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# Dynamic Modeling of Pulsed Alternators using LTspice

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We are reporting on the formulation and performance of dynamic models for Pulsed Alternators for LTspice. The models are modular and hierarchical and cover both the electrical and mechanical aspects of the electric machine including the mechanical torque, speed and inertia. The models also include the effects of the damper cage and the excitation winding to accurately represent the sub-transient and transient behavior. The models can be also used to represent synchronous generators in steady state operation. LTspice is a powerful, widely available software package that can be used to model Pulsed Power circuits.

We are presenting the detailed models as well as results of the simulations.

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