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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

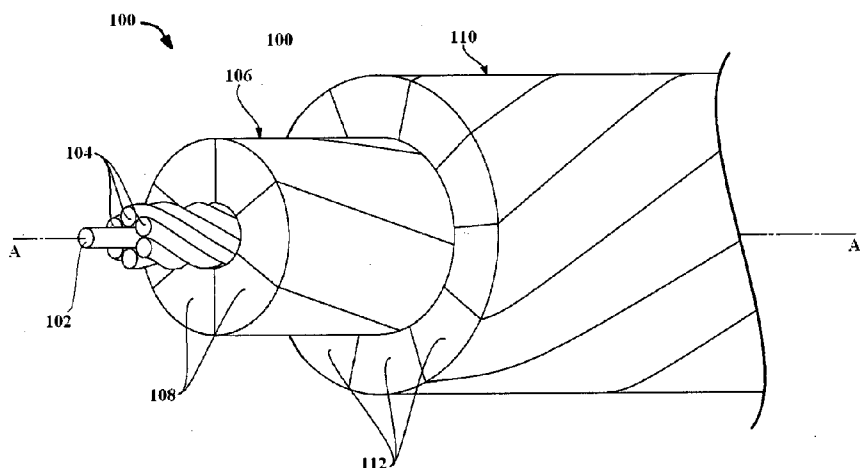
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(54) Title: ELECTRICAL POWER CONDUCTOR



(57) Abstract: An electrical power conductor (100, 300) having the advantages of improved ampacity, robustness, reduced losses, lesser sagging and better aging resistance is provided. The electric power conductor comprises multiple strands (108, 112, 306, 310) for conducting electricity; at least two of the multiple strands are made of an alloy selected from (I) an aluminum alloy comprising 0.30-0.40 wt. % Si and 0.30-0.40 wt. % Mg and (II) an aluminum alloy comprising 0.15-0.25 wt. % Cu, 0.15-0.25 wt. % Fe and less than 0.07 wt. % Mg. The cross-sectional shape of each of the at least two of the multiple strands is non-circular. The at least two of the multiple strands are laid around the longitudinal axis of the power conductor in a manner such that within the cross-section of the power conductor, the cross-section of each of the at least two of the multiple strands is not in tangential contact with the cross-section of at least one of the strands adjacent to it.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/IN2012/000686

A. CLASSIFICATION OF SUBJECT MATTER

See the extra sheet

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)

IPC: H01B, C22C21

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)

CNPAT, EPODOC, WPI, CNKI: strand, twist, aluminum, alloy, si, silicon, mg, magnesium, cu, copper, fe, iron, transmission, overhead, trapez+, sector, echelon

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/0193767 A1 (ALEXANDRE M et al.) 23 August 2007 (23.08.2007) description, paragraphs [0029] and [0047], and figure 2	3-9
Y		1,2
Y	JP 56-29645 A (FURUKAWA ELECTRIC CO LTD) 25 March 1981 (25.03.1981) claim 1, and table 1	1,2
Y	JP 61-207542 A (YAZAKI CORP) 13 September 1986 (13.09.1986) description, column 3, paragraph [0003] to column 5, paragraph [0001]	1,2

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

☒ See patent family annex.

* Special categories of cited documents:	“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
“A” document defining the general state of the art which is not considered to be of particular relevance	“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
“E” earlier application or patent but published on or after the international filing date	“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
“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)	“&” document member of the same patent family
“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	

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INTERNATIONAL SEARCH REPORT
Information on patent family members

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Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
US 2007/0193767 A1	23.08.2007	KR 20070079320 A	06.08.2007
		BR PI0705316 A2	28.07.2009
		FR 2896911 A1	03.08.2007
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		EP 1816654 A2	08.08.2007
		AU 2007200369 A1	16.08.2007
		CA 2575625 A1	01.08.2007
		BR PI0700216 A	06.11.2007
		AU 2007200369 B2	24.01.2013
JP 56-29645 A	25.03.1981	JP 61019697 B2	19.05.1986
JP 61-207542 A	13.09.1986	JP 63004893 B2	01.02.1988

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