

MODIFIED CAPACITOR-SWITCH ASSEMBLY FOR LTD GENERATORS OF PETAWATT POWER LEVEL*

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Currently, LTD-technology is positioned as a promising direction in the construction of high-current pulse installations of a new generation. The development of LTD-cavities, as a basic element of LTD-generators, is actively underway in the USA, China and Russia [1 - 9].

Most of the developments in this area are carried out using "bricks" based on high-voltage capacitors manufactured by GA, models No. 35473, No. 35479, No. 35462 with a nominal capacity (40-100) nF [10], or their analogues. But in [11], the authors presented a prototype of a capacitor-switch assembly (CSA) of a unique design with an output power level exceeding the existing values. In [12 - 14], it was proposed to use CSA to create compact LTD generators, and in [15, 16], technical requirements for CSA for use in LTD generators with a water transmission line of a petawatt power level were formulated.

This paper presents the design and results of resource tests of the CSA, which can be used as a basic LTD driver in electrophysical installations with an initial energy reserve of up to 50 MJ.

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