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THE OVERHEAD LINE VOLTAGE STABILIZATION TO INCREASE THE EFFICIENCY OF THE DC ELECTRIC RAIL TRACTION SYSTEM

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Authors

D.V. Tugay^{1*}, G.G. Zhemerov^{2}**

¹ – O.M. Beketov National University of Urban Economy in Kharkiv, str. Marshal Bazhanov, 17, Kharkiv, 61002, Ukraine, e-mail: tugaydmytro@gmail.com

² – National Technical University Kharkov Polytechnic Institute, str. Kirpichova, 2, Kharkiv, 61002, Ukraine, e-mail: zhemerov@gmail.com

* ORCID ID : <http://orcid.org/0000-0003-2617-0297>

** ORCID ID : <http://orcid.org/0000-0002-3469-0121>

The possibility of increasing the efficiency of the DC electric rail traction system due to the use of active rectifiers – voltage sources on traction substations for voltage stabilization on the electric rolling stock pantograph is substantiated. The calculation formulas allowing determining the trajectories of the voltage stabilization on the rolling stock pantograph depending on the position of the electric train are obtained. These formulas allow us to determine for the two stabilization methods – «synchronous» and «asynchronous». References 5, figures 4, table 1.

Key words: voltage stabilization, overhead line, pantograph, efficiency.

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