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(54) **Title:** DETERMINE A SETTING OF A TRIAC DIMMER THROUGH INDUCED RELAXATION OSCILLATION

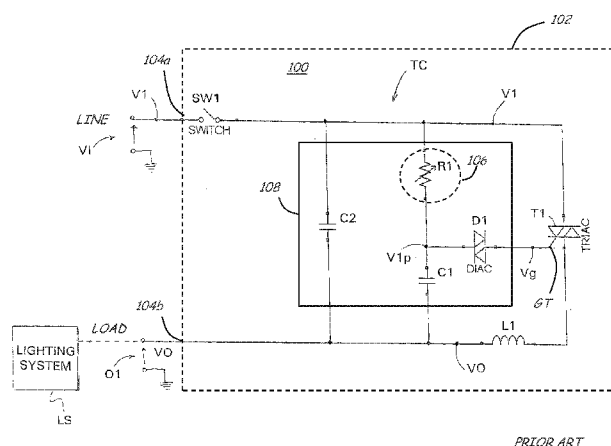


FIG. 1

(57) **Abstract:** A system for controlling power delivered to a lighting system for controlling illumination. The system includes a TRIAC with an input capacitor connected in parallel to a phase delay circuit including a series combination of a potentiometer and a capacitor. A ramp voltage output from the timing circuit is connected through a DIAC to a gate input of the TRIAC. The TRIAC is connected between a DC voltage source and an electrical load. In response to the DC source, the input power storage capacitor, the phase delay timing circuit and the input terminal of the TRIAC have a direct current output voltage higher than a DIAC breakover voltage, used to drive a gate input of the TRIAC. The TRIAC operates in relaxation oscillation mode such that a frequency of oscillation of the TRIAC circuit, as controlled by the timing resistor, can be used to control power to the electrical load.

A. CLASSIFICATION OF SUBJECT MATTER**H05B 41/38(2006.01)i, H05B 37/02(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)

H05B 41/38; G05F 1/00; H05B 33/08; G05F 1/40; H01J 7/44

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: (dim*,dimmer*,TRIAC)+(oscillat*,(relaxation* N/2

oscillation*),(initiat*,operat*,activat*,actuat*) N/3 (TRIAC,oscillation*))+ (voltage*,DC, threshold*, user*,user-adjustable*)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2011-016720 A1 (ELDOLAB HOLDING B.V. et al.) 10 February 2011 See column 12, line 16 - column 13, line 15 and figure 3	1-19
A	US 7791326 B2 (DAHLMAN MARK COBB et al.) 07 September 2010 See abstract and claims 1-18	1-19
A	US 7271550 B2 (JAMES ROBERT VANDERZON) 18 September 2007 See column 2, lines 10-44, column 8, lines 45-54, and figure 4	1-19
A	US 7358679 B2 (IHOR A. LYS et al.) 15 April 2008 See column 15, lines 31-48 and figure 5	1-19



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

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