

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/083673

A. CLASSIFICATION OF SUBJECT MATTER <i>H02M 1/32</i> (2007.01)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) H02M		
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	YI ZANG ET AL. "Control Method for Cascaded H-Bridge Multilevel Inverter Failures" <i>INTELLIGENT CONTROL AND AUTOMATION, 2006. WCICA 2006. THE SIXTH WORLD CONGRESS ON DALIAN, CHINA 21-23 JUNE 2006, PISCATAWAY, NJ, USA, IEEE, Vol. 2, 21 June 2006 (2006-06-21), pages 8462-8466</i> ISBN: 978-1-4244-0332-5. XP010946729	1,4-10
Y	figure 1 paragraph [III.A]	2,3
Y	BRANDO G ET AL. "Failure adapted techniques to improve service dependability in systems using fault-tolerant converters" <i>DIAGNOSTICS FOR ELECTRIC MACHINES, POWER ELECTRONICS AND DRIVES, 2007. SDEMPED 2007. IEEE INTERNATIONAL SYMPOSIUM ON, IEEE, PI, 01 September 2007 (2007-09-01), pages 64-69</i> ISBN: 978-1-4244-1061-3. XP031167165 figure 1 paragraph [000I]	2,3
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>		
Date of the actual completion of the international search 24 September 2019		Date of mailing of the international search report 01 October 2019
Name and mailing address of the ISA/EP European Patent Office p.b. 5818, Patentlaan 2, 2280 HV Rijswijk Netherlands Telephone No. (+31-70)340-2040 Facsimile No. (+31-70)340-3016		Authorized officer Gotzig, Bernhard Telephone No.

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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>ALIAN CHEN ET AL. "A multilevel converter topology with fault tolerant ability" <i>2004 IEEE APPLIED POWER ELECTRONICS CONFERENCE AND EXPOSITION, APEC 04, IEEE, ANAHEIM, CA, USA</i>, Vol. 3, 22 February 2004 (2004-02-22), pages 1610-1616 DOI: 10.1109/APEC.2004.1296080 ISBN: 978-0-7803-8269-5. XP010703838 figures 3A,3B</p>	1,8
A	<p>ZHANG WENPING ET AL. "Survey on Fault-Tolerant Techniques for Power Electronic Converters" <i>IEEE TRANSACTIONS ON POWER ELECTRONICS, INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, USA</i>, Vol. 29, No. 12, 01 December 2014 (2014-12-01), pages 6319-6331, [retrieved on 2014-08-13] DOI: 10.1109/TPEL.2014.2304561 ISSN: 0885-8993, XP011556075 paragraph [IV.A] figure 4</p>	1-10