

Title (en)

DIMMABLE ELECTRONIC BALLAST WITH SINGLE STAGE FEEDBACK INVERTER

Title (de)

DIMMBARES VORSCHALTGERÄT MIT EINSTUFIGER RÜCKKOPPELUNG

Title (fr)

BALLAST ELECTRONIQUE POUR INTENSITE VARIABLE COMPORTANT UN SEUL ETAGE DE CONVERTISSEUR A REACTION

Publication

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Application

EP 99965515 A 19991217

Priority

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Abstract (en)

[origin: WO0040058A1] A high frequency dimmable electronic ballast comprising a single stage feedback inverter and power factor controller which regulates the power delivered to a load by the inverter at low dim levels such that sufficient lamp crest factor is maintained for load changes from 100 % to 10 %. Sufficient load current crest factors are obtained for variable load (dimming) by operating the ballast in a closed loop configuration, whereby the average value of the load current and/or power is measured and regulated. In one aspect of the present invention, an electronic ballast comprises a single stage feedback inverter for supplying high frequency power to a load in response to driving signals; current sensing means for sensing current flowing in the load due to the supplied load power; voltage detection means for detecting a peak voltage of said load due to the supplied load power; dimming means for generating an illumination signal corresponding to a desired power level of the load; and a controller connected to the single stage feedback inverter and dimming means, for generating the driving signals to cause the inverter to generate the desired power level to the load, whereby the controller processes the sensed load current and the detected peak load voltage to maintain a sufficient lamp crest factor at the desired load power level.

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