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**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: ELECTRONIC DRIVER FOR A LIGHT SOURCE

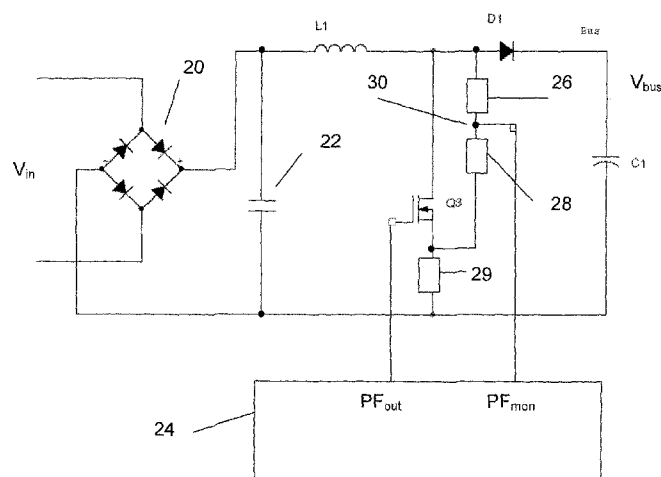


Fig. 2

(57) **Abstract:** An electronic driver for a lightsource comprising a power factor correction working in critical conduction mode. The circuit includes an inductor L1, a diode D1, a switch Q3 and a controller 24. An input voltage  $V_{in}$  is applied to the inductor L1 which is cyclically discharged through the diode D1 by the operation of the switch Q3. The switch Q3 is controlled by the controller 24 which varies the on period of the switch Q3 during which the inductor is charged, for adjusting the output voltage  $V_{bus}$  towards a target value  $V_{bus\ target}$ . The controller 24 receives, and is responsive to, an indication of the inductor L1 reaching a discharged state when the switch is in an off state. The controller 24 adjusts the target voltage value  $V_{bus\ target}$  in dependence upon an indication of the ratio of the off period of the switch to the on period of the switch. The target voltage  $V_{bus\ target}$  is increased in response to an increase in the input voltage  $V_{in}$  that might otherwise cause instability, so that the input voltage at which instability occurred is increased.



— *of inventorship (Rule 4.17(iv))*

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2012/057722

## A. CLASSIFICATION OF SUBJECT MATTER

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ADD.

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

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	US 6 469 917 B1 (BEN-YAAKOV SHMUEL [IL]) 22 October 2002 (2002-10-22) figures 19-23, 26 paragraph [0093]	1-15
X	EP 0 582 813 A2 (IBM [US]) 16 February 1994 (1994-02-16) paragraphs [0036] - [0038]; figures 2, 9, 10	1-15
X	US 2004/012347 A1 (RIBARICH THOMAS J [US]) 22 January 2004 (2004-01-22) figures 9-13	1-15
X	US 2008/018261 A1 (KASTNER MARK A [US]) 24 January 2008 (2008-01-24) figures 1-9	1-15
	-/-	



Further documents are listed in the continuation of Box C.



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/084585 A2 (INT RECTIFIER CORP [US]; RIBARICH THOMAS J [US]; CONTENTI CECILIA [US]) 30 September 2004 (2004-09-30) figure 2 -----	1-15

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