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Grid Connected Photovoltaic Micro Inverter

Authors : S. J. Bindhu, Edwina G. Rodrigues, Jijo Balakrishnan

Abstract : A grid-connected photovoltaic (PV) micro inverter with good performance properties is proposed in this paper. The proposed inverter with a quadrupler, having more efficiency and less voltage stress across the diodes. The stress that come across the diodes that use in the inverter section is considerably low in the proposed converter, also the protection scheme that we provided can eliminate the chances of the error due to fault. The proposed converter is implemented using perturb and observe algorithm so that the fluctuation in the voltage can be reduce and can attain maximum power point. Finally, some simulation and experimental results are also presented to demonstrate the effectiveness of the proposed converter.

Keywords : DC-DC converter, MPPT, quadrupler, PV panel
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