

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H05B 39/04, H02H 7/00		A3	(11) International Publication Number: WO 00/28792
		(43) International Publication Date: 18 May 2000 (18.05.00)	
(21) International Application Number: PCT/IL99/00597 (22) International Filing Date: 7 November 1999 (07.11.99) (30) Priority Data: 126967 9 November 1998 (09.11.98) IL (71) Applicant (for all designated States except US): LIGHTTECH ELECTRONICS INDUSTRIES LTD. [IL/IL]; 10, Hachsharat HaYishuv St., 75652 Rishon LeZion (IL). (72) Inventors; and (75) Inventors/Applicants (for US only): BARAK, Shaul [IL/IL]; Habiluim St. 28, 52297 Ramat Gan (IL). DOROSHEV, Victor [IL/IL]; Mivza Yonatan 7/6, 72504 Ramla (IL). (74) Agent: REINHOLD COHN AND PARTNERS; P.O.Box 4060, 61040 Tel Aviv (IL).			(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> (88) Date of publication of the international search report: 17 August 2000 (17.08.00)
(54) Title: ELECTRONIC TRANSFORMER FOR LIGHTING			

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IL 99/00597

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H05B39/04 H02H7/00

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 H02H

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 647 084 A (PATRA PATENT TREUHAND) 5 April 1995 (1995-04-05) page 7, line 5 -page 7, line 50; figure 3 ---	1-3,7
X	EP 0 800 334 A (PATRA PATENT TREUHAND) 8 October 1997 (1997-10-08) the whole document ---	4-6
X	EP 0 466 031 A (ZUMTOBEL AG) 15 January 1992 (1992-01-15) column 7, line 21 -column 8, line 16; figures 1,3-5 ---	4-6
X	EP 0 264 765 A (PATRA PATENT TREUHAND) 27 April 1988 (1988-04-27) column 2, line 54 -column 3, line 4 column 4, line 30 -column 4, line 45; figure 1 ---	8,9
A	---	10,11
	--- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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 "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
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Date of the actual completion of the international search

10 May 2000

Date of mailing of the international search report

24.05.2000

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IL 99/00597

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 331 157 A (BEME ELECTRONIC GMBH ;BK ELECTRONIC GMBH (DE)) 6 September 1989 (1989-09-06) column 5, line 12 -column 8, line 26; figures 1-3 ---	4-6,8-11
A	DE 195 00 615 A (TRIDONIC BAUELEMENTE GMBH) 18 July 1996 (1996-07-18) column 4, line 66 -column 5, line 10; figure 2 ---	10
A	DE 44 18 886 A (PATRA PATENT TREUHAND) 7 December 1995 (1995-12-07) figure 1 ---	8-13
A	US 5 103 139 A (NILSSEN OLE K) 7 April 1992 (1992-04-07) column 1, line 62 -column 2, line 4 figures 1,2 -----	13

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL 99/00597

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-3,7

An electronic transformer comprising:

- an inverter
- an output transformer
- a drive transformer
- a protection mechanism connected to a winding of said output transformer and to a winding of said drive transformer for accurately shutting down said inverter when a short-circuit occurs (first problem: see page 1, lines 13-18).

2. Claims: 4-6

An electronic transformer comprising a protection mechanism responsive to an excess temperature for protecting the electronic transformer against over-temperature (second problem: see page 2, lines 1-9)

3. Claims: 8,9

An electronic transformer comprising:

- an inverter
- a starting circuit for triggering said inverter (third problem: see page 2, lines 10-25).

4. Claims: 10,11

An electronic transformer comprising a capacitor across the output of an input rectifier for filtering radio frequencies (fourth problem: see page 2, line 26 - page 3, line 5)

5. Claims: 12,13

An electronic transformer comprising:

- an inverter
- means for preventing the oscillations of said inverter to stop, when the input current crosses 0volt(fifth problem:see page 3,lines 6-13)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL 99/00597

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