(11) **EP 1 837 607 A3**

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 15.07.2009 Bulletin 2009/29

(51) Int Cl.: **F24F** 1/00 (2006.01)

F24F 13/20 (2006.01)

(43) Date of publication A2: **26.09.2007 Bulletin 2007/39**

(21) Application number: 06256070.1

(22) Date of filing: 28.11.2006

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated Extension States:

AL BA HR MK RS

(30) Priority: 20.03.2006 KR 20060025449 20.03.2006 KR 20060025450

(71) Applicant: LG Electronics Inc. Youngdungpo-Gu Seoul (KR) (72) Inventors:

 Son, Yang Mo Hwoiwon-ku, Masan-si, Kyungsangnam-do (KR)

 Lee, Won Bai Daejeon-si (KR)

(74) Representative: Palmer, Jonathan R.

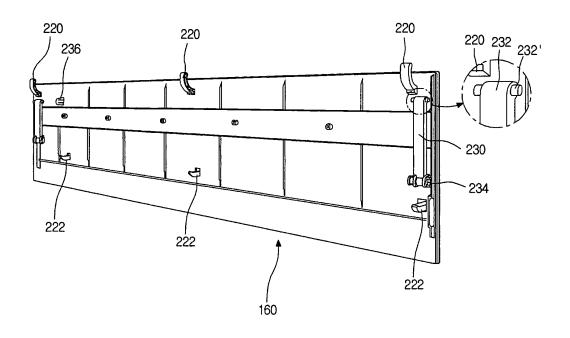
Boult Wade Tennant, Verulam Gardens, 70 Gray's Inn Road London WC1X 8BT (GB)

(54) Indoor unit for air conditioner

(57) An indoor unit (100) for an air conditioner includes a front frame (130), a front panel (160) pivotally coupled to the front frame (130), one or more coupling

ribs (220) provided on a side of the front panel to function as a pivot shaft of the front panel, and a supporting link (222) for maintaining an opened state of the front panel (160) from the front frame (130).

Fig.11





EUROPEAN SEARCH REPORT

Application Number EP 06 25 6070

A X A	Citation of document with indi- of relevant passage W0 03/014628 A (LG E LEE KAM GYU [KR]; 0Ci 20 February 2003 (200 * page 22, line 5 - 1-3,4b,5a,6,8b * * abstract * * page 17, line 14 - JP 2000 111082 A (FU 18 April 2000 (2000-0 * abstract * EP 1 630 481 A (SANYO SANYO AIR CONDITIONE 1 March 2006 (2006-0 * abstract; figures 4	LECTRONICS INC [KR]; (JU HO [KR]) 03-02-20) line 10; figures page 18, line 16 * DITSU GENERAL LTD) 04-18) DELECTRIC CO [JP]; RS CO LTD [JP])	Relevant to claim 1-4,7-10 5,6,11, 12 1-3 4-12 1-12	CLASSIFICATION OF THE APPLICATION (IPC) INV. F24F1/00 F24F13/20		
A X A	LEE KAM GYU [KR]; OCI 20 February 2003 (200 * page 22, line 5 - 1-3,4b,5a,6,8b * * abstract * page 17, line 14 - JP 2000 111082 A (FURL 18 April 2000 (2000-0 * abstract * EP 1 630 481 A (SANYO AIR CONDITIONE 1 March 2006 (2006-0 * abstract; figures 4 abstract; figures 4 abstract;	C JU HO [KR]) 03-02-20) line 10; figures page 18, line 16 * 01TSU GENERAL LTD) 04-18) 0 ELECTRIC CO [JP]; 08 CO LTD [JP])	5,6,11, 12 1-3 4-12	F24F1/00		
X A A	* abstract * * page 17, line 14 - JP 2000 111082 A (FU. 18 April 2000 (2000-0 * abstract * EP 1 630 481 A (SANYO SANYO AIR CONDITIONE 1 March 2006 (2006-0 * abstract; figures	DITSU GENERAL LTD) 04-18) 0 ELECTRIC CO [JP]; RS CO LTD [JP])	1-3 4-12			
A A	18 April 2000 (2000-0 * abstract * EP 1 630 481 A (SANYO SANYO AIR CONDITIONED 1 March 2006 (2006-00 * abstract; figures 4	04-18) D ELECTRIC CO [JP]; RS CO LTD [JP]) 3-01)	4-12			
A	EP 1 630 481 A (SANYO SANYO AIR CONDITIONE 1 March 2006 (2006-03 * abstract; figures	RS CO LTD [JP]) 3-01)				
	SANYO AIR CONDITIONE 1 March 2006 (2006-0) * abstract; figures	RS CO LTD [JP]) 3-01)	1-12			
v l	HC E E7E 226 A (ACAM					
	AL) 19 November 1996	: YASUTOSHI [JP] ET (1996-11-19) - line 39; figure 4 *	13-16	TECHNICAL FIFT DO		
	JP 04 106331 A (SANY0 8 April 1992 (1992-04 * abstract; figures	l-08)	13-16	TECHNICAL FIELDS SEARCHED (IPC)		
	KR 2004 0041444 A (SALTD) 17 May 2004 (2004 * abstract; figures		13-20			
	The present search report has bee	en drawn up for all claims				
	Place of search	Date of completion of the search		Examiner		
Munich		28 May 2009	Vuc	, Arianda		
X : partio Y : partio docui A : techr	TEGORY OF CITED DOCUMENTS bularly relevant if taken alone bularly relevant if combined with another ment of the same category lological background written disclosure	E : earlier patent d after the filing D : document cited L : document cited	l in the application for other reasons	hed on, or		



Application Number

EP 06 25 6070

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:						
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

EP 06 25 6070

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. claims: 1-12

Indoor unit for air conditioner, comprising a front panel pivotally coupled to a front frame, coupling ribs on a side of the front panel, and a supporting link

2. claims: 13-20

Indoor unit for air conditioner, comprising a front panel coupled to a front frame, a coupling rib extending from the rear surface of the front panel, and a supporting link

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

EP 06 25 6070

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.

28-05-2009

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03014628	A	20-02-2003	AU 2002324347 A1 CN 1401944 A CN 2564922 Y KR 20030014538 A	24-02-20 12-03-20 06-08-20 19-02-20
JP 2000111082	Α	18-04-2000	NONE	
EP 1630481	Α	01-03-2006	JP 2006090695 A KR 20060050138 A TW 269015 B	06-04-20 19-05-20 21-12-20
US 5575326	Α	19-11-1996	AU 666434 B2 AU 6055094 A CN 1098492 A ES 2114369 A1 JP 7055184 A	08-02-19 16-02-19 08-02-19 16-05-19 03-03-19
JP 4106331	Α	08-04-1992	NONE	
KR 20040041444	 А	17-05-2004	NONE	

FORM P0459

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