unit into the outdoor unit via the open valve.

3. claims: 2, 6, 7

An air conditioner and method wherein the plurality of indoor units include a first indoor unit having an expansion valve and heat exchanger incorporated therein, and comprises the step of closing the valve provided in one of the plurality of refrigerant pipes connected to the second indoor unit, which is assigned to the outward flow, while opening the valve provided in the other refrigerant pipe; operating the second indoor unit for a predetermined period of time in such a state; and collecting the refrigerant from the second indoor unit into the outdoor unit via the open valve.

4. claims: 3, 8, 9

An air conditioner and method wherein the plurality of indoor units include a first indoor unit having an expansion valve and a heat exchanger incorporated therein, and comprising the steps of: closing the expansion valve of the first indoor unit while opening the on-off valve; operating the first indoor unit for a predetermined period of time in such a state; and collecting the refrigerant from the first indoor unit into the outdoor unit via the open on-off valve.

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

EP 08 01 2385

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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02-05-2011

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