

Method for balancing voltage in a hybrid modular multilevel converter (MMC)

The present invention offers a hybrid modular multilevel converter (MMC) and a method for balancing voltage in the hybrid MMC.

Said method includes performing charging and discharging of one or more capacitors in a first wave shaping circuit during a positive half cycle by operating a plurality of first director switches in combination with the first wave shaping circuit for obtaining a reference voltage.

During positive half cycle, for the same direction of current the capacitor can be charged or discharged based on voltage of capacitors in comparison with the reference voltage by operating set of director switches.

Similarly for a negative half cycle, the, method includes performing charging and discharging of one or more capacitors in a second wave shaping circuit during the negative half cycle by operating a plurality of second director switches in combination with the second wave shaping circuit.

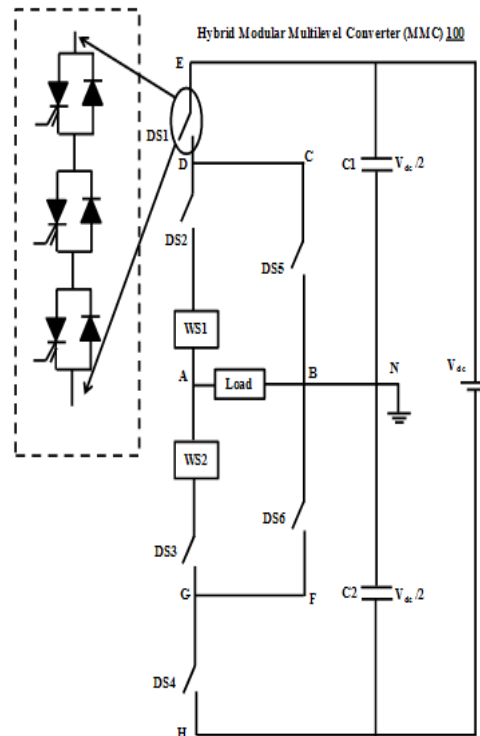


FIG. 1: Hybrid Modular Multilevel Converter