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THE MATRIX CONVERTER INPUT CURRENT FORMATION IN THE CASE OF INPUT VOLTAGE DISTORTIONS

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Authors

V.M.Mykhalskyi[1]*, V.M.Sobolev[1], V.V.Chopyk[1], I.A.Shapoval[1], M.Yu. Artemenko[2]**

[1] – Institute of Electrodynamics of the National Academy of Sciences of Ukraine,
Peremohy pr., 56, Kyiv-57, 03680, Ukraine,
e-mail: mikhalsky@ied.org.ua

[2] – National Technical University of Ukraine "KPI",
Peremohy pr., 37, Kyiv, 03056, Ukraine,
e-mail: artemenko_m_ju@ukr.net

ORCID ID: * http://orcid.org/0000-0002-8251-3111

ORCID ID: ** http://orcid.org/0000-0002-9107-5061

Abstract

The matrix converter (MC) control methods based on MC input reactive power control algorithm, which aims to improve the quality of the MC input currents under conditions of non-sinusoidal voltages of the power network have been developed and studied. With this purpose, variants of setting the direction of the input current space vector relative to the input voltage space

vector by appropriate regulation of the reactive component of the current have been considered. The simulation showed the effectiveness of the proposed approach to improve the quality of the MC input currents. References 7, figures 2, table 1.

Key words: matrix converter, input current, reactive power, non-sinusoidal input voltage.

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