

عنوان مقاله:

A new converter with Reduced Switch Count to integrate several renewable energy sources

محل انتشار:

اولین مسابقه کنفرانس بین المللی جامع علوم مهندسی در ایران (سال: 1395)

تعداد صفحات اصل مقاله: 12

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خلاصه مقاله:

In this paper, a 12-switched converter is suggested which consists of a capacitor in one of its legs in order to integrate the three power sources in three-phase AC network. Three power sources can be renewable or distributed generation sources. Compared to structure of conventional back to back AC/DC/AC converter, in the suggested topology the number of switches and their gate drivers are reduced, significantly. The employed control scheme is suited for a 5-legged converter when one of the legs is in fault, which causes to increase the reliability of the system. Control scheme and modulation approach guarantee the fact that the input and output waveforms follow nearly the sinusoidal waveform and power factor of them gets equal to one. The presented simulation results validate the efficiency of proposed control.

کلمات کلیدی:

Four Ports, Six Switches Converter

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