

# **Electric & Hybrid Aircraft Market Forecasts to 2034 – Global Analysis By Platform (Fixed-Wing and Rotary-Wing), Propulsion Type, Power Source, Component, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Electric & Hybrid Aircraft Market is accounted for \$13.7 billion in 2026 and is expected to reach \$75.0 billion by 2034, growing at a CAGR of 20.1% during the forecast period. Electric and hybrid aircraft are advanced aviation platforms that utilize electric propulsion systems, either fully or in combination with conventional fuel-based engines, to enable cleaner, quieter, and more efficient flight. These aircraft integrate high-energy batteries, electric motors, power electronics, and energy management systems to reduce fuel consumption, carbon emissions, and operating costs. Hybrid configurations balance electric and combustion power to extend range and reliability. Overall, electric and hybrid aircraft represent a transformative shift toward sustainable aviation, supporting environmental goals while enhancing performance, safety, and economic efficiency across commercial, military, and urban air mobility applications.

### **Market Dynamics:**

Driver:

Global push for sustainable aviation and decarbonisation

Stringent environmental regulations and emission reduction targets set by international bodies and governments are compelling manufacturers to innovate. Airlines and operators are seeking to future-proof their fleets against rising fuel costs and carbon taxes. The development of electric aircraft aligns with the broader goal of achieving net-

zero emissions, driving significant investment in research and development. This shift is not only an environmental imperative but also a strategic economic move to ensure long-term viability and public acceptance of air travel in an increasingly eco-conscious world.

#### Restraint:

##### Limitations in battery energy density and technology

The energy density of existing lithium-ion batteries is substantially lower than jet fuel, limiting the range, payload, and endurance of electric planes. This technological bottleneck restricts viable applications to short-haul flights and small aircraft for the foreseeable future. Additionally, battery weight, charging infrastructure requirements, and concerns about lifecycle and thermal management pose considerable engineering challenges. Until breakthroughs in solid-state batteries or alternative power sources like hydrogen fuel cells become commercially viable, the market's expansion will be constrained by these fundamental performance limitations.

#### Opportunity:

##### Rise of Urban Air Mobility (UAM) and eVTOL aircraft

eVTOL (electric Vertical Takeoff and Landing) vehicles are being designed to alleviate urban congestion by providing air taxi services for passengers and cargo. This new mode of transportation leverages the quiet operation and zero-emission benefits of electric propulsion, making it socially acceptable for densely populated areas. Significant investments from both aerospace giants and startups are accelerating the development of these aircraft, alongside the necessary vertiport infrastructure and air traffic management systems. This segment represents the most immediate and commercially viable opportunity for electric propulsion in aviation.

#### Threat:

##### Infrastructure and regulatory gaps

Airports currently lack the charging stations, battery-swapping facilities, and high-voltage power grids required to service these aircraft. Furthermore, aviation authorities are still developing comprehensive certification standards for novel propulsion systems and autonomous flight controls. This regulatory uncertainty can delay product launches

and increase development costs. Without synchronized investment in ground infrastructure and the timely establishment of global safety standards, the market risks fragmentation and slower-than-anticipated adoption rates.

### **Covid-19 Impact:**

The COVID-19 pandemic had a dual impact on the electric aircraft market. Initially, it severely disrupted supply chains, delayed flight-testing programs, and diverted focus toward immediate survival, slowing down R&D momentum. However, the subsequent recovery accelerated the focus on sustainable travel, with governments including green aviation initiatives in economic stimulus packages. The downturn in air travel also provided a unique opportunity for incumbent manufacturers to rethink strategies and for new entrants to advance designs with less pressure. The pandemic underscored the need for resilient, cost-efficient, and environmentally friendly aviation, ultimately reinforcing the long-term strategic importance of electric propulsion technologies.

The hybrid-electric segment is expected to be the largest during the forecast period

The hybrid-electric segment is expected to account for the largest market share during the forecast period, as it offers a pragmatic bridge between conventional and all-electric flight. By combining a traditional combustion engine with an electric propulsion system, hybrid architectures overcome the current range limitations of pure battery power while still delivering significant fuel savings and emission reductions.

The advanced air mobility (AAM) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the advanced air mobility (AAM) segment is predicted to witness the highest growth rate, due to the development of air taxi services and regional electric aviation. AAM benefits from converging technologies in autonomy, electric propulsion, and lightweight materials. Strong investor interest and strategic partnerships between manufacturers and infrastructure developers are accelerating commercialization. As regulatory frameworks mature and public acceptance grows, AAM is expected to become a mainstream transportation mode, offering rapid, on-demand mobility solutions that bypass traditional ground congestion.

