

Title (en)

DEVICE AND METHOD FOR DIRECTLY OPERATING A PLURALITY OF LIGHT-EMITTING DIODES ON A PULSATING DC VOLTAGE

Title (de)

VORRICHTUNG UND VERFAHREN ZUM DIREKTEN BETREIBEN EINER MEHRZAHL VON LEUCHTDIODEN AN EINER PULSIERENDEN GLEICHSPANNUNG

Title (fr)

DISPOSITIF ET PROCÉDÉ POUR FAIRE FONCTIONNER DIRECTEMENT UNE PLURALITÉ DE DIODES ÉLECTROLUMINESCENTES À UNE TENSION CONTINUE PULSÉE

Publication

**EP 3022988 A1 20160525 (DE)**

Application

**EP 14739430 A 20140715**

Priority

- DE 102013107499 A 20130715
- EP 2014065094 W 20140715

Abstract (en)

[origin: WO2015007713A1] The invention relates to a device for directly operating a plurality of light-emitting diodes (LEDs) on a pulsating DC voltage, in particular on a network voltage, comprising LED groups, each of which comprises at least one LED of the plurality of LEDs, using a plurality of current control circuits for actuating a respective LED group, said current control circuits being designed such that in the event of a current value which increases over time, a current flows through the respective LED group dependent on a threshold current specified for the respective LED group. The aim the invention is to improve said device such that the light-emitting diodes can be operated on a pulsating DC voltage with minimal flickering, preferably no flickering. According to the invention, this is achieved in that each current control circuit comprises at least one charge storage device, each of which is paired with an LED group, and the charge storage device is arranged in the current control circuit such that the charge storage device can be charged in the event of a current value which increases over time and can be at least partially discharged by a discharge current drawn via the LED group in the event of a current value which decreases over time. The invention further relates to an improved method for directly operating a plurality of light-emitting diodes (LEDs) on a pulsating DC voltage.

IPC 8 full level

**H05B 44/00** (2022.01)

CPC (source: EP)

**H05B 45/48** (2020.01)

Citation (search report)

See references of WO 2015007713A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**DE 102013107499 A1 20150115**; EP 3022988 A1 20160525; PL 407284 A1 20150119; TW 201510969 A 20150316; WO 2015007713 A1 20150122

DOCDB simple family (application)

**DE 102013107499 A 20130715**; EP 14739430 A 20140715; EP 2014065094 W 20140715; PL 40728414 A 20140221; TW 103124199 A 20140715