

Abstract

ELECTRONIC BALLAST

An electronic ballast for driving a gas discharge lamp includes a rectifier, a valley-fill circuit, and inverter having first and second series-connected controllably conductive device having complementary duty cycles, a control circuit for controlling the controllably conductive device, and an independent cat ear power supply to provide power to the ballast control circuits. The result is a ballast having substantially improved THD, and current crest factor. In a preferred embodiment, the valley-fill circuit includes an energy storage device that stores energy in response to a controllably conductive device. In an especially preferred embodiment, the controllably conductive device of the valley-fill circuit is also one of the controllably conductive devices of the inverter.

Fig. 9



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