

## Eddy Currents in Windings of Switched Reluctance Machines



Filesize: 2.35 MB

### ***Reviews***

*A top quality pdf and also the font applied was fascinating to learn. it was actually writtern extremely properly and valuable. I discovered this publication from my i and dad recommended this publication to find out.*

*(Jan Schowalter)*

## EDDY CURRENTS IN WINDINGS OF SWITCHED RELUCTANCE MACHINES

DOWNLOAD



To save **Eddy Currents in Windings of Switched Reluctance Machines** eBook, make sure you access the link beneath and download the ebook or have access to other information which are have conjunction with **EDDY CURRENTS IN WINDINGS OF SWITCHED RELUCTANCE MACHINES** ebook.

Shaker Verlag Mai 2008, 2008. Taschenbuch. Book Condition: Neu. 21x14.8x cm. Neuware - Within this work a switched reluctance traction drive was investigated at the Institute for Power Electronics and Electrical Drives (ISEA) in Aachen. Three different winding geometries were applied to the prototype machine. Measurements resulted in distinct differences of machine efficiency (88.5 %, 90.5 %, 93.4 %), obviously originated in different eddy current losses. The publication of Klauz is the first and only known work in which eddy currents in switched reluctance machines were calculated by finite element simulations. The average copper losses of a low voltage machine with four turns per coil were found to vary by over 600 % between the different conductors. Klauz' results confirm clearly the need to consider eddy current losses in the design process of new machine designs. However, the presented simulation models need to be built manually for each investigated geometry. Thus, a variation of the winding geometry implies an unreasonable effort. Moreover, solely single pulse operation was investigated. The main objective of this thesis lies in the development of a universal simulation process for switched reluctance machines that includes eddy current losses and allows the operation with different control structures like hysteresis control, single pulse operation or pulse width modulation (PWM). An important aspect is the development of a tool for fully automated generation of finite element models with adjustable winding geometry. This is a key requirement to allow design optimization based on geometry variation. The inclusion of converter losses, iron losses, friction losses and end-effects completes the simulation model. As a result, the new simulation tool allows to predict performance and efficiency of new machine designs very accurately. Since the focus of the thesis lies on the determination of winding eddy currents, the fundamentals of analytic eddy current loss...



[Read Eddy Currents in Windings of Switched Reluctance Machines Online](#)



[Download PDF Eddy Currents in Windings of Switched Reluctance Machines](#)

## See Also



### **[PDF] Psychologisches Testverfahren**

Follow the web link under to read "Psychologisches Testverfahren" PDF document.

[Read Document »](#)



### **[PDF] Read Write Inc. Phonics: Yellow Set 5 Storybook 4 the Gingerbread Man (Paperback)**

Follow the web link under to read "Read Write Inc. Phonics: Yellow Set 5 Storybook 4 the Gingerbread Man (Paperback)" PDF document.

[Read Document »](#)



### **[PDF] Programming in D**

Follow the web link under to read "Programming in D" PDF document.

[Read Document »](#)



### **[PDF] Adobe Indesign CS/Cs2 Breakthroughs**

Follow the web link under to read "Adobe Indesign CS/Cs2 Breakthroughs" PDF document.

[Read Document »](#)



### **[PDF] Have You Locked the Castle Gate?**

Follow the web link under to read "Have You Locked the Castle Gate?" PDF document.

[Read Document »](#)



### **[PDF] The Java Tutorial (3rd Edition)**

Follow the web link under to read "The Java Tutorial (3rd Edition)" PDF document.

[Read Document »](#)