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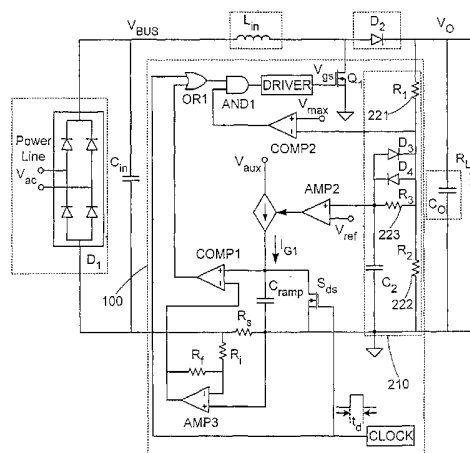
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(54) Title: METHOD AND APPARATUS FOR ACTIVE POWER FACTOR CORRECTION WITH MINIMUM INPUT CURRENT DISTORTION



(57) Abstract: A method for reducing the harmonics contents of an input current drawn from a power line into an electrical system without sensing an input voltage, the method comprising providing an active power factor correction controller with a switch module having a main switch and a timing device, wherein the main switch has an on-time correlated with an on-duty cycle duration, and an off-time correlated with an off-duty cycle duration, and maintaining a linear relationship between the off-duty cycle duration and the input current by using the timing device; and an apparatus for active power factor correction with minimum input current distortion, comprising an active power factor correction assembly that includes a main switch and a timing device, wherein the main switch has associated therewith an on-time correlated with an on-duty cycle duration, and an off-time correlated with an off-duty cycle duration, and wherein the timing device generates the mentioned on-time and off-time, and linearization means for maintaining a linear relation between the off-duty cycle duration and the input current.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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 US CL : 363/89

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; 323/207

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	YAAKOV et al. PWM Converters with Resistive Input. PCIM-98. December 1998, pages 1-9, see entire document.	1-5, 7, 14-16, 18, 20-22
A	US 5,134,355 A (HASTINGS) 28 July 1992 (28.07.1992), entire document.	1-20
A	US 5,612,609 A (CHOI) 18 March 1997 (18.03.1997), entire document.	1-20

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
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