

Effect of Measured and Calculated Static Torque on Instantaneous Torque Profile of Switched Reluctance Motor

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Abstract : The simulation modeling of switched reluctance (SR) machine often relies and uses the three data tables identified as static torque characteristics that include flux linkage characteristics, co energy characteristics and static torque characteristics separately. It has been noticed from the literature that the data of static torque used in the simulation model is often calculated so far the literature is concerned. This paper presents the simulation model that include the data of measured and calculated static torque separately to see its effect on instantaneous torque profile of the machine. This is probably for the first time so far the literature review is concerned that static torque from co energy information, and measured static torque directly from experiments are separately used in the model. This research is helpful for accurate modeling of switched reluctance drive.

Keywords : static characteristics, current chopping, flux linkage characteristics, switched reluctance motor

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