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Datasheet for the decision of 6 August 2019

Case Number: T 1159/14 - 3.5.02

Application Number: 08164248.0

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Language of the proceedings: EN

Title of invention:
Electronic connection device for a lamp

Patent Proprietor:
Helvar Oy Ab

Opponent:
Tridonic GmbH & Co KG

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
Amendments - allowable (no)

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Case Number: T 1159/14 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 6 August 2019

Appellant: (Opponent)	Tridonic GmbH & Co KG Färbergasse 15 6851 Dornbirn (AT)
Representative:	Kistner, Thomas Mitscherlich PartmbB Patent- und Rechtsanwälte Sonnenstraße 33 80331 München (DE)
Respondent: (Patent Proprietor)	Helvar Oy Ab Yrittäjäntie 23 03600 Karkkila (FI)
Representative:	Berggren Oy, Helsinki & Oulu P.O. Box 16 Eteläinen Rautatiekatu 10A 00101 Helsinki (FI)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 16 May 2014 concerning maintenance of the European Patent No. 2046099 in amended form.**

Composition of the Board:

Chairman	R. Lord
Members:	H. Bronold
	R. Cramer

Summary of Facts and Submissions

I. The appeal of the opponent lies from the interlocutory decision of the opposition division concerning the maintenance of European patent No. 2 046 099 in amended form according to the then first auxiliary request.

II. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

III. The respondent (patent proprietor) requested that the appeal be dismissed.

IV. In a communication under Article 15(1) RPBA the board informed the parties that it tended to agree with the opponent that the terms "bus voltage node", "ground voltage node", "connection node", "first current path", and "second current path" in claim 1 contravened Article 123(2) EPC.

V. With letter dated 19 June 2019, the respondent argued inter alia that nodes were general theoretical concepts relating to the applied voltage such that also a whole connection line could be regarded as a node. Thus, the amendments introducing the terms "bus voltage node", "ground voltage node", "connection node", did not contravene Article 123(2) EPC. Moreover, current paths were implicit for the person skilled in the art knowing half-bridge type ballasts.

VI. In a further letter dated 9 July 2019, the respondent advised the board that they did not intend to attend the oral proceedings scheduled for 6 August 2019.

VII. Oral proceedings before the board were held on 6 August 2019 in the absence of the respondent.

VIII. Claim 1 according to the (sole) request underlying the contested decision reads as follows:

"An electronic connection device (102) for providing an ignition voltage for a fluorescent lamp (100) for activating the generation of illuminating radiation, the electronic connection device (102) comprising:
- a first switching transistor (106) and a second switching transistor (108),
- an ignition capacitor (C1) and a coil (L1) for developing the ignition voltage for the fluorescent lamp, and
- a circuit (IC1) coupled to gate electrodes of said first (106) and second (108) switching transistors;
characterised in that:
- the electronic connection device comprises a first current path from a bus voltage node (Vbus) through the first switching transistor (106), the coil (L1), and the ignition capacitor (C1) and further to a ground voltage node, with a connection node between said coil (L1) and said ignition capacitor (C1) for connecting to said fluorescent lamp,
- the electronic connection device (102) comprises a second current path from said connection node in the opposite direction to the first current path through said coil (L1) and through the second switching transistor (108),
- the electronic connection device (102) comprises integrated therewith a control circuit (104), which is configured to measure electric current through the first switching transistor (106) on the first current

path and through the second switching transistor (108) on the second current path,
- the control circuit (104) is configured to respond to a detection of an excessively high current through each switching transistors by switching off the switching transistor, through which the excessively high current was detected to flow, for a predetermined inactivity period."

IX. The arguments of the appellant, as far as they are relevant for this decision, can be summarised as follows:

None of the terms "bus voltage node", "ground voltage node", "connection node", "first current path", and "second current path" in claim 1 was originally disclosed.

Although page 4, lines 3 to 4 disclosed a current path, the originally disclosed reference symbol "Vbus" was nowhere defined as representing a bus voltage node. It merely represented a certain not further defined voltage applied at the shown position of the circuit.

The expression "ground voltage node" was nowhere originally disclosed. The triangular symbol in figures 2 to 4 was not necessarily to be interpreted as a ground symbol.

The location of the "connection node" between the capacitor C2 and the coil L1 was not unambiguously derivable from the application as filed. A direct connection of the lamp to the connection node was not disclosed.

The "second current path" was also nowhere originally disclosed. The passage of the specification referred to by the respondent only disclosed that the current flowing through the second transistor was measured via resistor R2. Further, numerous features shown in figures 2 to 4 like R3, C1, R4 and C2 were omitted in claim 1. Moreover, it was also not excluded that the current flows through the second transistor via the first current path.

