Abstract

Nowadays, 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
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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.

References

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**Index Terms**

Computer Science
Power Electronics

**Keywords**

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