

## عنوان مقاله:

Comparison between 2D-FEM and 3D-FEM Dynamic Performances of Switched Reluctance Motor

## محل انتشار:

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## خلاصه مقاله:

Although many researchers use two-dimensional finite-element (2D-FEM) to analyze rotary motors, this paper presents that 2D-FEM is not always reliable. In this paper, the dynamic analysis of an 8/6 SRM based on FEM is performed. The SRM has been analyzed with Ansoft Maxwell. The results are shown that 2D-FEM is not acceptable compared to 3DFEM. The relative error in Mean value of moving torque ( ) is 17.17 %. 17% error in mean value of moving torque shows 2D-FEM's weakness to analyze SRM. Although 2D-FEM has simple principles, the design of the motor using FEM requires a careful consideration of all flux paths. The advantage of 3DFEM compared to 2D-FEM is consideration of all flux paths.

## کلمات کلیدی:

Switched reluctance motor (SRM), 2D-FEM, 3D-FEM

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/121823>

