

ABSTRACT

The thesis comprises: 93 pages, 32 figures, 32 tables, and graphical part on 6 pages A1.

The thesis aims to develop the method of calculating the parameters of the electric vehicle drivetrain, based on a permanent magnet synchronous motor.

Parameters of traction motor, battery pack, and control circuit elements of the electric vehicle drivetrain were calculated. Loss minimization control algorithm for interior permanent magnet synchronous motor was developed. Electromechanical system performance characteristics were studied by mathematical simulation. The efficiency of the developed control algorithm was compared with the conventional vector control method.

LOSS MINIMIZATION, PERMANENT MAGNET SYNCHRONOUS MOTOR,
MATHEMATICAL MODEL, ELECTRIC DRIVETRAIN, BATTERY

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	<i>Page</i>	<i>№ of doc.</i>	<i>Sign.</i>	<i>Date</i>	<i>Electric vehicle drivetrain based on permanent magnet synchronous motor with loss minimization control algorithm</i>			<i>L.</i>	<i>Page</i>	<i>Pages</i>
<i>Developed</i>	<i>P. Soroka</i>		<i>16.12.20</i>	<i>6</i>				<i>93</i>		
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