+357 96 030922
info@marketpublishers.com

Global Electric Machine Design and Analysis Software Market 2026 by Company, Regions, Type and Application, Forecast to 2032

https://marketpublishers.com/r/GE2C684E5566EN.html
Date: June 2026
Pages: 158
Price: US$ 3,480.00 (Single User License)
ID: GE2C684E5566EN

Abstracts

According to our (Global Info Research) latest study, the global Electric Machine Design and Analysis Software market size was valued at US$ 1192 million in 2025 and is forecast to a readjusted size of US$ 2316 million by 2032 with a CAGR of 10.0% during review period.

Electric Machine Design and Analysis Software refers to specialized engineering design and simulation tools used for the development of electric machines, electric drive systems, and related rotating electromagnetic equipment. It is mainly applied to permanent magnet synchronous motors, induction motors, switched reluctance motors, synchronous reluctance motors, brushless DC motors, generators, and special-purpose electric machines. Its core functions typically include electromagnetic field calculation, magnetic circuit design, winding design, torque and efficiency analysis, loss and temperature-rise evaluation, demagnetization assessment, noise and vibration analysis, mechanical strength verification, drive-control matching, duty-cycle simulation, and automated design optimization. The software can be used for rapid sizing and selection during the concept design stage, as well as 2D/3D finite element analysis, prototype validation, and pre-production engineering iteration during detailed design. The statistical boundary should focus on software used for modeling, designing, simulating, and optimizing electric machines and electric-drive-related performance. General CAD drafting tools, project management software, or pure production management systems should not be included in the core scope. With the growth of electric vehicles, industrial energy efficiency, robotics, aerospace electrification, and high-efficiency pump and fan systems, this software category is evolving from a single-purpose simulation tool into a digital R&D platform connecting materials, structure, control, thermal management, and manufacturing processes.

+357 96 030922
info@marketpublishers.com

Electric Machine Design and Analysis Software is a high-knowledge-density product with substantial R&D input. Its gross margin can generally be estimated at 65%–90%. Standard licensed software, subscription-based products, cloud simulation modules, and mature solver platforms usually achieve higher margins, typically in the 75%–90% range. Customized development, engineering consulting, model library construction, and system integration projects for large automotive, motor, aerospace, or industrial customers usually fall within the 35%–65% range because they require more delivery staff, longer validation cycles, and customer-specific adaptation. The upstream value chain includes electromagnetics, thermal science, structural mechanics, fluid dynamics, control algorithms, optimization algorithms, material databases, experimental test data, cloud/HPC resources, and software development tools. The midstream includes software architecture, finite element solvers, analytical design models, CAD/CAE interfaces, parametric modeling, automated optimization, AI-assisted design, digital twins, and license management. Downstream customers include EV and component manufacturers, industrial motor producers, appliance and compressor companies, robotics companies, wind power and power generation equipment manufacturers, aerospace electric propulsion teams, universities, and research institutes. Profitability is mainly determined by algorithm barriers, solver accuracy, engineering database accumulation, customer lock-in, subscription renewal rates, ecosystem compatibility, and industry qualification experience.

Market Development Opportunities & Main Driving Factors

The growth of Electric Machine Design and Analysis Software is driven by the shift from experience-based motor development to model-driven R&D. Electric vehicles, industrial energy efficiency, electric aviation, robotics, and high-efficiency appliances are pushing motors toward higher power density, higher efficiency, lower noise, lower cost, and stronger reliability. Traditional prototype-based trial-and-error methods are increasingly insufficient for rapid iteration. Policy requirements for high-efficiency motors, industrial energy saving, and electrified system efficiency continue to rise, requiring motor companies to complete electromagnetic, thermal, structural, control, and manufacturability validation at an earlier design stage. U.S. energy authorities identify motor-system energy-saving tools and high-efficiency equipment procurement as important levers for industrial energy efficiency, while electric vehicle development continues to strengthen demand for electric drive R&D. At the same time, digital twins, AI optimization, and cloud simulation are entering engineering workflows, upgrading software from standalone simulation tools into enterprise-level R&D data assets and platform capabilities.

+357 96 030922
info@marketpublishers.com

Market Challenges, Risks, & Restraints

The core challenges of this market are high technical barriers, high customer switching costs, and long validation cycles. Electric machine design involves multidisciplinary coupling across electromagnetics, thermal behavior, structure, NVH, controllers, and manufacturing processes. The software must ensure solver accuracy while maintaining computing speed, usability, and engineering interpretability. If material databases, loss models, demagnetization models, winding models, or thermal boundary conditions are inaccurate, simulation results cannot reliably support production decisions. In addition, large customers usually already have established CAE workflows, internal model libraries, and engineering habits. New software must pass extensive benchmarking and project validation before entering core R&D processes. For software suppliers, continuous R&D investment, solver stability, industry template accumulation, after-sales engineering support, and localized service capability all affect commercialization speed. Competition will shift from individual feature comparison to integrated capability in multiphysics coupling, automated optimization, data closed-loop, and embedded engineering workflows.

