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INVESTIGATION OF PROPERTIES OF COMBINED SCHEME OF SINGLE-PHASE SWITCHING OF INDUCTION ELECTRIC DRIVE OF PUMPING PLANTS

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Abstract

A combined circuit for single-phase switching of a voltage-controlled induction electric drive with a three-phase motor is proposed for pump plants, which allows to obtain satisfactory operational and power characteristics in starting and operating modes at a constant capacitance of a phase-shift capacitor. It is proved that it is possible to reduce power losses due to the use of different switching the circuits of the motor windings at different speed control ranges as compared to schemes with a constant structure. References 9, figures 5.

Key words: induction electric drive, phase-shift capacitor, single-phase power supply.

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