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DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,  
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,  
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,  
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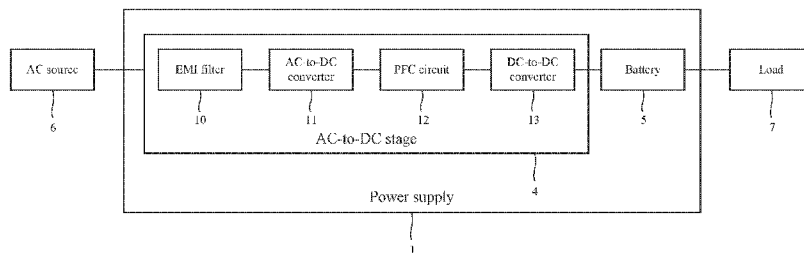


Fig. 1

(57) Abstract: A power supply (1) comprising input terminals for connection to an AC source (6), output terminals for connection to a load (7), an AC-to-DC stage (4), and a battery (5). The AC-to-DC stage (4) and the battery (5) are connected in parallel between the input terminals and the output terminals. The power supply operates in either a first mode or a second mode. When operating in the first mode, the load draws current from the battery only. When operating in the second mode, the load draws current from both the battery and the AC-to-DC stage. More specifically, when operating in the second mode, the AC-to-DC stage draws an input current from the AC source and outputs an output current having a waveform that is periodic with a frequency twice that of the input current and a ripple of at least 50%. The current drawn by the load is then greater than the current output by the AC-to-DC stage during first periods, and is less than the current output by the AC-to-DC stage during second periods. The load draws current from the battery and the AC-to-DC stage during the first periods such that the battery discharges, and the load and the battery each draw current from the AC-to-DC stage during the second periods such that the battery charges.



INTERNATIONAL SEARCH REPORT

International application No  
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A. CLASSIFICATION OF SUBJECT MATTER  
 INV. H02J7/00 H02J7/02 H01M10/42 H02J7/34 H02J9/06  
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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)  
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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	WO 2012/029024 A1 (BRUSA ELEKTRONIK AG [CH]; KRAUSE AXEL [CH]) 8 March 2012 (2012-03-08) page 7, line 1 - page 23, paragraph 19; figures 7-17	1-16
X	US 2011/291611 A1 (MANOR DROR [IL]) 1 December 2011 (2011-12-01) paragraph [0006] - paragraph [0069]; figures 1-5	1-16
A	KR 2013 0047145 A (LG ELECTRONICS INC [KR]) 8 May 2013 (2013-05-08) the whole document	1-16
A	JP 2010 088150 A (TDK CORP) 15 April 2010 (2010-04-15) the whole document	1-16

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2012029024	A1	08-03-2012	NONE
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US 2011291611	A1	01-12-2011	CN 102405576 A 04-04-2012
		EP 2389716 A1	30-11-2011
		US 2011291611 A1	01-12-2011
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JP 2010088150	A	15-04-2010	NONE
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