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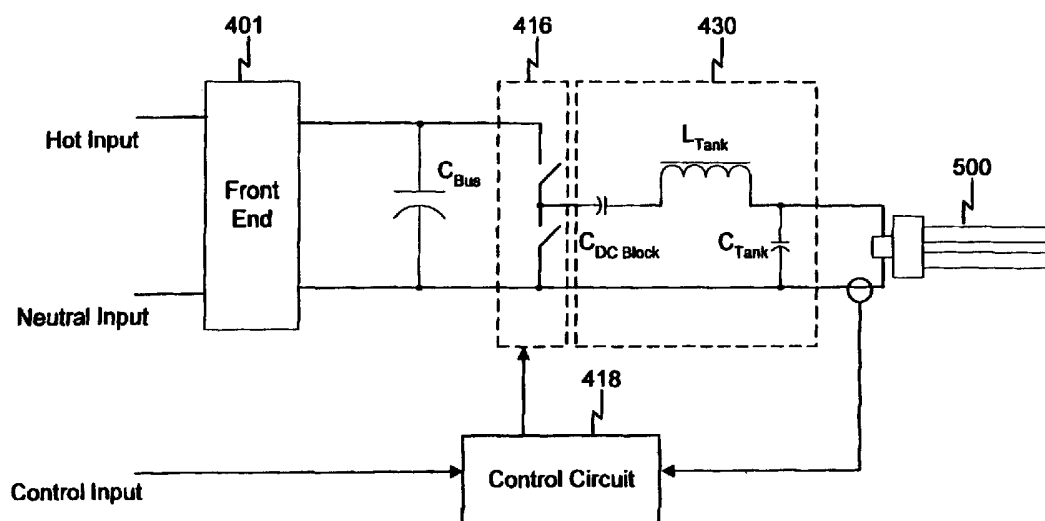
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(54) Title: ELECTRONIC DIMMING BALLAST FOR COMPACT FLUORESCENT LAMPS



(57) Abstract: The operating frequency of a ballast is sufficiently far from resonance of a resonant tank circuit (430) that, when a compact fluorescent lamp (500) is dimmed to about one percent light output level, the ballast is operating with an open loop gain below a predetermined level, and is operating with an output impedance greater than a predetermined and more preferably, greater than twice the absolute value of the maximum negative incremental impedance of the lamp. By changing the frequency to 85 kHz from 80 kHz through control circuit (418), for example, the gain is maintained about the same whether the light output is at five percent or one percent, for example.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : H05B 37/02
 US CL : 315/224,244, DIG4, DIG5
 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. : 315/224,244, DIG4, DIG5

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)
 EAST, INVERTER, RESONAN§2, OPEN, LOOP, GAIN

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,864,212 A (SULLIVAN) 26 JANUARY 1999, SEE WHOLE DOCUMENT.	1-18

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "B" earlier document published on or after the international filing date "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) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"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 "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 "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 "&" document member of the same patent family
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