

**Название:** The Influence of the Parameters of a Ferromagnetic Shield on the Efficiency of a Linear Induction-Dynamic Converter

**Авторы:** Bolyukh V.F.,  
Oleksenko S.V.

**Ключевые слова:** linear induction-dynamic converter; ferromagnetic shield; computer model; integral efficiency parameter; experimental investigations

**Дата публикации:** 2015

**Издатель:** Allerton Press, Inc.

**Библиографическое описание:** Bolyukh V.F. The Influence of the Parameters of a Ferromagnetic Shield on the Efficiency of a Linear Induction-Dynamic Converter / V.F. Bolyukh, S.V. Oleksenko // Russian Electrical Engineering. – 2015. – Vol. 86, № 7. – p. 425-431.

**Краткий обзор (реферат):** The influence of the geometrical parameters of a ferromagnetic shield on the operation of a linear induction-dynamic converter was investigated with the help of the integral efficiency parameter. Values of geometrical parameters of the shield with the best converter performance for different means of determining key indicators were obtained by the local optimization method. Experiments have proven that, depending on the geometrical parameters, the ferromagnetic shield increases the armature speed up to 47%, decreases the maximum current in the inductor down to 35%, and increases the time to peak current up to 21% as compared with the converter without the ferromagnetic shield. Satisfactory concurrence was obtained between experimentally measured and calculated parameters of the linear induction-dynamic converter.

**Ссылка на статью** (доступны первая и вторая страницы статьи для просмотра)  
<http://link.springer.com/article/10.3103/S1068371215070044>