

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 August 2002 (29.08.2002)

PCT

(10) International Publication Number
WO 2002/067634 A3

(51) International Patent Classification⁷: **H05B 41/00**

AA Eindhoven (NL). **HABRAKEN, Antonius, H., P., J.**;
Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(21) International Application Number:

PCT/IB2002/000348

(74) **Agent: BOSMA, Rudolphus, H., A.**; Internationaal Oc-
trooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eind-
hoven (NL).

(22) International Filing Date: 1 February 2002 (01.02.2002)

(25) Filing Language:

English

(81) **Designated States (national):** CN, JP.

(26) Publication Language:

English

(84) **Designated States (regional):** European patent (AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE, TR).

(30) Priority Data:

01200617.7

21 February 2001 (21.02.2001) EP

Published:

— with international search report

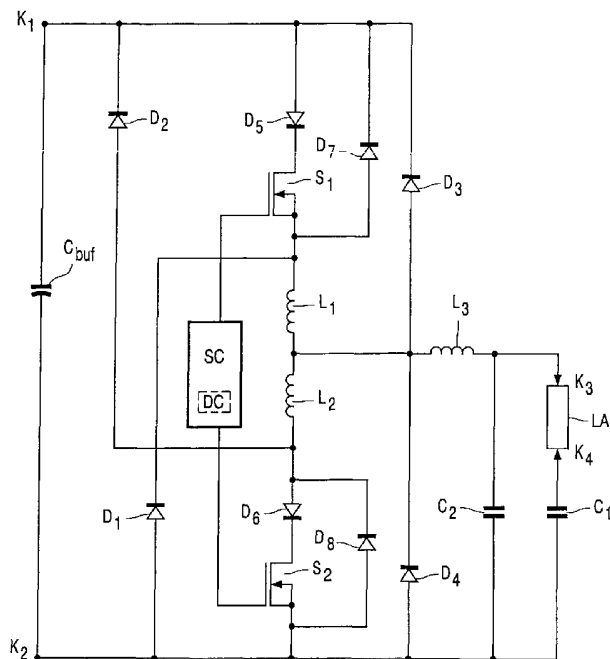
(71) **Applicant: KONINKLIJKE PHILIPS ELECTRON-
ICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA
Eindhoven (NL).

(88) **Date of publication of the international search report:**
3 February 2005

(72) **Inventors: LANGESLAG, Wilhelmus, H., M.**; Prof.
Holstlaan 6, NL-5656 AA Eindhoven (NL). **BUIJ, Arnold,
W.**; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
HENDRIX, Machiel, A., M.; Prof. Holstlaan 6, NL-5656

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) **Title: BALLAST CIRCUIT ARRANGEMENT**



(57) **Abstract:** In an inverter for operating a lamp by means of an AC current comprising two switching elements, the effect of hard switching is counteracted by means of a snubber comprising two inductive elements and at least two diodes.

INTERNATIONAL SEARCH REPORT

PCT/IB 02/00348

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05B41/292

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)
IPC 7 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 practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 02020 A (KONINKL PHILIPS ELECTRONICS NV ;PHILIPS SVENSKA AB (SE)) 14 January 1999 (1999-01-14) cited in the application page 4, line 16 -page 5, line 18; figure 2 -----	1-6



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but 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.

G document member of the same patent family

Date of the actual completion of the international search

25 April 2002

Date of mailing of the international search report

07/05/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Villafuerte Abrego

INTERNATIONAL SEARCH REPORT

PCT/IB 02/00348

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9902020	A	14-01-1999	CN 1237322 T	01-12-1999
			EP 0929996 A1	21-07-1999
			WO 9902020 A1	14-01-1999
			JP 2000517471 T	26-12-2000
			TW 381804 Y	01-02-2000
			US 6005353 A	21-12-1999