Title: DRIVER SYSTEM FOR DRIVING A PLURALITY OF LED'S

Abstract: A driver system for driving a plurality of LED comprises a control module having an input for receiving operating data, and at least one driver module for driving at least one of the LED. The driver module comprising a hysteretical converter for generating a current to power the LED, and a controller electrically connected to the hysteretical converter for controlling the hysteretical converter.
INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2011/05240

A. CLASSIFICATION OF SUBJECT MATTER
INV. H05B33/08
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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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* Special categories of cited documents:

- “X” 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
- “A” 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
- “Y” 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
- “I” 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
- “N” document member of the same patent family

Date of the actual completion of the international search: 14 July 2011
Date of mailing of the international search report: 19/10/2011

Authorized officer
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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).

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 fees, this Authority did not invite payment of additional fees.

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.:

   1–6, 11, 12

Remark on Protest

□ The additional search fees were accompanied by the applicant’s protest and, where applicable, the payment of a protest fee.

□ The additional search fees were accompanied by the applicant’s protest but the applicable protest fee was not paid within the time limit specified in the invitation.

□ No protest accompanied the payment of additional search fees.
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<td>JP 2011508961 A</td>
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This International Search Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6, 11, 12

   A driver system for a plurality of LEDs comprising hysteretical converter including a reference signal generator, a comparator to compare the current flowing through a LED device with the reference signal and to drive a switch based on the result of comparison.

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2. claims: 7, 8

   A driver system for a plurality of LEDs comprising a control module with a control module arranged to calibrate the reference signal generators of at least two driver modules in respect of each other.

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3. claims: 9, 10, 13, 14

   A driver system for a plurality of LEDs comprising a testing switch arranged to test a first driver module using a second driver module.

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4. claim: 15

   A driver system for a plurality of LEDs, wherein a control module comprises an analogue input with a low pass filter and the control module is arranged to determine the connection of a setpoint source based on the decay of an electrical pulse provided onto an analogue input of the control module.

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5. claims: 16, 17

   A driver system for a plurality of LEDs comprising hysteretical converter, wherein a control module is arranged to detect a short circuit or no load condition of the converter.

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