Electronic Ballast

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Abstract

An electronic ballast circuit can be used with an electric discharge lamp to obtain the necessary circuit conditions (voltage, current and waveform) for starting and operation. All fluorescent light sources require ballast for proper operation. The circuit interacts with the lighting mechanism itself to control, regulate and, ultimately, stabilize the light output of the lamp. Design of the circuit includes rectifier circuit, high frequency voltage converter circuit, and half bridge resonant output circuits. The circuit utilize transistors, diodes, capacitors, inductors, and resistors. It is cheap, very stable and to extend the lifetime of a fluorescent lamp.

Key words: Ballast, circuit components, circuit operation.

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