

SUMMERY

Master's thesis contains: 138 pages; 38 figures; 32 tables; 6 of graphic sheets; 76 references.

In this master's work, the studies of an algorithm for indirect vector control by an asynchronous generator based on an asynchronous machines, was conducted. The investigated algorithm of vector voltage control in the DC link provides an asymptotic realization of the predetermined voltage, which is confirmed experimentally and by mathematical modeling. The effect of variations in the resistance of the rotor circuit on the operation of an asynchronous generator is studied. Mathematical modeling of indirect vector control of an asynchronous generator is carried out taking into account the saturation of the magnetic system in the generator model. It is proved by modeling and experimental testing, the expediency of taking into account the magnetization curve in the generator model having obtained satisfactory results.

The development of an experimental installation has been carried out, which makes it possible to study new algorithms for controlling an asynchronous generator, and which carried out a full-scale research.

ASYNCHRONAL GENERATOR, VECTOR CONTROL, POWER CURVE FUEL, LONG TERM STRUCTURE STRESS, LINEARIZATION OF OUTPUT RELATIONSHIP, SYNTHESIS, STUDY, MAGNETIC SYSTEM HIGH, CRIMINAL MAGNETICS.

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