DOI: https://doi.org/10.15407/techned2018.05 . 031

RESEARCH OF A BI-DIRECTIONAL DC-DC CONVERTER OF UNIFIED INVERTER MODULE FOR APPLICATION IN ENERGY ACCUMULATION SYSTEMS

Journal	Tekhnichna elektrodynamika
Publisher	Institute of Electrodynamics National Academy of Science of Ukraine
ISSN	1607-7970 (print), 2218-1903 (online)
Issue	No 5, 2018 (September/October)
Pages	31 – 34

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The results of the simulation modeling of a bidirectional dc-dc converter, which is part of the unified inverter module of multimodal systems of accumulation of electric power utilization, are presented, and the influence of the basic parameters and operating modes of the converter on the value of the currents of the power elements is investigated. The maximum values of currents and voltages in a 300 kW power converter are obtained, which provides the possibility of a reasonable choice of power switching elements, engineering calculations and the choice of power reactive elements and control system parameters. References 7, figures 5.

Key words: systems for the accumulation of electricity, bi-directional dc-dc converter, bi-directional inverter module, IGBT- module.

Received: 05.03.2018
Accepted: 21.03.2018
Published: 16.08.2018

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