

SUMMARY

The master's dissertation contains 106 pages, 35 figures, 44 formulas, 30 tables, 28 references and a graphic part on 6 sheets of A1 format.

In this master's dissertation the analysis and development of ways to improve the quality of electricity at the output of the matrix frequency converter of asynchronous electric drives was carried out. The modes of operation of matrix frequency converters for improving the quality of electricity by means of pulse-width modulation have been studied. The calculation and selection of the induction motor and elements of the power part are carried out.

The control model was modeled on the basis of the mathematical model of the induction motor and the dynamic characteristics of motor operation were investigated.

The calculation and implementation of this master's thesis were provided using the following programs: Microsoft Office Word, Microsoft Office Visio, Mathcad, MatLab, MathType.

ELECTRIC AC DRIVES, FREQUENCY CONVERTERS, PULSE WIDTH
MODULATION, MATRIX CONVERTER, VECTOR CONTROL, POWER PART,
CONTROL SYSTEM, NON-SINUSOIDALITY.

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Devel.	V.Hrytsenko									5	106
Checked	V. Mikhalsky							NTUU «Igor Sikorsky Kyiv Polytechnic Institute», <i>FEA</i>			
N. Contr.	V.Kotlyarova										
Approved.	S. Peresada										