

عنوان مقاله:

A Novel Scheme at Low Modulation Indices for Step Modulation of H-Bridge Multilevel Converters

محل انتشار:

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خلاصه مقاله:

This paper proposes a new multi pattern modulation scheme for H-bridge multilevel converters which is useable for high power converters and FACTS devices. The proposed method eliminates the draw-back of the conventional step modulation, which is a narrow range of modulation indices, and provides a broad range of output voltage with low THD. In this method at low modulation indices, some H-bridge modules are switched two times per cycle and provide negative output voltage. As the modulation index decreases, more H-bridges are involved in this process. It results in elimination of more voltage harmonics and an optimum output filter. Furthermore, in this paper an optimization technique with the aid of Mathmatica Optimization Toolbox is presented to compute the switching angles in a multilevel converter

کلمات کلیدی:

.Multilevel converters, harmonic elimination, H-bridge converters, PWM modulation

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