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PHASE-LOCKED LOOP SYSTEM OF RESONANCE INVERTERS FOR INDUCTION HEATING INSTALATION WITH PULSE DENSITY MODULATION

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Abstract

In the paper, it is presented the study of phase-locked loop (PLL) systems of high-frequency transistor inverters having the output series resonant circuit and inverter control with the aid of pulse density modulation for inductive heating installations. It is suggested a control method with PLL, when on the interval of the inverter output voltage presence feedback signals on transistor collector-emitter (drain-source) voltage are bring used, and on the interval of zero output voltage – only the feedback signals on the output current. References 7, figures 5.

Key words: inductive heating, high-frequency resonant inverter, phase-locked loop (PLL).

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