Abstract

This paper represents a comparative study of isolated resonant topologies for photovoltaic application such as half bridge, full bridge and push pull topology. The performance of these topologies is analyzed with the help of Pulse Width Modulation (PWM) technique. The stressful behavior of the switches is reduced by soft switching technique. So, the primary side switches utilize zero voltage switching (ZVS) and output diodes utilize zero current switching (ZCS). A bidirectional switch is used at the high voltage side to provide voltage regulation over fixed frequency PWM control. Simulation results are performed by using a MATLAB-SIMULINK.
Comparative Analysis of Modified Isolated Resonant Converters for Photovoltaic Application using Bidirectional Switch


Index Terms

Computer Science

Circuits And Systems

Keywords

LLC ZVS ZCS MIC PV PWM