

ABSTRACT

ENERGY SAVING CIRCUIT FOR ELECTRONIC BALLASTS

The invention describes an energy saving circuit for operating electronic ballasts commonly classified as the non-constant output type or non-regulated output type for dimming fluorescent lamps, connected electrically between a power supply and the electronic ballast of the fluorescent lamp, comprising a step-down voltage transformer, bridge rectifier circuits and switches which is operated manually or controlled by a microcontroller or microprocessor. A second embodiment comprises a rectifier, a buck converter for stepping down the voltage, the converter being operated at a high frequency by a microcontroller. In both the embodiments, a Passive Infrared Detector connected to the microcontroller detects the presence of a person and is used to override the embedded lighting schedule.

Figure 1