

SUMMARY

Diploma project contains: 125 pages; 64 figures; 38 tables; 5 of graphic sheets; 45 references.

The purpose of this diploma project is to increase the quality control parameters in asynchronous electric drives with frequency and vector control algorithms by dead time compensation of the inverter.

In this master's work, the research of the algorithm of compensation the influence of the dead time on an experimental installation based on squirrel cage asynchronous motor, which was developed and made during the research practice, was conducted. The static characteristics of the input / output of the autonomous voltage source inverter are investigated. The study of dynamic characteristics of frequency, indirect vector and sensorless control of angular velocity using the algorithm of compensation of the dead time and without it. The results obtained experimentally indicate the expediency of using the investigated algorithm of dead time compensation.

The developed experimental installation can be used for further research of new algorithms of compensation of the dead time.

DEAD TIME, SWITCHING FREQUENCY OF PWM, PWM, VPWM, VSI, IM WITH SQUIRELL CAGE, VECTOR CONTROL, SENSORLESS CONTROL, CONTROL SYSTEM, FREQUENCY CONVERTER.

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Devel.	G Kuznetsov				Control systems for asynchronous motors with increased dynamic and static characteristics Summary	L.	Page	Pages
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