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MATHEMATICAL MODEL AND WORKING REGIMES OF INDUCTION MOTORS OPERATING WITHIN THERMAL POWER STATIONS

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Abstract

A mathematical model of the modes of operation of the asynchronous motor complex for the own requirements of thermal electric power stations in the currents of the phase is developed in the article as well an accent is focused on explicit methods of numerical integration of the differential equations system. A program code was created on its basis as a tool of studying the operating modes of such engines. The investigation of electromagnetic and electromechanical

processes is carried out. The basic patterns of their transmission in the modes of start-up, stopping, self-launch of asynchronous motors and the regulation of the productivity of the units of their own needs by changing the frequency of rotation of asynchronous motors by changing their number of pairs poles [3, table. 5] are described in the paper. References 8, figures 5.

Key words: mathematical model, numerical methods, asynchronous motor, thermal power station, individual requirements of electric stations, operating modes of asynchronous motors

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