

عنوان مقاله:

Technologies of Power Electronics –March 3rd and 4th–Sharif University of Technology TPES-1058 New Structures for Multilevel Converter with Reduced Blocked Voltage of Switches and Power Electronic Elements

محل انتشار:

سمینار فناوری های الکترونیک قدرت (سال: 1393)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Naser Vosough - *Department of Computer and Electrical Engineering Tabriz University Tabriz Iran*

Rasoul Shalch Alishah - *Department of Computer and Electrical Engineering Tabriz University Tabriz, Iran*

Seyed Hossein Hossein - *Department of Computer and Electrical Engineering Tabriz University Tabriz, Iran*

خلاصه مقاله:

this paper proposes new multilevel converter structures. Firstly, a new extended multilevel converter topology is presented. Then, a new cascade structure is proposed based on cascaded connection of several extended topologies. The number of generated levels at output voltage waveform of proposed topologies is high. These structures utilize minimum number of switches, gate drivers, dc sources and anti-parallel diodes. Also, these topologies reduce the total standing voltage of switches and cost significantly. To produce all levels (odd and even), two methods for proposed extended and cascade topologies are proposed to determine the values of DC voltage sources of proposed topologies. Comparison results with other topologies are provided to show the merits of proposed topologies. Using MATLAB Software, Simulation results are provided for an extended 15-level and a cascade 25-level converter to verify the analytical results.

کلمات کلیدی:

component; Multilevel Converter, Total Harmonic Distortion, Components Standing Voltage

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/391987>

