

عنوان مقاله:

A Modified High Voltage Gain Switched-Capacitor-Inductor Active-Switched Boost Inverter

محل انتشار:

مجله مدل‌سازی و شبیه‌سازی در مهندسی برق و الکترونیک، دوره 1، شماره 3 (سال: 1400)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

This article proposes a new controller for a switched-capacitor-inductor-active switched boost inverter (SCL-ASBI). The proposed controller provides a high voltage gain. This controller improves the boost factor without adding extra components to the SCL-ASB inverter. This control method increases the boost factor with a low duty cycle, and paves the way for the soft-switching condition of the switches. The control method has the shoot-through (ST) state to reduce electromagnetic interference (EMI) noises. The boost factor is flexible, owing to utilizing a phase shift in this method. The switching algorithm and theoretical analysis are discussed. The simulation results are presented to confirm the validity of the theoretical analysis and the advantages of the proposed inverter.

کلمات کلیدی:

single-stage inverter, switched-capacitor-inductor, soft switch, Controller, impedance network

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