

Title (en)
Fluorescent lamp power supply and control circuit for wide range operation

Title (de)
Vorschaltgerät mit grossen Wirkungsbereich für Leuchtstofflampen

Title (fr)
Alimentation pour tube fluorescent et circuit de contrôle à grande plage de variation

Publication
EP 0673184 B1 20041027 (EN)

Application
EP 95103762 A 19950315

Priority
US 21386594 A 19940316

Abstract (en)
[origin: EP0673184A2] A power supply and control circuit is provided for driving a fluorescent lamp from a low voltage DC power source such as a battery. A DC-to-AC inverter coupled to a switching regulator converts low DC voltage into a higher AC voltage for driving the fluorescent lamp. In one embodiment, the lamp is included in a feedback loop which includes a circuit for producing a feedback signal indicative of the magnitude of current conducted by the lamp. In another embodiment, the lamp is symmetrically driven by isolating the lamp from the driving circuitry and indirectly deriving the feedback signal. The feedback signal is applied to the switching regulator to produce in the lamp a regulated current and, hence, a regulated lamp intensity. The magnitude of the lamp current can be adjusted to enable the intensity of the fluorescent lamp to be smoothly and continuously varied (without "dead-spots" or "pop-on") over a chosen intensity range, including if desired, from substantially full OFF to full ON. When the lamp is symmetrically driven, the lamp is illuminated in a more uniform manner along the entire length of the tube. A method for driving a fluorescent lamp from a low voltage DC power source is also provided. <IMAGE>

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CPC (source: EP)
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Cited by
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