ANNOTAION

In the diploma project was done work on the development of a program for calculating the parameters of an asynchronous motor from the source data. Due to this program, it is possible to calculate equivalent circuit parameters using technical information of motor: power, speed, efficiency, cosφ, rated current, rated torque and the ratio of the starting torque and current to their nominal values, the critical moment to the nominal and the dynamic moment of inertia of the rotor.

Those calculations allow matlab model to calculate losses for different types of asynchronous motor start-up. For model of asynchronous motor start-up was developed complex blocks using Simulink Simscape libraries. To set the frequency increase method, a program was written in the matlab programming language, which can later be applied to any type of controller or software.

Based on the simulation results, the analysis revealed the most cost-effective method for increasing frequency when using active and reactive loads.

In the section of life safety, technical and organizational measures of harmful and dangerous factors were considered during operation of the elevator with my development applied.

In the economic part of the thesis, capital expenditures and operating costs of the elevator were calculated. Was made analysis of material investments in the modernization of the electric drive of the Elevator and the payback period of these investments.