[Free membership] Become a JMAG WEB MEMBER

After become a JMAG WEB MEMBER, various technical materials can be viewed. In addition, JMAG-Express Online, from which motor design can be carried out on the Web, can be used with the same ID.

What are available after registering to JMAG WEB MEMBER

White Papers

White Papers feature particularly substantial supporting information for JMAG performance evaluations, application limits, modeling methods, etc.
 [W-OP-165] Solving Geometry Conflicts in GA

 Optimizations with Large Numbers of Geometric Parameters
 [W-MB-167] Motor Plant Model Considering AC Loss for Control Calibration

JMAG Users Conference Proceedings

More than 580 materials presented in Japan, the U.S., Europe, and other countries are available to read. Topology Optimization, AI, MBD, Material.

Webinar

- Prof. Miller:Brush up on Motor Design!" (Updated monthly)
- Video for Introducing the New Functions of JMAG



JMAG-RT Model Library

Various sample files of JMAG-RT with MATLAB/Simulink can be downloaded



Many more services are available to members only. For details, see the JMAG website.

Searching for material

By combining multiple categories, searching or refining a search can be performed.

- Document categories ··· Function tutorials, application catalogs, white papers
- Analysis types Magnetic field analysis, electric field analysis, cogging analysis, etc.
- Module lists and others



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13,367

members in the world

*As of Sep, 2024



Capable of Computing Basic Motor Characteristics in Just 1 Sec

JMAG-Express Online is a parameter-based motor design support tool.

JMAG-Express Online now has the ability to evaluate all the motor characteristics like Torque-Speed characteristics, Loss characteristics, Inductance characteristics, etc.

> You can design motors anytime, anywhere, on the go or at home.





Evaluate torque, efficiency, loss, and inductance characteristics with graphs and numerical values

Rotation speed vs torque characteristics, iron loss / copper loss characteristics, etc. are displayed in graphs in an instant. Motor characteristics can be confirmed from tables of machine constants.





Performance Graph

Design sheet

Define geometries with templates

Templates for PMSMs, induction machines and brush motors are available.



IPM



SPM



Induction motor

(Single-Phase) (Three-Phase)

SRM



DC brush

motors



Synchronous

machines



Claw Pole Alternator

Efficiency Maps

When creating maps, voltage and current limits can be applied. Multiple maps can be compared while using the parametric function.



Temperature Evaluation

The thermal model is evaluated using various heat generation sources like Copper Losses, Iron Losses, and Mechanical losses.



Thermal equivalent circuit model