Downstream Demand Trends

Downstream demand will continue to expand across electric vehicles, high-efficiency industrial motors, robotics, aerospace electric propulsion, and distributed energy equipment. EV customers focus more on co-optimizing the motor with the inverter, battery, thermal management system, and vehicle duty cycles. Industrial customers focus on efficiency compliance, lifecycle energy consumption, reliability, and rapid customization. Robotics, drones, and aerospace electric propulsion place stronger emphasis on lightweight design, high speed, high power density, and low noise. Continuous updates to motor efficiency standards in major economies will also encourage companies to conduct efficiency, loss, and compliance simulations earlier in the product development stage. Future purchasing logic will shift from buying a single simulation module to adopting a full R&D platform covering concept design, detailed simulation, optimization iteration, test validation, and digital twin deployment. Software products with AI-assisted optimization, multiphysics coupling, cloud collaboration, and industry-specific model libraries will be better positioned to enter premium electric drive and industrial energy-efficiency development systems.

This report is a detailed and comprehensive analysis for global Electric Machine Design and Analysis Software market. Both quantitative and qualitative analyses are presented

+357 96 030922
info@marketpublishers.com

by company, by region & country, by Type and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Electric Machine Design and Analysis Software market size and forecasts, in consumption value ($ Million), 2021-2032

Global Electric Machine Design and Analysis Software market size and forecasts by region and country, in consumption value ($ Million), 2021-2032

Global Electric Machine Design and Analysis Software market size and forecasts, by Type and by Application, in consumption value ($ Million), 2021-2032

Global Electric Machine Design and Analysis Software market shares of main players, in revenue ($ Million), 2021-2026

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries

To assess the growth potential for Electric Machine Design and Analysis Software

To forecast future growth in each product and end-use market

To assess competitive factors affecting the marketplace

This report profiles key players in the global Electric Machine Design and Analysis Software market based on the following parameters - company overview, revenue, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include ANSYS (Synopsys), JMAG (JSOL Corporation), Altair (Siemens), Siemens, Dassault Syst?mes, COMSOL, MathWorks, VEPCO Technologies, SimScale, EMWorks, etc.

+357 96 030922
info@marketpublishers.com

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market segmentation

Electric Machine Design and Analysis Software market is split by Type and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for Consumption Value by Type and by Application. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Type

Cloud-based

On-premises

Market segment by Function

Electromagnetic Design & Analysis Software

Thermal & Cooling Design Software

Structural, NVH & Mechanical Analysis Software

Others

Market segment by Integration Level

Standalone

Integrated

Market segment by Application

Industrial and Manufacturing

+357 96 030922
info@marketpublishers.com

Aerospace & Defense

Automotive and Transportation

Energy and Utilities

Others

Market segment by players, this report covers

ANSYS (Synopsys)

JMAG (JSOL Corporation)

Altair (Siemens)

Siemens

Dassault Syst?mes

COMSOL

MathWorks

VEPCO Technologies

SimScale

EMWorks

Gamma Technologies

Plexim

E-Circuit Motors

Quickfield (Tera Analysis)

+357 96 030922
info@marketpublishers.com

Alva Industries

Neural Concept

EMDtool (Smeklab)

KOMOTEK

ZWSOFT

PERA Global

INTESIM

Market segment by regions, regional analysis covers

North America (United States, Canada and Mexico)

Europe (Germany, France, UK, Russia, Italy and Rest of Europe)

Asia-Pacific (China, Japan, South Korea, India, Southeast Asia and Rest of Asia-Pacific)

South America (Brazil, Rest of South America)

Middle East & Africa (Turkey, Saudi Arabia, UAE, Rest of Middle East & Africa)

The content of the study subjects, includes a total of 13 chapters:

Chapter 1, to describe Electric Machine Design and Analysis Software product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top players of Electric Machine Design and Analysis Software, with revenue, gross margin, and global market share of Electric Machine Design and Analysis Software from 2021 to 2026.

Chapter 3, the Electric Machine Design and Analysis Software competitive situation, revenue, and global market share of top players are analyzed emphatically by

+357 96 030922
info@marketpublishers.com

landscape contrast.

Chapter 4 and 5, to segment the market size by Type and by Application, with consumption value and growth rate by Type, by Application, from 2021 to 2032.

Chapter 6, 7, 8, 9, and 10, to break the market size data at the country level, with revenue and market share for key countries in the world, from 2021 to 2026.and Electric Machine Design and Analysis Software market forecast, by regions, by Type and by Application, with consumption value, from 2027 to 2032.

Chapter 11, market dynamics, drivers, restraints, trends, Porters Five Forces analysis.

Chapter 12, the key raw materials and key suppliers, and industry chain of Electric Machine Design and Analysis Software.

Chapter 13, to describe Electric Machine Design and Analysis Software research findings and conclusion.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

2 COMPANY PROFILES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

3 MARKET COMPETITION, BY PLAYERS

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Electric Machine Design and Analysis Software Market 2026 by Company, Regions, Type and Application, Forecast to 2032

Product link: https://marketpublishers.com/r/GE2C684E5566EN.html

Price: US$ 3,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GE2C684E5566EN.html