

A Hybrid Capacitor-Clamp Cascade Multilevel Converter

Use of multilevel converter has become popular in recent years. This paper presents a new topology of a hybrid capacitor-clamp cascade multilevel converter that is derived from two popular topologies. The new concept of the converter is based on the connection of multiple three-level capacitor-clamp converter modules with different DC bus voltages. With the novel topology consisting of higher voltage modules and lower voltage modules, realization of multilevel converters using a hybrid approach involving higher voltage devices and faster devices operating in synergism is possible. A detailed example of HCCMC is given. The proposed converter is also verified by computer simulation using MATLAB-Simulink. Simulation results are also presented in this paper



