# Aircraft Electrical Systems Market by Solution (Power Generation, Power Distribution, Power Conversion, Power Storage, Power Management, Power Drives), Application (Propulsion & Powertrain, Flight Control & Actuation, Avionics & Mission Systems, Cabin & Passenger Systems, Environmental Control Systems, Aircraft Utilities & Support Systems), Aircraft Type (Commercial Aviation, Business & General Aviation, Military Aviation, Advanced Air Mobility (AAM), Propulsion Technology, Point of Sale, and Region - Global Forecast to 2030

Market Report | 2025-12-11 | 290 pages | MarketsandMarkets

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**Report description:**

The aircraft electrical systems market is projected to reach USD 110.40 billion by 2030, growing from USD 94.06 billion in 2025, at a CAGR of 3.3% during the forecast period. The increasing adoption of More-Electric and Hybrid-Electric Aircraft architectures, rising fleet modernization programs, and growing demand for advanced electrical components, such as generators, converters, power distribution units, and electric actuation systems, primarily drive market growth. As aircraft platforms evolve toward higher electrification, manufacturers are investing in intelligent electrical systems that enhance power efficiency, improve system reliability, and support digital health monitoring. Moreover, advancements in high-voltage architectures, lightweight EWIS (Electrical Wiring Interconnection Systems), and electric propulsion technologies are enabling optimized power usage while reducing maintenance and lifecycle costs. Increased regulatory emphasis on sustainability, operational safety, and energy efficiency is further encouraging OEMs and MRO providers to integrate smarter, lighter, and more durable electrical systems

across commercial, military, business aviation, and emerging AAM platforms.

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"By application, the propulsion & powertrain segment is projected to grow at the highest CAGR during the forecast period."
The propulsion & powertrain segment is projected to grow at the highest CAGR during the forecast period, driven by the rising adoption of more electric and hybrid-electric aircraft to improve efficiency and reduce emissions. Airlines and OEMs are increasingly integrating advanced electrical propulsion systems, high-voltage power distribution, and lightweight energy conversion technologies to enhance performance and lower operating costs. Growing regulatory focus on sustainable aviation is accelerating investments in electric propulsion research and development. Additionally, the increasing demand for innovative powertrain architectures to support next-generation aircraft is further propelling segment growth.

"By point of sale, the OEM segment is projected to grow at a higher CAGR than the aftermarket segment during the forecast period."
The OEM segment is projected to record higher growth than the aftermarket segment during the forecast period, driven by strong aircraft production rates and substantial order backlogs from major manufacturers, including Airbus, Boeing, Embraer, and COMAC. Additionally, the continuous development of next-generation aircraft platforms with advanced propulsion and hybrid-electric configurations is accelerating the need for more compact, lightweight, and efficient thermal management systems. Another significant factor driving growth is the increasing integration of additive manufacturing and high-performance materials during aircraft assembly, which enables improved thermal efficiency, reduced system weight, and enhanced design flexibility. Unlike aftermarket replacements, OEMs demand benefits from multi-year production contracts and long-term supply partnerships, where key suppliers are embedded in aircraft programs for extended lifecycles.

"Asia Pacific is projected to grow at the highest rate during the forecast period."
Asia Pacific is projected to register the highest growth rate in the aircraft electrical systems market through 2030, supported by rapid fleet expansion, strong economic growth, and increasing investments in domestic aerospace manufacturing. Countries such as China, India, and Japan are leading regional growth through large-scale commercial aircraft acquisitions and indigenous aircraft development programs. Rising air passenger traffic and the growing presence of regional airlines are also fueling the growth of the region.
On the defense side, regional modernization programs in India, South Korea, and Japan are boosting procurement of advanced fighter aircraft, transport planes, and UAVs equipped with high-efficiency thermal management systems. Furthermore, emerging nations such as Indonesia, Malaysia, and the Philippines are expanding their MRO infrastructure. These factors are positioning Asia Pacific as the fastest-growing market, driven by sustained OEM output, growing defense procurement, and increased focus on fleet efficiency across commercial and military aviation sectors.
The breakdown of profiles for primary participants in the aircraft electrical systems market is provided below:

- By Company Type: Tier 1 - 35%, Tier 2 - 45%, and Tier 3 - 20%
- By Designation: C-Level - 35%, Director-Level - 25%, and Others - 40%
- By Region: North America - 25%, Europe - 15%, Asia Pacific - 45%, Middle East - 10%  Rest of the World (RoW) - 5%

Research Coverage:
This market study covers the aircraft electrical systems market across various segments and subsegments. It aims to estimate the size and growth potential of this market across different parts and regions. This study also includes an in-depth competitive analysis of the key players in the market, their company profiles, key observations related to their products and business offerings, recent developments, and key market strategies they adopted.
Reasons to Buy this Report:
The report will help the market leader/new entrants with information on the closest approximations of the revenue numbers for

the overall aircraft electrical systems market. It will also help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report will also help stakeholders understand the market pulse and will provide information on key market drivers, restraints, challenges, and opportunities.
The report provides insights into the following pointers:
-□Market Drivers [Adoption of More Electric and All-Electric Aircraft (MEA and AEA) Architectures], Restraints (High development, certification, and lifecycle costs), Opportunities (Growing adoption of hybrid-electric and electric propulsion systems), Challenges (Legacy architecture integration and platform compatibility)

-□Market Penetration: Comprehensive information on aircraft electrical systems offered by the top players in the market

-□Product Development/Innovation: Detailed insights into upcoming technologies, research & development activities, and product launches in the aircraft electrical systems market

-□Market Development: Comprehensive information about lucrative markets across varied regions

-□Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the aircraft electrical systems market

-□Competitive Assessment: In-depth assessment of market share, growth strategies, products, and manufacturing capabilities of leading players in the aircraft electrical systems market

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