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- before the expiration of the time limit for amending the
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(54) Title: CURRENT DIVERTER RING

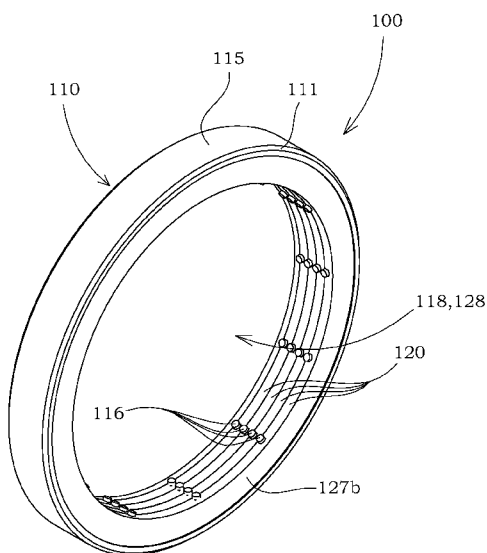


FIG. 16A

(57) Abstract: The current diverter rings and bearing isolators serve to dissipate an electrical charge from a rotating piece of equipment to ground, such as from a motor shaft to a motor housing. One embodiment of the current diverter ring includes an inner body and an outer body configured to clamp at least one conductive segment between them. In the preferred embodiments of the current diverter ring, the conductive segments are positioned in radial channels. The outer body may be affixed to a shaft, a motor housing, a bearing isolator, or other structure. The bearing isolator may incorporate a retention chamber for holding conductive segments within the stator of the bearing isolator, or the bearing isolator may be fashioned with a receptor groove into which a current diverter ring may be mounted.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/034139**A. CLASSIFICATION OF SUBJECT MATTER*****H01R 39/12(2006.01)i***

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)

H01R 39/12; H02K 7/02; H02K 11/00; H02K 5/16

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords:multi-ring, current diverter, diverter ring

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002-0121821 A1 (ALLEN MICHAEL RITTER) 05 September 2002 See abstract, paragraphs [0024]-[0025], claim 1, figure 3	1-20
A	US 7071589 B2 (RODNEY BRAMEL et al.) 04 July 2006 See abstract, claim 1, figure 3	1-20
A	US 05912516 A (ATKINSON; MICHAEL JOHN et al.) 15 June 1999 See abstract, claim 1, figure 2	1-20
A	US 6984906 B1 (WALTER JOHN MARTINY, JR.) 10 January 2006 See abstract, claims 1, 3-5, 8-9, figure 4	1-20

☐ 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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"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

06 NOVEMBER 2012 (06.11.2012)

Date of mailing of the international search report

09 NOVEMBER 2012 (09.11.2012)

Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2012/034139**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.: 21
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:

The terms 'any new inventive step, act, combination' and 'described herein' used in claim 21 are vague and unclear and leave the reader in doubt as to the meaning of the technical features to which they refer, thereby the definition of the subject matter of the said claim unclear(PCT Article 6)
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:

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 fee, this Authority did not invite payment of any additional fee.
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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/034139

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002-0121821 A1	05.09.2002	None	
US 7071589 B2	04.07.2006	CA 2466287 A1 EP 1448905 A1 JP 2005-510189 A TW 1274456B TW 274456 A TW 274456 B US 2003-0086630 A1 WO 03-042560 A1	22.05.2003 25.08.2004 14.04.2005 21.02.2007 21.02.2007 21.02.2007 08.05.2003 22.05.2003
US 05912516 A	15.06.1999	GB 2324913 A JP 10-285838 A	04.11.1998 23.10.1998
US 6984906 B1	10.01.2006	None	