

عنوان مقاله:

A New Single-Phase Cascade Multilevel Inverter Topology Using Four-Level Cells

محل انتشار:

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نویسندگان:

Mohammad Nilkar - *Technical and vocational university*

Ebrahim Babaei - *Member, IEEE*

Mehran Sabahi

خلاصه مقاله:

This paper proposes a new multilevel inverter with a fewer number of power electronic switching devices and gate drive circuits. In comparison with other classical topologies such as cascade H-bridge and neutral-point-clamped multilevel inverters, the proposed topology can generate more numbers of voltage levels at the output. The proposed inverter consists of cascade connected four-level basic cell inverters and a conventional H-bridge. Less number of the switches leads to the reduction of size and weight, simple gate drive and control strategy, high efficiency, low power consumption and also increases the total reliability of the inverter. The simulation results obtained from PSCAD/EMTDC software confirm the validation of the proposed configuration advantages and its theoretical operation and control method.

کلمات کلیدی:

component; Cascade H-bridge multilevel inverter, styling; multilevel inverter

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