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(57) Abstract :

Title: A Switched Capacitor Based Boost Multilevel Inverter and its Hybridization ABSTRACT A Switched Capacitor Based Boost Multilevel Inverter and Its Hybridization with a flying capacitor 400 comprising: a (n+2) capacitors C1, C2, C3 ... Cn are charged to DC supply voltage by using a series-parallel method with a diode 'D' and a flying capacitor 'Cf' settles at half of the DC supply voltage to satisfy a charge balance theory where the capacitor is discharged when connected in series and charged when connected in parallel to the DC supply voltage 'Vdc' where no additional control is required due to the capacitor's self-voltage balancing ability to balance the capacitor voltage with the capacitor 'Cf' is charged in negative half-cycle and discharged in positive half-cycle of a output voltage waveform; and a 4(n+2) semiconductors/switches with minimum voltage stress and its individual rating is significantly lesser where an output voltage is collected between the terminals 'a' and 'b', wherein the Switched Capacitor Based Boost Multilevel Inverter and Its Hybridization with a flying capacitor provide a voltage boost topology without magnetic components using with low components and high boosting gain with boosting factor (n+2) by incorporating a flying capacitor of constant size for n-levels i.e., No. of levels $4n + 9$. FIG. 4A

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