

Macromodel of a six-phase synchronous machine in phase coordinates for the study of processes in electric power systems.

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A macromodel of a six-phase synchronous machine in a phase coordinate system is proposed. The macromodel is formed by equivalent circuits and differential equations. A study of the processes of disconnecting short-circuit currents in the scheme containing the proposed macromodel is performed. It is shown that under certain conditions, a long-term arc effect on the switch contacts can be observed.

Keywords: macromodel, simulation model, six-phase synchronous machine, phase system of coordinates, short circuit.