

Title (en)

DC-AC converter with protection means, for supplying a discharge lamp.

Title (de)

Geschützter Umrichter zur Steuerung einer Entladungslampe.

Title (fr)

Onduleur avec circuit de protection, pour alimenter une lampe à décharge.

Publication

EP 0580255 A1 19940126 (EN)

Application

EP 93202157 A 19930713

Priority

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- EP 92202205 A 19920720

Abstract (en)

The invention relates to a circuit arrangement for igniting and operating a discharge lamp, which arrangement comprises a DC-AC converter provided with comprising at least one switching element (S1,S2) for generating a current with alternating polarity by being conducting and non-conducting with a frequency f and a branch A provided with terminals (1,2) suitable for being connected to a DC voltage source, a load branch B comprising inductive means (L1), capacitive means (C4,C5,C9), and means (L2) for coupling the discharge lamp to the load branch B, a control circuit for rendering the switching element (S1,S2) conducting and non-conducting with the frequency f, comprising a resonant circuit which comprises further inductive means (L2) and further capacitive means (C2). According to the invention, the circuit arrangement is also provided with means for limiting an ignition voltage, which means comprise a branch C coupled to the resonant circuit and comprising a series arrangement of a frequency-dependent impedance (L7) and a semiconductor element (T) provided with a control electrode for influencing the impedance of the semiconductor element in dependence on a potential at the control electrode, a branch D coupled to the load branch and to the control electrode of the semiconductor element for influencing the potential of the control electrode in dependence on the voltage across the discharge lamp. An effective limitation of voltages and currents in the circuit arrangement during ignition of the discharge lamp is realised thereby. <IMAGE>

IPC 1-7

H05B 41/29

IPC 8 full level

H05B 41/285 (2006.01)

CPC (source: EP)

H05B 41/2856 (2013.01)

Citation (search report)

- [A] EP 0189221 A1 19860730 - PHILIPS NV [NL]
- [A] US 4992702 A 19910212 - SHIMIZU KEIICHI [JP], et al
- [A] EP 0340049 A1 19891102 - APPLIC ET UTILISATIONS DES PRO [FR]
- [AD] EP 0442572 A1 19910821 - PHILIPS NV [NL]

Cited by

EP0781077A3; FR2779288A1

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