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CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
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9 June 2011

- (54) Title:** SYSTEM AND METHOD FOR REJECTING DC CURRENT IN POWER FACTOR CORRECTION SYSTEMS

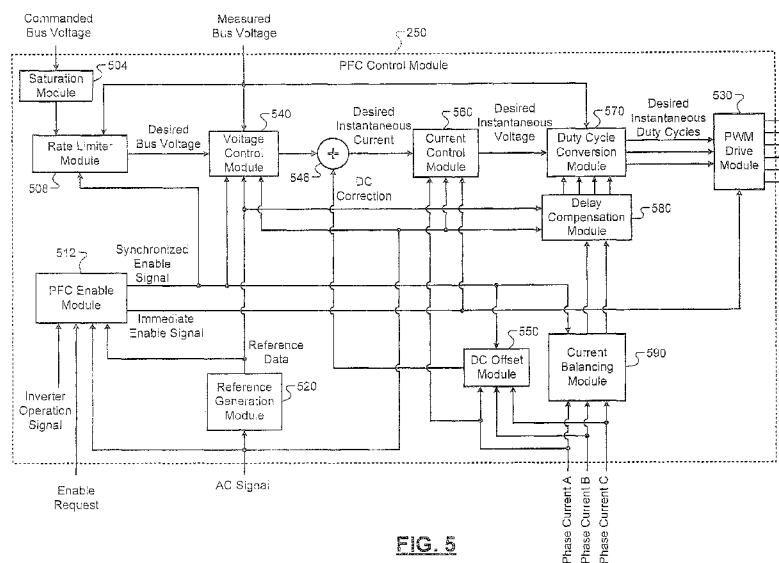


FIG. 5

- (S7) Abstract:** A power factor correction (PFC) system includes a direct current (DC) module, an error control module, an offset module, and a duty cycle control module. The DC module determines an average current value based on a plurality of current values over at least one cycle of an input alternating current (AC) line signal of the PFC system. The error control module generates an error signal based on the average current value. The offset module offsets a desired instantaneous current based on the error signal. The duty cycle control module controls at least one duty cycle of switches of the PFC system based on the offset desired instantaneous current.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/045032**A. CLASSIFICATION OF SUBJECT MATTER****H02M 1/42(2007.01)i, H02M 3/155(2006.01)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 1/42; H02M 7/217; H02M 3/335; H02H 3/08; H02H 7/20; G05F 1/56; G05F 1/44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: average current, error, offset, cycle, switch

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 6657877 B2 (KASHIMA; MASATO et al.) 02 December 2003 See the abstract; claims 1-3, 10-12; figures 1, 2, 4.	1-3,9-11,17-20 4-8,12-16
A	US 6181120 B1 (HAWKES; CHARLES E. et al.) 30 January 2001 See the abstract; claim 1; figure 3.	1-20
A	US 6366070 B1 (COOKE; PHILIP R. et al.) 02 April 2002 See the abstract; claim 1; figures 1-2.	1-20
A	US 4866588 A (RENE; RAYMOND) 12 September 1989 See the abstract; claim 1; figures 1-2.	1-20
A	US 4428016 A (BRASFIELD; ROBERT G.) 24 January 1984 See the abstract; claim 1; figure 4.	1-20



Further documents are listed in the continuation of Box C.



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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/US2010/045032

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 6181120 B1	30.01.2001	None	
US 6366070 B1	02.04.2002	None	
US 4866588 A	12.09.1989	JP 06097841 B2 JP 2250662 A	30.11.1994 08.10.1990
US 4428016 A	24.01.1984	None	