

Title (en)
STEP-DOWN CONVERTER FOR A LIGHT-EMITTING DIODE

Title (de)
ABWÄRTSWANDLER FÜR EINE LEUCHTDIODE

Title (fr)
CONVERTISSEUR ABAISSEUR POUR UNE DIODE ÉLECTROLUMINESCENTE

Publication
EP 3533291 B1 20210407 (DE)

Application
EP 17780748 A 20171009

Priority
• DE 102016221398 A 20161031
• EP 2017075619 W 20171009

Abstract (en)
[origin: WO2018077599A1] The present invention relates to a step-down converter (101) for a light-emitting diode (110), comprising a first switch (201, 205, 291) and a second switch (202, 206, 292) which is connected in series with the first switch (201, 205, 291) between a supply voltage connection (211) and earth (215). The step-down converter (101) also comprises a storage choke (212) which is connected in series with the first switch (201, 205, 291) between the supply voltage connection (211) and an output connection (213, 219). The step-down converter (101) also comprises the output connection (213, 219) which is designed to output a load current (702) to the light-emitting diode (110) on the basis of a choke current (701) through the storage choke (212). The step-down converter (101) also comprises a controller which is designed to operate the first switch (201, 205, 291) and the second switch (202, 206, 292) in the conductive state alternately and periodically depending on a dimming signal.

IPC 8 full level
H05B 44/00 (2022.01); **H05B 45/37** (2020.01)

CPC (source: AT EP US)
H05B 45/10 (2020.01 - AT); **H05B 45/375** (2020.01 - AT EP US)

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)
WO 2018077599 A1 20180503; AT 17349 U1 20220115; DE 102016221398 A1 20180503; EP 3533291 A1 20190904; EP 3533291 B1 20210407

DOCDB simple family (application)
EP 2017075619 W 20171009; AT 2932016 U 20161129; DE 102016221398 A 20161031; EP 17780748 A 20171009