

*Induction machine, saturation, mathematical model,
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MATLAB-SIMULINK MODELLING OF INDUCTION MACHINE INCORPORATING MAGNETIC SATURATION

In this paper the computer model of the cage induction machine incorporating magnetic non-linearity was presented. The model contains the mathematical model of the induction machine recorded as an S-function and the connecting blocs attaching the model from one side to the three-phase terminals of the supply system model and from the other to the system of mechanical model. Hence, SimPowerSystems and SimMechanics libraries can be used. Such a methodology allows for various drives modelling were the induction machine operates as a motor or a generator and cooperates with power electronics. Using wide range of Simulink possibilities various control techniques can be applied. Using this methodology the own mathematical models of other electrical machines together with the Simulink library models can be used.

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