

Title (en)

ELECTRONIC BALLAST AND METHOD FOR OPERATING AT LEAST ONE DISCHARGE LAMP

Title (de)

ELEKTRONISCHES VORSCHALTGERÄT UND VERFAHREN ZUM BETREIBEN MINDESTENS EINER ENTLADUNGSLAMPE

Title (fr)

BALLAST ÉLECTRONIQUE ET PROCÉDÉ POUR FAIRE FONCTIONNER AU MOINS UNE LAMPE À DÉCHARGE

Publication

EP 2468078 B1 20160817 (DE)

Application

EP 10776646 A 20101103

Priority

- DE 102009053617 A 20091117
- EP 2010066673 W 20101103

Abstract (en)

[origin: WO2011061053A1] The invention relates to an electronic ballast for operating at least one discharge lamp (La) having an input having a first (E1) and second input connection (E2) for coupling to a DC supply voltage (UZw); an output having a first (A1) and second output connection (A2) for coupling to the at least one discharge lamp (La); a bridge circuit having at least one first (S1) and one second electronic switch (S2), wherein a series connection of the first (S1) and the second electronic switch (S2) is coupled between the first (E1) and the second input connection (E2), forming a first bridge center point (HBM1); a lamp throttle (L1) coupled between the first bridge center point (HBM1) and the first output connection (A1); at least one trapezoidal capacitor (CT) coupled in parallel with one of the electronic switches (S1, S2); a resonance capacitor (CR) coupled in parallel with the first (A1) and second output connection (A2); a control device (12) for actuating at least the first (S1) and the second electronic switch (S2) by means of an actuating signal (AL, AH), wherein the actuating signal (AL, AH) comprises an operating frequency (f) during a preheating phase (Theat) of a first (W1) and a second coil (W2) of at least one discharge lamp (La) connected between the first (A1) and the second output connection (A2), wherein the control device (12) is designed for reducing the operating frequency (f) during an ignition phase (TZ) of the discharge lamp (La); and a heating device (TR, La, Lb1, Lb2, S3, C2) coupled to the control device (12), wherein the heating device (TR, La, Lb1, Lb2, S3, C2) is further coupled to the first bridge center point (HBM1) and is designed for heating the first (W1) and the second coil (W2) of the discharge lamp (La); wherein the control device (12) is designed for activating the heating device (TR, La, Lb1, Lb2, S3, C2) at least during a predetermined period of time of the ignition phase (TZ). The invention further relates to a corresponding method for operating at least one discharge lamp.

IPC 8 full level

H05B 41/295 (2006.01); **H05B 41/392** (2006.01)

CPC (source: EP KR)

H05B 41/295 (2013.01 - EP KR); **H05B 41/392** (2013.01 - KR); **H05B 41/3925** (2013.01 - EP)

Citation (examination)

DE 29514817 U1 19951116 - PATENT TREUHAND GES FUER ELEKTRISCHE GLUEHLAMPEN MBH [DE]

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

DOCDB simple family (publication)

DE 102009053617 A1 20110519; CN 202857113 U 20130403; EP 2468078 A1 20120627; EP 2468078 B1 20160817; KR 20120005923 U 20120822; WO 2011061053 A1 20110526

DOCDB simple family (application)

DE 102009053617 A 20091117; CN 201090001307 U 20101103; EP 10776646 A 20101103; EP 2010066673 W 20101103; KR 20127000035 U 20101103