### **Region with largest share:**

During the forecast period, the Europe region is expected to hold the largest market

share, driven by ambitious climate goals and stringent emission reduction targets set by the European Union, positioning the region as a sustainability leader in aviation. Strong government funding supports research and development of green aircraft technologies through initiatives like the European Green Deal. The presence of established aerospace manufacturers and a dense network of short-haul routes create ideal conditions for hybrid-electric regional aircraft adoption.

### **Region with highest CAGR:**

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by rapid urbanization, severe air pollution in megacities, and strong government support for advanced air mobility. Countries like China, Japan, and South Korea are investing heavily in electric aviation as a strategic priority to lead in future transportation technologies. The region's high population density and the prevalence of traffic congestion in cities create a compelling use case for UAM and eVTOL services.

### **Key players in the market**

Some of the key players in Electric & Hybrid Aircraft Market include Airbus SE, Boeing Company, Embraer S.A., Eve Holding, Inc., Textron Aviation Inc., Joby Aviation, Siemens Energy, Lilium N.V., Vertical Aerospace, Beta Technologies, Safran SA, Heart Aerospace, magniX, Rolls-Royce plc, and Honeywell International Inc.

### **Key Developments:**

In February 2026, Boeing and Sun PhuQuoc Airways announced the new Vietnam-based carrier has ordered up to 40 787 Dreamliner jets to serve as the backbone of its widebody fleet. The airline will leverage the ultra-efficient, long-range 787 Dreamliner to connect international travelers to its Vietnam hub at Phu Quoc International Airport.

In February 2026, Honeywell announced that it has entered into an amended agreement to acquire Johnson Matthey's Catalyst Technologies business segment, which adjusts the total consideration from \$1.8 billion to \$1.325 billion and extends the long stop date to July 21, 2026. In the event that any of the regulatory approvals are not satisfied by the long stop date, the long stop date may be extended to August 21, 2026, if certain conditions are met.

### **Platforms Covered:**

Fixed-Wing

Rotary-Wing

Propulsion Types Covered:

All-Electric

Hybrid-Electric

Power Sources Covered:

Batteries

Fuel Cells

Solar Cells

Supercapacitors

Components Covered:

Electric Motors

Generators

Power Electronics

Energy Storage Systems

Power Distribution Systems

Thermal Management Systems

Wiring and Cabling

**Applications Covered:**

Commercial Aviation

Military Aviation

General Aviation

Advanced Air Mobility (AAM)

Cargo and Logistics

**End Users Covered:**

Original Equipment Manufacturers (OEMs)

Aftermarket

Government and Defense

Commercial Operators

Other End Users

**Regions Covered:**

North America

    United States

    Canada

    Mexico

Europe

    United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

**What our report offers:**

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

**Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

**Company Profiling**

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

**Regional Segmentation**

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

**Competitive Benchmarking**

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances



## Contents

### **1 EXECUTIVE SUMMARY**

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

### **2 RESEARCH FRAMEWORK**

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
  - 2.4.1 Data Collection (Primary and Secondary)
  - 2.4.2 Data Modeling and Estimation Techniques
  - 2.4.3 Data Validation and Triangulation
  - 2.4.4 Analytical and Forecasting Approach

### **3 MARKET DYNAMICS AND TREND ANALYSIS**

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

### **4 COMPETITIVE AND STRATEGIC ASSESSMENT**

- 4.1 Porter's Five Forces Analysis
  - 4.1.1 Supplier Bargaining Power
  - 4.1.2 Buyer Bargaining Power
  - 4.1.3 Threat of Substitutes
  - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

## **5 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY PLATFORM**

- 5.1 Fixed-Wing
  - 5.1.1 Regional Transport Aircraft
  - 5.1.2 Business Jets & Light Aircraft
  - 5.1.3 Urban Air Mobility (UAM)
- 5.2 Rotary-Wing
  - 5.2.1 Helicopters
  - 5.2.2 eVTOL

## **6 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY PROPULSION TYPE**

- 6.1 All-Electric
- 6.2 Hybrid-Electric
  - 6.2.1 Series Hybrid
  - 6.2.2 Parallel Hybrid

## **7 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY POWER SOURCE**

- 7.1 Batteries
  - 7.1.1 Lithium-Ion
  - 7.1.2 Solid-State
- 7.2 Fuel Cells
- 7.3 Solar Cells
- 7.4 Supercapacitors

