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# COMPARATIVE ANALYSIS OF CONSTRUCTIVE TYPES OF COMBINED LINEAR PULSE ELECTROMECHANICAL CONVERTERS



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**Abstract**

*A computer model of a linear pulsed electromechanical converter (LPEC) of a cylindrical configuration that describes electromagnetic and electromechanical processes with spatially-distributed parameters is developed. The analysis of constructive types of combined LPEC designed to create mechanical impulses whose armatures are made in the form of a copper disk and/or multi-turn coil, which is connected in series or in parallel with the inductor, is analyzed. The nature of the electromechanical processes and distribution of the magnetic field in the active zone of the constructive types of combined LPEC is established. Using the efficiency criterion, which takes into account the electrical, force and field (induction of the magnetic scattering field) indicators and reliability in a relative form, it is shown that for all variants of the estimation strategy, the most effective design is the of the constructive type of* *combined LPEC design with the front and rear electrically conductive armature, and with the coil armature, which is connected in series with the inductor.* References 10, figures 3, tables 2.

***Key words***: linear pulse electromechanical converter, constructive types, electrically conductive armature, coil armature, efficiency criterion.

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