

Title (en)
METHOD AND CIRCUIT FOR HEATING, STARTING AND DRIVING OR CONTROLLING THE LIGHT CURRENT OF LOW PRESSURE GAS DISCHARGE LAMPS

Publication
EP 0056642 B1 19871202 (DE)

Application
EP 82100310 A 19820118

Priority
DE 3101568 A 19810120

Abstract (en)
[origin: US4398128A] Method for heating and igniting as well as controlling or regulating the light flux of low-pressure gas-discharge lamps, including a ballast having an inverter for generating an ac voltage at inverter output terminals from a dc voltage generated from an ac supply network by rectifiers, the ac voltage having a frequency higher than line frequency, the ballast including an L-C circuit having a capacitor and a first choke connected between one of the inverter output terminals and a lamp, the lamp being in turn connected to another of the inverter output terminals, a second choke shunted across the lamp, the charge of the capacitor being constantly reversed by the inverter with controllable frequency, which comprises changing the inverter frequency in accordance with the desired light flux with constant ac voltage amplitude at the outputs of the inverter, tuning the frequency, voltage, capacitor, first choke and second choke to each other, circulating substantially the required heating current through heating coils of the lamp at low frequency before the lamp is ignited, decreasing the heating current at rising frequency until substantially 40% of the rated light flux of the lamp is reached after the lamp is ignited, and decreasing the heating current to less than 25% of its initial value as the frequency continues to rise until the rated light flux of the lamp is reached, and an apparatus for carrying out the method.

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IPC 8 full level
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CPC (source: EP US)
H05B 41/2981 (2013.01 - EP US); **Y10S 315/02** (2013.01 - EP US)

Cited by
EP0279073A3; GB2147162A; GB2163015A; EP0126556A1; EP0092654A3; WO8700719A1; WO0002423A3; WO8504769A1

Designated contracting state (EPC)
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