

Title (en)

METHOD FOR OPERATING A CIRCUIT ARRANGEMENT FOR A LIGHT-EMITTING DIODE FIELD FED WITH CONSTANT CURRENT, COMPRISING FAULT DETECTION

Title (de)

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Title (fr)

PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN CIRCUIT POUR UN RÉSEAU DE DIODES ÉLECTROLUMINESCENTES ALIMENTÉES EN COURANT CONSTANT, AVEC DÉTECTION D'ERREURS

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Application

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Abstract (en)

[origin: WO2013124120A1] The present invention relates to a method for operating a circuit arrangement having a power source (I), - having a light-emitting diode field (1, 2, 3) in series to the power source (I), wherein the light-emitting diode field (1, 2, 3) comprises at least two series circuits (1, 2, 3) which comprise at least one light-emitting diode (D1, D2, D3) and a controllable switching element (S1, S2, S3), comprising a control and/or regulation means (C) for the light-emitting diode field (1, 2, 3) and - comprising a voltage sensor (V1), wherein the controllable switching elements and the power source (I) are actuated by the control and/or regulation means (C) in such a way that the control and/or regulation means (C) actuate the closing of the controllable switching element (S1, S2, S3) of at least one series circuit (1, 2, 3) of the light-emitting diode field (1, 2, 3) by a control pulse at the control input of the controllable switching element (S1, S2, S3) during a cycle period (Tcycle) for a pulse duration (T1, T2, T3) determined by the control and/or regulation means (C) and - that the control and/or regulation means (C) actuate the power source (I) shortly before or at the latest simultaneously with the end of a pulse duration (T1, T2, T3) such that the current is reduced, specifically by the amount of current through the series switching (1, 2, 3), the controllable switching element (S1, S2, S3) of which is actuated to open at the end of the pulse duration (T1, T2, T3) by the control and/or regulation means (C). During successive cycle periods (Tcycle), one of each of the controllable switching elements of the series circuits (1, 2, 3) is switched on alone by the control and/or regulation means (C) for a period of time referred to as a diagnosis time (Tdiag).

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