## **8 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY COMPONENT**

- 8.1 Electric Motors
- 8.2 Generators
- 8.3 Power Electronics
- 8.4 Energy Storage Systems
- 8.5 Power Distribution Systems
- 8.6 Thermal Management Systems
- 8.7 Wiring and Cabling

## **9 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY APPLICATION**

- 9.1 Commercial Aviation
- 9.2 Military Aviation
- 9.3 General Aviation
- 9.4 Advanced Air Mobility (AAM)
- 9.5 Cargo and Logistics

## **10 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY END USER**

- 10.1 Original Equipment Manufacturers (OEMs)
- 10.2 Aftermarket
- 10.3 Government and Defense
- 10.4 Commercial Operators
- 10.5 Other End Users

## **11 GLOBAL ELECTRIC & HYBRID AIRCRAFT MARKET, BY GEOGRAPHY**

- 11.1 North America
  - 11.1.1 United States
  - 11.1.2 Canada
  - 11.1.3 Mexico
- 11.2 Europe
  - 11.2.1 United Kingdom
  - 11.2.2 Germany
  - 11.2.3 France
  - 11.2.4 Italy
  - 11.2.5 Spain
  - 11.2.6 Netherlands
  - 11.2.7 Belgium
  - 11.2.8 Sweden
  - 11.2.9 Switzerland
  - 11.2.10 Poland
  - 11.2.11 Rest of Europe
- 11.3 Asia Pacific
  - 11.3.1 China
  - 11.3.2 Japan
  - 11.3.3 India

- 11.3.4 South Korea
- 11.3.5 Australia
- 11.3.6 Indonesia
- 11.3.7 Thailand
- 11.3.8 Malaysia
- 11.3.9 Singapore
- 11.3.10 Vietnam
- 11.3.11 Rest of Asia Pacific
- 11.4 South America
  - 11.4.1 Brazil
  - 11.4.2 Argentina
  - 11.4.3 Colombia
  - 11.4.4 Chile
  - 11.4.5 Peru
  - 11.4.6 Rest of South America
- 11.5 Rest of the World (RoW)
  - 11.5.1 Middle East
    - 11.5.1.1 Saudi Arabia
    - 11.5.1.2 United Arab Emirates
    - 11.5.1.3 Qatar
    - 11.5.1.4 Israel
    - 11.5.1.5 Rest of Middle East
  - 11.5.2 Africa
    - 11.5.2.1 South Africa
    - 11.5.2.2 Egypt
    - 11.5.2.3 Morocco
    - 11.5.2.4 Rest of Africa

## **12 STRATEGIC MARKET INTELLIGENCE**

- 12.1 Industry Value Network and Supply Chain Assessment
- 12.2 White-Space and Opportunity Mapping
- 12.3 Product Evolution and Market Life Cycle Analysis
- 12.4 Channel, Distributor, and Go-to-Market Assessment

## **13 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES**

- 13.1 Mergers and Acquisitions
- 13.2 Partnerships, Alliances, and Joint Ventures

- 13.3 New Product Launches and Certifications
- 13.4 Capacity Expansion and Investments
- 13.5 Other Strategic Initiatives

## **14 COMPANY PROFILES**

- 14.1 Airbus SE
- 14.2 Boeing Company
- 14.3 Embraer S.A.
- 14.4 Eve Holding, Inc.
- 14.5 Textron Aviation Inc.
- 14.6 Joby Aviation
- 14.7 Siemens Energy
- 14.8 Lilium N.V.
- 14.9 Vertical Aerospace
- 14.10 Beta Technologies
- 14.11 Safran SA
- 14.12 Heart Aerospace
- 14.13 magniX
- 14.14 Rolls-Royce plc
- 14.15 Honeywell International Inc.

## List Of Tables

### LIST OF TABLES

Table 1 Global Electric & Hybrid Aircraft Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Electric & Hybrid Aircraft Market Outlook, By Platform (2023-2034) (\$MN)

Table 3 Global Electric & Hybrid Aircraft Market Outlook, By Fixed-Wing (2023-2034) (\$MN)

Table 4 Global Electric & Hybrid Aircraft Market Outlook, By Regional Transport Aircraft (2023-2034) (\$MN)

Table 5 Global Electric & Hybrid Aircraft Market Outlook, By Business Jets & Light Aircraft (2023-2034) (\$MN)

Table 6 Global Electric & Hybrid Aircraft Market Outlook, By Urban Air Mobility (UAM) (2023-2034) (\$MN)

