



Ansys Motor-CAD

Electric Machine Design Software

Ansys Motor-CAD is a dedicated electric machine design tool for fast multiphysics simulation across the full torque-speed operating range.

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Fast multiphysics simulation across a full torque-speed operating range

Motor-CAD enables design engineers to evaluate motor topologies and concepts across the full operating range, to produce designs that are optimized for performance, efficiency and size. Motor-CAD software's four integrated modules—EMag, Therm, Lab, Mech—enable multiphysics calculations to be performed quickly and iteratively, so users can get from concept to final design in less time.

- ✔ Intuitive, Template-Based Set Up
- ✔ Full Operating Range Design
- ✔ Built-in EM, Thermal and Mechanical Solvers
- ✔ Thermal Sizing of Machines

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Quick Specs

Fast calculations and streamlined data input processes leave time for Motor-CAD users to explore more motor topologies and fully assess the impact of advanced loss effects in the initial stages of an electromechanical design.

2D FEA coupled with analytical solution

Temperature dependent Duty-Cycle

DXF and scriptable geometries

Multi-slice skew

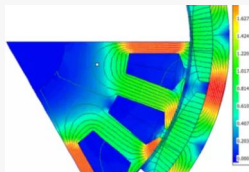
CFD, FEA and empirical correlations

Efficiency and loss maps calculations

JANUARY 2023

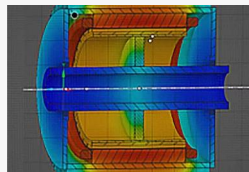
What's New

NVH enhancements for induction machines, automated workflows, integration improvements with a multiplicity of other Ansys tools, and enhancements to modeling hairpin winding and rotor geometries are some of the many new capabilities in this release.



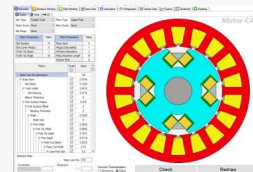
Noise, Vibration and Harshness Enhancements

NVH Enhancements are available now for induction machines, including transient calculation and across-the-board performance improvements. Improved integrations with Ansys optiSLang, Mechanical, and Sound are included to support NVH analysis and simulation.



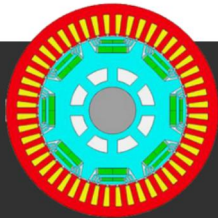
Automated Workflow

Automated workflows with Ansys Discovery, Mechanical, Maxwell, and Fluent model export and setup for improved computational multiphysics support.



Rotor Geometries

The addition of various rotor geometries for use in parameter-driven optimization using Ansys optiSLang.



FREE TRIAL OF MOTOR-CAD

Watch it work for your business

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Ansys software is accessible

It's vital to Ansys that all users, including those with disabilities, can access our products. As such, we endeavor to follow accessibility requirements based on the US Access Board (Section 508), Web Content Accessibility Guidelines (WCAG), and the current format of the Voluntary Product Accessibility Template (VPAT).

[VIEW VPAT REPORTS ▶](#)



See What Ansys Can Do For You

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Are You a Student? * Phone * Country/Region *

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Product Interest

Comments

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