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HARMONIC SUPPRESSOR FOR ENHANCING POWER QUALITY IN CASCADED MULTILEVEL INVERTER

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ABSTRACT

Harmonics is a major problem in power systems that have become serious recently owing to the wide use of power electronics related equipment. In this process, there is a possibility of generation of harmonic peaks because majority of the power utilities are non-linear loads. A high performance multilevel inverter should have a clean output voltage with low total harmonic distortion (THD) for both linear and non linear loads. Harmonic distortion is the most important power quality problem occurring in multilevel inverter, the harmonics can be eliminated by an optimal selection of switching angles. The proposed technique is tested with a seven level cascaded H-bridge inverter. The proposed method will be implemented in MATLAB working platform and the harmonic elimination performance will be evaluated.

KEYWORDS: Power Quality, Harmonics, Switching Angles, THD, Multilevel Inverter

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