

SUMMARY

The diploma project comprises: 124 pages, 30 figures, 19 tables, graphical part on 6 pages A1.

This final qualification work is devoted to the development of the asynchronous electric drive system for lifting the bridge crane.

In this work the electromechanical part of the mechanism of the bridge crane is projected. The engine power calculations were made, the engine was selected, the correctness of the choice of the asynchronous motor was checked. The research of static and dynamic modes of operation of the control system by the method of mathematical modeling was conducted. The calculation of the power unit is done. The scheme of the electric principle control system of the lifting mechanism of the bridge crane is developed.

Calculation and realization of the diploma project occurred by using the following software: Simulink, Microsoft Office Word 2013, Microsoft Office Visio 2013, mathtype 6.9..

BRIDGE CRANE, CONTROL SYSTEM, MECHANISM LIFT, ASINCHRONAL ELECTRIC DRIVE, ASYNCHRONY MOTOR WITH SHORT-CONTAINED ROTOR, VECTOR CONTROL, MATHEMATICAL MODEL, TRANSITIONAL PROCESSES, CONVERTER

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	Letter	№ of doc.	Sign.	Date	<i>Asynchronous electric drive of the lifting mechanism of the bridge crane</i> <i>Summary</i>	L.	Page	Pages
Devel.	D. Kunkov							
Checked	V. Bovkunovych						7	124
N. Contr.						<i>NTUU «KPI», FEA Department AEMS-ED gr. EP-z71MP</i>		
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