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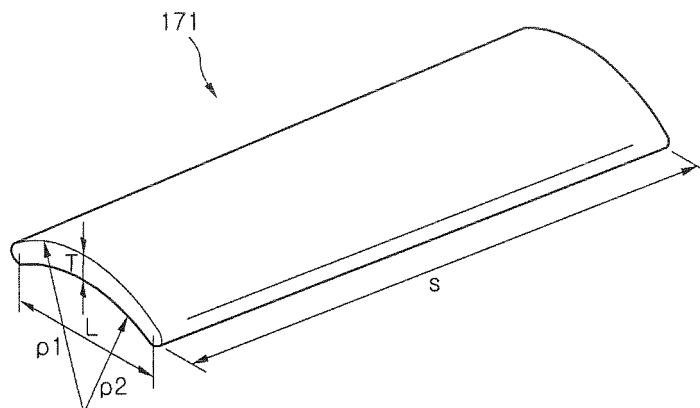
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(54) **Indoor unit for air conditioning apparatus**

(57) The present invention relates to an indoor unit for an air conditioning apparatus and relates to an optimized design of a fan that can reduce noise and flow resistance in an indoor unit to which a cross flow fan is

applied. As the cross flow fan according to the embodiment of the present invention is applied, fan noise can be reduced and flow resistance of air passing through a heat exchanger can be reduced.

Figure 5





EUROPEAN SEARCH REPORT

Application Number
EP 09 16 7807

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 2002/172588 A1 (IKEDA TAKASHI [JP] ET AL) 21 November 2002 (2002-11-21) * paragraph [0097] - paragraph [0116] * * figures *	1-5	INV. F24F1/00 F24F7/007
X	JP 5 044686 A (DAIKIN IND LTD) 23 February 1993 (1993-02-23) * columns 2,9 * * abstract; figures *	1	
A	EP 1 632 725 A1 (MITSUBISHI ELECTRIC CORP [JP]) 8 March 2006 (2006-03-08) * paragraph [0015] * * paragraph [0024] * * paragraph [0044] - paragraph [0049] * * figures *	1	
A	JP 7 012094 A (ISHIKAWAJIMA HARIMA HEAVY IND) 17 January 1995 (1995-01-17) * abstract; figures *	1	
A	JP 1 193099 A (DIESEL KIKI CO) 3 August 1989 (1989-08-03) * abstract; figures *	1	TECHNICAL FIELDS SEARCHED (IPC) F24F F04D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 February 2011	Examiner Mattias Grenbäck
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.**

EP 09 16 7807

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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08-02-2011

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002172588	A1	21-11-2002	AU 767078 B2	30-10-2003
			AU 7673401 A	15-04-2002
			CN 1392940 A	22-01-2003
			EP 1321721 A1	25-06-2003
			ES 2312458 T3	01-03-2009
			WO 0229331 A1	11-04-2002
			JP 3872012 B2	24-01-2007

JP 5044686	A	23-02-1993	NONE	

EP 1632725	A1	08-03-2006	CN 1820166 A	16-08-2006
			ES 2326810 T3	20-10-2009
			HK 1091258 A1	24-07-2009
			WO 2005093330 A1	06-10-2005
			JP 4196346 B2	17-12-2008
			JP 2005274051 A	06-10-2005
			US 2007084235 A1	19-04-2007

JP 7012094	A	17-01-1995	JP 3186346 B2	11-07-2001

JP 1193099	A	03-08-1989	NONE	