X. The arguments of the respondent, as far as they are relevant for this decision, can be summarised as follows:

The terms "bus voltage node", "ground voltage node", "connection node", "first current path", and "second current path" were originally disclosed. Therefore, claim 1 did not contravene Article 123(2) EPC. In particular, nodes in electric circuits were to be regarded as any point on a circuit, on which a certain voltage was to appear. It was therefore justified to define any point on the circuit represented in figures 2 to 4 of the patent on which the bus voltage appeared as "bus voltage node". The same applied to the "ground voltage node" which was moreover explicitly disclosed by the triangular ground voltage symbol in figures 2 to 4. The "connection node" was even more straightforward merely a conductive connection between two or more components and is to be regarded as just a name. A direct electrical connection of the lamp to the connection device was never claimed. Thus, none of the terms "bus voltage node", "ground voltage node" and "connection node" added anything to the content of the patent.

The "first current path" was originally disclosed in lines 3 to 4 of page 4 of the application as filed. Regarding the "second current path", it was clear for a person skilled in the art that this current path existed in any well known half-bridge type ballast, such as the one according to the patent.

Reasons for the Decision

1. Admissibility of the appeal

The appeal was filed in due time and form and is therefore admissible.

2. Amendments (Article 123(2) EPC)

Claim 1 contravenes Article 123(2) EPC since there is no original disclosure for the terms "bus voltage node", "ground voltage node", "connection node", "first current path" and "second current path" as used in the claim.

With respect to the "nodes" as claimed in the independent claim underlying the interlocutory decision of the opposition division, the board notes that according to figures 2 to 4, merely a reference sign "Vbus" and a symbol representing signal ground is originally disclosed. Regarding the "connection node" there is no original disclosure at all. In contrast to figure 1, which shows a prior art lamp, figures 2 to 4, representing the invention, disclose that it is not the

lamp that is connected to the connection device but capacitor C2.

Further, in the absence of any description of how the two transistors Q1 and Q2 are operated by the integrated circuit (IC1), there is no original disclosure for the first and second current paths. These paths are obviously based on assumptions about the switching states of the respective transistors Q1 and Q2. The passage cited by the respondent on page 4, lines 3 to 4 of the description as originally filed merely discloses an alternative method for measuring the current through the first transistor.

Even assuming that the first and second transistors were operated such that the first and second current paths existed, without the lamp connected, there is no current flow possible in the second current path at all. Moreover, the only plausible basis for the definition of these current paths is the disclosure in Figs. 2 and 3, but these are restricted to two specific arrangements for current measurement, i.e. that using resistors R3 and R4 in Fig. 2 and that using resistor R3 and diodes Q3a and Q3b in Fig. 3. Claim 1 is however not restricted to the disclosed arrangements.

The further arguments of the respondent are based on the assumption that claim 1 is directed to a half-bridge type ballast, that it was immediately apparent for the person skilled in the art, where the current flows in a half-bridge type ballast, and that in electric circuit diagrams, a node is defined by the voltage potential present on a connection line and not by the location of the electric connection.

The board is not convinced by the respondent's further arguments either.

Although it may be true that the person skilled in the art can read from figures 2 to 4 of the patent that the electronic connection device is a half-bridge type ballast, claim 1 is in no way limited to such a half-bridge type ballast. It merely defines a first switching transistor and a second switching transistor, one capacitor and a coil. No details of the topology of the electronic connection device are defined in claim 1 other than the first current path and the second current path.

For the respondent's arguments regarding the common general knowledge about half-bridge type ballasts to be pertinent, the claims would have had to be limited correspondingly. The fact that the respondent argues with reference to technical details which are not present in claim 1 clearly shows that technical features are missing from that claim.

As claim 1 is worded, it defines a "first current path" and a "second current path", for which there is no original disclosure, based on a "bus voltage node", a "ground voltage node" and a "connection node" for which there is also no original disclosure.

Moreover, the further arguments of the respondent even contradict the definition in the claim of the first and second current paths. If for example the ground voltage node were to be interpreted as broadly as indicated in the drawing at the top of page 4 of the respondent's letter of 19 June 2019, i.e. extending from the triangular symbol to just below resistance R4, the first current path would not necessarily make sense,

since such an interpretation would result in three different possible end points regarding the ground voltage node connecting to three different branches of the shown circuit. Similar considerations apply to the second current path.

Thus, even assuming the respondent were right regarding their definition of nodes, this would also not lead to an unambiguous disclosure regarding the first and second current paths.

Consequently, the contested terms as used in claim 1 can not be directly and unambiguously derived from the original disclosure.

The board has therefore arrived at the conclusion that claim 1 contravenes Article 123(2) EPC.

3. Since the sole request of the respondent is not allowable, the board accedes to the request of the appellant.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

U. Bultmann R. Lord

Decision electronically authenticated