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Case Number: T 131 / 82

DECISION
of the Technical Board of Appeal 3.4.1
of 3 February 1983

Appellant: DATAPOWER, INC.
3328 W. 1st Street
Santa Ana, CA 92703
United States of America

Representative: C. Jones et al
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Decision under appeal: Decision of Examining Division 062 of the European Patent
Office dated 26 March 1982 refusing European patent
application No 79 900 097.1 pursuant to Article 97(1)
EPC

Composition of the Board:

Chairman: R. Kaiser

Member: O. Huber

Member: P. Ford

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I. Summary of Facts and Submissions

- On 28 December 1978, the appellant filed International Application No. PCT/US 78/00254, entitled "Variable Intensity Control Apparatus for Operating a Gas Discharge Lamp", under the Patent Cooperation Treaty in the United States of America, claiming priorities from applications for US national patents, filed on 28 December 1977, 7 September 1978, 11 December 1978 and 27 December 1978 and designating six states for a European Patent. On 26 July 1979 the application was published (publication No. WO 79/00449).

The European application No. 79 900 097.1 was refused by decision of the Examining Division 062 of the European Patent Office, dated 26 March 1982, on the basis of the claims 1 - 26, filed on 5 November 1981. The grounds for refusal were that the use of a current interrupting system for controlling the intensity of a gas discharge lamp as known from US-A-3 486 070 in a circuit for energising a gas discharge lamp according to US-A-3 906 302, functioning in its normal way, lacks an inventive step.

- On 24 May 1982 the appellant lodged an appeal against the decision by telex. A document reproducing the contents of the telex was filed on 28 May 1982. The appeal fee was paid in due time. A Statement of Grounds of Appeal, a new set of claims, new pages 2 to 4a of the description, a schedule of amendments to the description and the documents for two divisional applications were submitted on 12 July 1982.

The present claim 1, the characterising portion of which was divided by the Board in parts (a) and (b), reads as follows:

"A circuit for energising a gas discharge lamp having electromagnetic means (17) for storing magnetic energy connected in parallel combination with the electrodes of the gas discharge lamp (11), switch means (14) for connecting a power supply (16) to the parallel combination (11,17) and control means (15,20,18) responsive to the current flowing through said parallel combination (11,17) for controlling the switch means (14) so that current from the source (16) flows in one direction through the lamp (11) when the switch means (14) is on and flows from the electromagnetic means (17) in the opposite direction through the lamp (11) when the switch means (14) is off, characterised in that (a) the control means (15,20,18) is constructed to actuate the switch means (14) to interrupt the connection of the power supply (16) to the parallel combination (11,17) for a predetermined length of time ($T_A - T_O$) whenever the current (Fig. 3C) flowing from the power supply (16) to the parallel combination has increased to a predetermined value, the current flow through the lamp (11) thereby being reversed for said predetermined length of time, and in that (b) the control means includes means (23) for varying said predetermined current value for varying the intensity of the light from the lamp (11)."

3. The appellant has requested

- that the decision under appeal be set aside,
- and that a European patent be granted on the application preferably in its present form, or, in the alternative, with such amendments as the Board of Appeal may allow,

- and that the filing of two divisional applications be permitted (main request),
- in the event that the Board of Appeal should decide the present claim 1 is not allowable, that a patent be granted on the basis of the main claim of the first divisional application and that the filing of the second divisional application be permitted (auxiliary request).

II. Reasons for the Decision

1. The appeal complies with Articles 106 - 108 and Rule 64 EPC. It is therefore admissible.
2. The effective claim 1 is a combination of claims 1 and 2 filed on 5 November 1981 which were effective at the time of refusal, with a minor clarifying insertion in the first part ("responsive to the current flowing through said parallel combination (11,17)").
3. There can be no objection to the present combination of claims on formal grounds, since it is adequately supported by the original documents.
- 4.1 The preamble of claim 1 is based on the prior art as disclosed in Figure 1 of US-A-3 906 302, cf. the parallel combination of the gas discharge lamp 3 with electromagnetic means (8) for storing magnetic energy, the switch means (4) for connecting a power supply (1,2) to the parallel combination (3,8) and the control means (5,11) for controlling the switch means (4) responsive to the current flowing through said parallel combinations (3,8). The directions of the currents flowing

through the lamp are identical with those of the claimed circuit.

It is clear that the control means (5,11) also actuates the switch means (4) in order to interrupt the power supply to the parallel combination (3,8) for a predetermined period of time whenever the current (I_p) flowing through the parallel combination (3,8) has increased to a predetermined value ((I_p) proportional to the voltage drop across the resistor (5)). The purpose of this known circuit is to avoid cataphoresis of the lamp electrodes if direct current flows through the lamp, see the Abstract and column 2, lines 5-9 and lines 53-57 in US-A-3 906 302. It is also an object of the present application to make use of the advantages of an alternately reversing current provided by a circuit according to feature (a), see page 3, lines 7-13 and page 28, lines 14-20 of the description. Therefore, contrary to the opinion of the Examining Division, claim 1 effective at the time of refusal of the application already lacked novelty.

The subject-matter of this claim was not adapted to solve the main problem, namely the variation of the light intensity of the lamp: cf. paragraph 4.2, below.

Only feature (b) serves this purpose. In US-A-3 906 302 it is not mentioned whether the control means includes means for varying the lamp current on which the light intensity depends. No means for varying the current through the lamp (feature (b)) is disclosed in US-A-3 486 070. It is true, that this known circuit for energising a gas discharge lamp comprises a switch (12) controlled by the voltage drop across the resistor (16) "driven to open position by maximum current and timed to

close after a set period has elapsed". However, this means keeps the power to the lamp substantially constant, see column 1, lines 69-72, column 3, lines 14-16 and column 4, lines 13-15. This known circuit also differs from the claimed one in that the lamp is in series with the electromagnetic means (inductor 14) so that the current through the lamp is unidirectional, thereby leading to unequal electrode wear.

Thus, the subject-matter of the application, as set out in claim 1, is new in comparison with the prior art cited by the Examining Division.

- 4.2 It is a disadvantage of the control circuit described in US-A-3 906 302, that it does not provide for varying the light intensity of the lamp: see the description on page 1, lines 26-29 and on page 3, lines 14-15. The main problem to be solved by the teaching according to claim 1, is obviously to remedy this deficiency of the control circuit according to US-A-3 906 302. This is achieved only by the characterising feature (b).
- 4.3 The first instance has not examined whether the circuit according to the new claim 1, filed on 12 July 1982, has an inventive step. Therefore, the case must be remitted to the Examining Division (Article 111(1) EPC) as the appellant has already suggested in the Statement of Grounds of the Appeal, see page 2, lines 21-26. The Examining Division will also have to state whether, according to the result of the examination, the filing of one or more divisional applications will be justified (Rule 25(1) EPC).

III. Order

For these reasons,

it is decided that:

1. The decision of the Examining Division of the European Patent Office dated 26 March 1982 is set aside.
2. The case is remitted to the first instance for further substantive examination on the basis of the claims filed on 12 July 1982.

The Registrar:

The Chairman: