A New Topology of Capacitor-Clamp Cascade Multilevel Converters

Use of multilevel converter has become popular in recent years. This paper will present a new topology of capacitor-clamp cascade multilevel converter that is derived from two popular topologies. The new concept of the novel capacitor-clamp cascade converter is based on the connection of multiple three-level capacitor-clamp converter modules. Nine level waveform of the proposed multilevel converter is synthesized by adding of each converter output voltage. Sub-harmonic PWM method is employed in the new topology. The proposed converter is also verified by computer simulation using MATLAB-Simulink. Simulation results are also presented in this paper.