

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2010/052772

A. CLASSIFICATION OF SUBJECT MATTER INV. F03D1/06 ADD.		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) F03D B64C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EP0-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 30 45 695 A1 (MUELLER HANS) 19 August 1982 (1982-08-19)	1,2,6,7, 9,11
Y	abstract; figure 1	3-5,8, 10,12-15
X	----- WO 2007/045244 A1 (LM GLASFIBER AS [DK]; GRABAU PETER [DK]) 26 April 2007 (2007-04-26) abstract; figures 3-7	1,3,6-12
X	----- EP 1 524 431 A1 (NATENCO NATURAL ENERGY CORP GM [DE]) 20 April 2005 (2005-04-20) claims; figures	1,2,5-7, 9,11
E	----- EP 2 194 267 A2 (GEN ELECTRIC [US]) 9 June 2010 (2010-06-09) paragraphs [0006], [0007], [0009] - [0015]; figures 2-5 ----- -/-	1-12
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
Date of the actual completion of the international search 24 May 2011		Date of mailing of the international search report 01/06/2011
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Libeaut, Laurent

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2007/071249 A1 (LM GLASFIBER AS [DK]; GRABAU PETER [DK]) 28 June 2007 (2007-06-28) the whole document -----	3-5,8, 10,12
X	US 5 058 837 A (WHEELER GARY O [US]) 22 October 1991 (1991-10-22)	16-18
Y	abstract; figures 23-25 column 9, lines 1-44 column 11, lines 30-36 -----	13-15
X	US 3 578 264 A (KUETHE ARNOLD M ARNOLD M KUETHE [US]) 11 May 1971 (1971-05-11)	16-18
A	column 6, lines 15-28, 53-56 column 7, lines 41-55; figures 12a, 12b -----	13-15
X	US 5 253 828 A (COX RONALD A [US]) 19 October 1993 (1993-10-19)	16-18
A	the whole document -----	13-15
X	JP 2 032000 A (MITSUBISHI HEAVY IND LTD) 1 February 1990 (1990-02-01)	16,17
A	abstract; figures -----	13,14
A	EP 1 944 505 A1 (SIEMENS AG [DE]) 16 July 2008 (2008-07-16) the whole document -----	1-18
A	CA 2 642 840 A1 (REPOWER SYSTEMS AG [DE]) 25 October 2007 (2007-10-25) the whole document -----	1-12

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12

A wind turbine comprising a rotor with at least one blade having a flap which is arranged to at least partly extend along at least a part of a threshold thickness section of the blade in which the airfoil thickness is at least 36% of its chord length, the flap being arranged so that a slot is provided between the threshold thickness section and the flap, the chord of the flap being at least 15% of the chord of the threshold thickness section. The wind turbine is further characterized by more restricted thickness ratio and flap chord length.

2. claims: 1, 13-18

A wind turbine comprising a rotor with at least one blade, such that vortex generating means are provided on the suction side of a flap arranged to at least partly extend downstream of at least a part of the blade, the flap being arranged so that a slot is provided between the threshold thickness section and the flap.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 3045695	A1	19-08-1982	NONE	
WO 2007045244	A1	26-04-2007	AT 454552 T CA 2625997 A1 CN 101300419 A DK 176317 B1 EP 1945942 A1 EP 2163760 A1 EP 2172648 A1 ES 2340522 T3 US 2009232656 A1	15-01-2010 26-04-2007 05-11-2008 30-07-2007 23-07-2008 17-03-2010 07-04-2010 04-06-2010 17-09-2009
EP 1524431	A1	20-04-2005	DE 10348060 A1	19-05-2005
EP 2194267	A2	09-06-2010	CN 101749188 A US 2010135811 A1	23-06-2010 03-06-2010
WO 2007071249	A1	28-06-2007	CN 101341332 A DK 176352 B1 EP 1963669 A1 US 2009104038 A1	07-01-2009 10-09-2007 03-09-2008 23-04-2009
US 5058837	A	22-10-1991	CA 2014014 A1 EP 0466826 A1 WO 9011929 A1	07-10-1990 22-01-1992 18-10-1990
US 3578264	A	11-05-1971	DE 1934246 A1 FR 2012571 A1 GB 1281899 A	22-01-1970 20-03-1970 19-07-1972
US 5253828	A	19-10-1993	NONE	
JP 2032000	A	01-02-1990	NONE	
EP 1944505	A1	16-07-2008	CA 2617750 A1 CN 101220799 A JP 2008169846 A US 2008317600 A1	12-07-2008 16-07-2008 24-07-2008 25-12-2008
CA 2642840	A1	25-10-2007	CN 101711308 A DE 102006017897 A1 EP 2004990 A1 WO 2007118581 A1 US 2009274559 A1	19-05-2010 18-10-2007 24-12-2008 25-10-2007 05-11-2009