

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2017/044301

<p>A. CLASSIFICATION OF SUBJECT MATTER Int.Cl. H01M10/052 (2010.01) i, H01M4/13 (2010.01) i, H01M4/36 (2006.01) i, H01M4/485 (2010.01) i, H01M4/505 (2010.01) i, H01M4/525 (2010.01) i, H01M4/587 (2010.01) i, H01M4/62 (2006.01) i, H01M10/0567 (2010.01) i According to International Patent Classification (IPC) or to both national classification and IPC</p>										
<p>B. FIELDS SEARCHED</p>										
<p>Minimum documentation searched (classification system followed by classification symbols) Int.Cl. H01M10/052, H01M4/13, H01M4/36, H01M4/485, H01M4/505, H01M4/525, H01M4/587, H01M4/62, H01M10/0567</p>										
<p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <table style="width:100%; border:none;"> <tr> <td style="padding-left: 20px;">Published examined utility model applications of Japan</td> <td style="text-align: right;">1922-1996</td> </tr> <tr> <td style="padding-left: 20px;">Published unexamined utility model applications of Japan</td> <td style="text-align: right;">1971-2018</td> </tr> <tr> <td style="padding-left: 20px;">Registered utility model specifications of Japan</td> <td style="text-align: right;">1996-2018</td> </tr> <tr> <td style="padding-left: 20px;">Published registered utility model applications of Japan</td> <td style="text-align: right;">1994-2018</td> </tr> </table>			Published examined utility model applications of Japan	1922-1996	Published unexamined utility model applications of Japan	1971-2018	Registered utility model specifications of Japan	1996-2018	Published registered utility model applications of Japan	1994-2018
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Published unexamined utility model applications of Japan	1971-2018									
Registered utility model specifications of Japan	1996-2018									
Published registered utility model applications of Japan	1994-2018									
<p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p>										
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p>										
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.								
A	WO 2012/111813 A1 (TOSHIBA CORPORATION) 23 August 2012 & US 2013/0330613 A1 & EP 2677572 A1 & CN 103314471 A	1-5								
A	JP 2007-173150 A (GS YUASA CORPORATION) 05 July 2007 (Family: none)	1-5								
A	JP 2010-50079 A (SANYO ELECTRIC CO., LTD.) 04 March 2010 & US 2009/0239146 A1	1-5								
<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.</p>										
<p>* Special categories of cited documents:</p> <table style="width:100%; border:none;"> <tr> <td style="width:50%; vertical-align: top;"> <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> </td> <td style="width:50%; vertical-align: top;"> <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> </td> </tr> </table>			<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>						
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<p>Date of the actual completion of the international search 13 February 2018</p>		<p>Date of mailing of the international search report 20 February 2018</p>								
<p>Name and mailing address of the ISA/ Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan</p>		<p>Authorized officer</p> <p>Telephone No.</p>								

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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.
A	JP 10-162860 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 19 June 1998 (Family: none)	1-5