

PV FED INTEGRATED DOUBLE BUCK-BOOST LED DRIVER

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ABSTRACT

The Proposed Integrated double buck boost converter features two capacitors, two inductors with only one controlled switch. It is able to supply a solid-state lamp from the dc mains fed with PV panel. The converter mean time between failures can be increased with the cautious design of the converter by selecting the film capacitors. The designed Integrated double buck–boost (IDBB) converter will power the LED lamps with the renewable source i.e., from the PV cell. The dc mains providing low output LED ripple current. The operation of the converter is similar to the cascaded connection of two buck–boost converters, at which only one controlled switch is shared by the two stages. The proposed driver circuit is designed for 70W and MATLAB/Simulink software is used for implementation.

KEYWORDS: PV Cell, IDBB, LED

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