

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/EP2018/051625

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. H02K5/20 H02K9/197 H02K1/32  
 ADD. H02K9/19

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)  
 H02K

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)  
 EPO-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	US 2015/214817 A1 (KIM SANG-JIN [KR]) 30 July 2015 (2015-07-30)	1-4,6,7
Y	paragraphs [0032] - [0034], [0054] figures 3-6	5
X	----- WO 2013/152473 A1 (GEN ELECTRIC [US]; XU ZHIHAI [CN]; LI KULFENG [CN]) 17 October 2013 (2013-10-17) figure 2	1
Y	----- US 2015/280525 A1 (RIPPEL WALLY E [US] ET AL) 1 October 2015 (2015-10-01) figure 1a	5
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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 <b>16 March 2018</b>	Date of mailing of the international search report <b>26/03/2018</b>
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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 <b>Dragojlovic, Djordje</b>
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/051625

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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			KR 20150089469 A
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			DE 112012006221 T5
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			KR 20160145045 A
			US 2015280525 A1
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