Table 7 Global Electric & Hybrid Aircraft Market Outlook, By Rotary-Wing (2023-2034) (\$MN)

Table 8 Global Electric & Hybrid Aircraft Market Outlook, By Helicopters (2023-2034) (\$MN)

Table 9 Global Electric & Hybrid Aircraft Market Outlook, By eVTOL (2023-2034) (\$MN)

Table 10 Global Electric & Hybrid Aircraft Market Outlook, By Propulsion Type (2023-2034) (\$MN)

Table 11 Global Electric & Hybrid Aircraft Market Outlook, By All-Electric (2023-2034) (\$MN)

Table 12 Global Electric & Hybrid Aircraft Market Outlook, By Hybrid-Electric (2023-2034) (\$MN)

Table 13 Global Electric & Hybrid Aircraft Market Outlook, By Series Hybrid (2023-2034) (\$MN)

Table 14 Global Electric & Hybrid Aircraft Market Outlook, By Parallel Hybrid (2023-2034) (\$MN)

Table 15 Global Electric & Hybrid Aircraft Market Outlook, By Power Source (2023-2034) (\$MN)

Table 16 Global Electric & Hybrid Aircraft Market Outlook, By Batteries (2023-2034) (\$MN)

Table 17 Global Electric & Hybrid Aircraft Market Outlook, By Lithium-Ion (2023-2034) (\$MN)

Table 18 Global Electric & Hybrid Aircraft Market Outlook, By Solid-State (2023-2034) (\$MN)

Table 19 Global Electric & Hybrid Aircraft Market Outlook, By Fuel Cells (2023-2034)

(\$MN)

Table 20 Global Electric & Hybrid Aircraft Market Outlook, By Solar Cells (2023-2034)

(\$MN)

Table 21 Global Electric & Hybrid Aircraft Market Outlook, By Supercapacitors

(2023-2034) (\$MN)

Table 22 Global Electric & Hybrid Aircraft Market Outlook, By Component (2023-2034)

(\$MN)

Table 23 Global Electric & Hybrid Aircraft Market Outlook, By Electric Motors

(2023-2034) (\$MN)

Table 24 Global Electric & Hybrid Aircraft Market Outlook, By Generators (2023-2034)

(\$MN)

Table 25 Global Electric & Hybrid Aircraft Market Outlook, By Power Electronics

(2023-2034) (\$MN)

Table 26 Global Electric & Hybrid Aircraft Market Outlook, By Energy Storage Systems

(2023-2034) (\$MN)

Table 27 Global Electric & Hybrid Aircraft Market Outlook, By Power Distribution

Systems (2023-2034) (\$MN)

Table 28 Global Electric & Hybrid Aircraft Market Outlook, By Thermal Management

Systems (2023-2034) (\$MN)

Table 29 Global Electric & Hybrid Aircraft Market Outlook, By Wiring and Cabling

(2023-2034) (\$MN)

Table 30 Global Electric & Hybrid Aircraft Market Outlook, By Application (2023-2034)

(\$MN)

Table 31 Global Electric & Hybrid Aircraft Market Outlook, By Commercial Aviation

(2023-2034) (\$MN)

Table 32 Global Electric & Hybrid Aircraft Market Outlook, By Military Aviation

(2023-2034) (\$MN)

Table 33 Global Electric & Hybrid Aircraft Market Outlook, By General Aviation

(2023-2034) (\$MN)

Table 34 Global Electric & Hybrid Aircraft Market Outlook, By Advanced Air Mobility

(AAM) (2023-2034) (\$MN)

Table 35 Global Electric & Hybrid Aircraft Market Outlook, By Cargo and Logistics

(2023-2034) (\$MN)

Table 36 Global Electric & Hybrid Aircraft Market Outlook, By End User (2023-2034)

(\$MN)

Table 37 Global Electric & Hybrid Aircraft Market Outlook, By Original Equipment

Manufacturers (OEMs) (2023-2034) (\$MN)

Table 38 Global Electric & Hybrid Aircraft Market Outlook, By Aftermarket (2023-2034)

(\$MN)

Table 39 Global Electric & Hybrid Aircraft Market Outlook, By Government and Defense (2023-2034) (\$MN)

Table 40 Global Electric & Hybrid Aircraft Market Outlook, By Commercial Operators (2023-2034) (\$MN)

Table 41 Global Electric & Hybrid Aircraft Market Outlook, By Other End Users (2023-2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) are also represented in the same manner as above.

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