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ADAPTIVE CONTROL SYSTEM OF THE FREQUENCY CONVERTER ON THE BASIS OF RESONANT INVERTER WITH NONLINEAR CONTROL

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Abstract

The adaptive microprocessor control system of the frequency converter based on the resonant inverter is developed, which allows, by implementing of the soft switching of power transistors, forming the low-frequency sinusoidal output voltage with low THD and, extending the operating range of the load characteristics of the converter due to the adaptive regulation. The corrected value of the relative output voltage, which is considered during the formation of the control pulses sequence, which goes to the key elements of the circuit, during the escape from the

operating range of the load characteristics of the converter, is determined. References 8, figures 3.

Key words: frequency converter, resonant inverter, adaptive control system, load characteristic.

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