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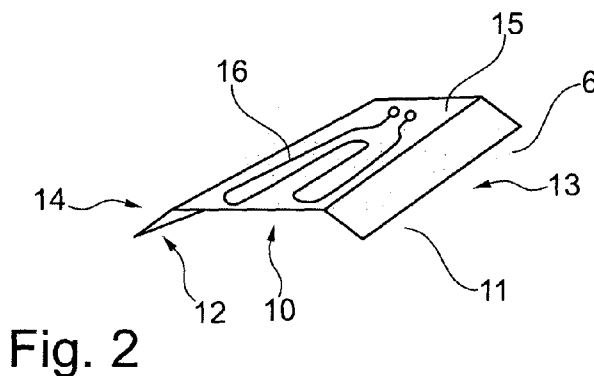
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(54) Title: HEATING FAN



(57) Abstract: Heating fan, where said fan comprises fastening means for fastening of said fan to a first surface, a stem connecting the fastening means to a hub, where said hub comprises a motor unit, where said motor unit rotates a plurality of wings extending radially from said hub, such that the wings have an upper and a lower surface, characterised in that each wing has a leading and trailing edge, defining upper and lower surfaces there between where at least one wing has electrical heating means integrated or connected to said upper surface, where at least more than half the length of the leading and/or trailing edge is bent downwards relative to the surface of the wing.

INTERNATIONAL SEARCH REPORT

International application No
PCT/DK2012/050045

A. CLASSIFICATION OF SUBJECT MATTER
INV. F04D25/08 F04D29/38 F24H3/04
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)
F04D F24H

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 practicable, search terms used)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 964 211 A2 (ELETTRICOMPONENTI S R L [IT]; PIGOZZI MAURO [IT]) 15 December 1999 (1999-12-15)	1,3,4,9,10
Y	paragraphs [0010] - [0012]; figures 1,2 -----	2
X	GB 1 208 928 A (WYNN EDWARD DONALD) 14 October 1970 (1970-10-14) page 1, line 47 - page 2, line 70; figures 1,12-15 -----	1,3,4,9,10
A	WO 99/49700 A2 (THERMO & BULL [US]) 30 September 1999 (1999-09-30) page 3, line 22 - page 4, last line; figures 1,2 -----	1-4,9,10
A	AU 578 345 B2 (ALBERT JAMES KEOUGH) 20 October 1988 (1988-10-20) pages 2-4; figures A-C ----- -/--	1-4,9,10

☒ Further documents are listed in the continuation of Box C.

☒ 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 application or patent but published on or after the international filing date

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"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

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Date of the actual completion of the international search

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No
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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	US 2008/069698 A1 (LAISATHIT KARUN [TH]) 20 March 2008 (2008-03-20) paragraph [0021]; figures 4,5 -----	2
A	US 2003/190234 A1 (HUANG YUNG-CHUNG [TW]) 9 October 2003 (2003-10-09) figures 2A-7B -----	2
A	muRata Manufacturing Co., Ltd.: "PTC Thermistor (POSISTOR)", 1 March 2008 (2008-03-01), pages 1-12, XP002675920, Retrieved from the Internet: URL: http://www.murata.com/products/catalog/pdf/r16e.pdf [retrieved on 2012-05-14] pages 3,8 -----	4

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/DK2012/050045

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0964211	A2	15-12-1999	EP 0964211 A2	15-12-1999
			IT MI981324 A1	13-12-1999

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US 2008069698	A1	20-03-2008	CN 201155485 Y	26-11-2008
			US 2008069698 A1	20-03-2008
			US 2008069700 A1	20-03-2008

US 2003190234	A1	09-10-2003	NONE	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2012/050045

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.:

1-4, 9, 10

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: 1-4, 9, 10

Heating fan wings with integrated heating means

2. claims: 5-8

A collector for transfer of electrical power from the hub to the wings of a heating fan
