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INFLUENCE OF CROSS-CURRENT CURRENTS ON CHARACTERISTICS OF INDUCTION MOTORS

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To calculate the design of asynchronous motors with bevel grooves with a given value of the resistance of insulation of the rotor cell developed a technique. The line with distributed parameters, which is a model of the rotor in the presence of transverse currents, is replaced by 70 elementary circuits. It has been theoretically and experimentally established that transverse currents significantly increase the moments of the engine. The dependences of the multiplicity of the motor moments on the value of the resistivity of the insulation of the rotor cell are obtained. It has been experimentally established that when the rotor is heated by currents in a cell, at a temperature of the order of 250-300 ° C, the resistance of rod insulation increases, which leads to an increase in current and torque. References 7, figures 4, tables 2.

Key words: squirrel-cage rotor, insulation resistance, resistance jump, transverse currents, bevel of slots.

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