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Method of data compression of the results of the calculation of electromechanical transients.

To perform a qualitative analysis of the results of the calculation of electromechanical transient processes a sufficient amount of results is needed, free from errors not directly related to the calculation algorithm. With a significant dimension of the model, a long duration of calculations and high requirements for their accuracy, the volume of results can reach values many times greater than the amount of initial data. Since transient calculations are usually carried out for a variety of model variants, storage of results due to large volumes can be difficult even with the capabilities of modern computer systems.

A method of compressing calculation results is proposed, which allows to fully preserve initial data characteristics with a reduction in volume to 40% of the original with minimal computational costs.

Keywords: electromechanical transients, dynamic stability, lossless data compression algorithm, predictive data compression, compression of double-precision number arrays.