

A Double PWM Source Inverter Technique with Reduced Leakage Current for Application on Standalone Systems

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Abstract : The photovoltaic (PV) panel with no galvanic isolation system is well-known technique in the world which is effective and deliver power with enhanced efficiency. The PV generation presented here is for stand-alone system installed in remote areas when as the resulting power gets connected to electronic load installation instead of being tied to the grid. Though very small, even then transformer-less topology is shown to be with leakage in pico-ampere range. By using PWM technique PWM, leakage current in different situations is shown. The results that are demonstrated in this paper show how the pico-ampere current is reduced to femto-ampere through use of inductors and capacitors of suitable values of inductor and capacitors with the load.

Keywords : photovoltaic (PV) panel, duty cycle, pulse duration modulation (PDM), leakage current

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