Abstract

Now a days, small scale solar array and PV module is having low voltage. So to connect them to grid, it is necessary to boost the output voltage higher than 300 V. There are some
Design of Series Connected Forward Fly Back Step up Dc-Dc Converter

technologies available like high voltage boost converter, soft switching converters. But they
have poor reliability due to absence of isolation and low power conversion efficiency. This
paper represent a high step up Dc-Dc converter which has series connected forward converter
and flyback converter using transformer technology to increase the utilization with an advantage
of high system reliability and high power conversion efficiency. In this paper design and
analysis of proposed system are presented along with the performance analysis and simulation.
Also, a 125 W hybrid Dc-DC converter hardware model has implemented for experimental
verification.

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Index Terms

Computer Science

Power Electronics

Keywords

Dc-dc Converters  Forward-flyback Converter  Forward Flyback Transformer.