Title: SYSTEM AND METHODS FOR CHARGING BATTERIES

Abstract: A high frequency battery charger includes a converter, drive logic, and control logic. The converter transforms a DC voltage into a high frequency AC voltage. The drive logic controls a conversion of the high frequency AC voltage through a train of pulses. The control logic adjusts the output of the converter to maximize a charging cycle of a battery. The method of transforming an AC input into a direct current output used to charge a rechargeable battery includes transforming an AC input into a first DC output; transforming the first DC output into a high frequency AC output; transforming the high frequency AC output into a second DC output; and passing a charging current to an external load when the load is correctly connected to an output.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : H02M 5/42; H02J 7/00
US CL. : 363/89, 127; 320/145

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)
U.S. : 363/89, 127; 320/145

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 5680031 [PAVLIC et al.] 21 October 1997 [21.10.1997], the whole disclosure</td>
<td>1-43</td>
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<td>Y</td>
<td>US 6495992 [PAVLIC] 17 December 2002 [17.12.2002], the whole disclosure</td>
<td>1-43</td>
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<td>Y</td>
<td>US 6577517 B2 [JAIN et al.] 10 June 2003 [10/06.2003], the whole disclosure</td>
<td>1-43</td>
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Date of the actual completion of the international search

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25 OCT 2005

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