Comparative Study of Single Phase Cascaded and Hybrid Multilevel Inverters using Modified APODPWM Method

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Abstract

In this paper, a high frequency switching method of cascaded H-bridge and hybrid multilevel inverter have been proposed for equal power sharing between cells of multilevel inverter and for reducing THD. This switching method has been applied to 9-level inverter fed by PV system operated at Maximum Power Point. Comparative study of the THD reduction in multilevel inverter system with and without switching pattern for cascaded and hybrid multilevel inverter has been carried out to check the effectiveness of the proposed method in reducing the THD and balancing power sharing among different inverter cells.

References


6. Datasheet of a Clearline PV module for 1000 w/m2 and 25°C


**Index Terms**

Computer Science Circuits and Systems

**Keywords**

Cascaded multilevel inverter, Hybrid multilevel inverter, Alternative phase opposite disposition PWM, Multicarrier PWM, Photovoltaic system, MPPT.