

DOI: <https://doi.org/10.15407/techned2016.05.014>

FREQUENCY CONVERTER WITH THE REDUCED THD OF THE OUTPUT VOLTAGE

Journal	Tekhnichna elektrodynamika
Publisher	Institute of Electrodynamics National Academy of Science of Ukraine
ISSN	1607-7970 (print), 2218-1903 (online)
Issue	№ 5, 2016 (September/Oktobor)
Pages	14 – 16

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Abstract

The method for a non-linear control of the resonant inverter's output voltage, which allows to create a low-frequency sinusoidal output voltage using the high-frequency modulation of the resonant pulses, was developed. It assumes the preliminary formation of the switching sequences for the converter's switches. It was proposed to use the circuit with the switched capacities to change the pulse characteristics while reducing the absolute value of the inverter's output voltage. The algorithm for the calculation of the switching sequences was proposed. The simulation of the inverter took place. It confirmed the reduction of the output voltage distortions. References 7, figures 3.

Key words: frequency converter, resonant inverter, non-linear control.

Received: 24.01.2016

Accepted: 07.04.2016

Published: 13.09.2016

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