Electric Propulsion Satellites Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Space Economy, Satellites & Propulsion (Aerospace & Defense)
> **Source:** https://www.mordorintelligence.com/industry-reports/electric-propulsion-satellites-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 14.56 billion
Projected Forecast (2031)	USD 14.56 billion
Growth Rate (CAGR)	21.83 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2019 - 2031 |
Market Size (2026) | USD 14.56 Billion |
Market Size (2031) | USD 39.09 Billion |
Growth Rate (2026 - 2031) | 21.83 % |
Fastest Growing Market | Asia-Pacific |

Largest Market | North America |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Electric Propulsion Satellites Market Analysis by Mordor Intelligence

The electric propulsion satellites market size was valued at USD 13.03 billion in 2025 and is projected to grow from USD 14.56 billion in 2026 to USD 39.09 billion by 2031, at a CAGR of 21.83% during 2026 to 2031. The global market for electric propulsion satellites is growing due to advancements in propulsion technology and the transition from specialized subsystems to more integrated design features in commercial and government satellite projects. This shift is largely driven by the rise of large satellite constellations, which require dependable solutions for orbit raising, station-keeping, maneuvering, collision avoidance, and end-of-life disposal. The growing adoption of high-volume manufacturing methods is moving demand away from the traditional aerospace low-volume, customized approach toward mass production. For instance, SpaceX's Starlink satellites are projected to exceed 10,000 units by 2026. Similarly, Amazon's Project Kuiper deployed over 200 satellites by early 2026.
The electric propulsion satellites market benefits from economic advantages, including reduced spacecraft mass that enhances launch efficiency and lowers the cost of placing usable payloads into orbit. Additionally, regulations addressing orbital debris management and satellite disposal are driving demand for maneuverable propulsion systems capable of performing deorbit operations and expanding opportunities for low- and medium-power propulsion systems, while also emphasizing the importance of flight heritage and successful qualification processes among suppliers.

Key Report Takeaways* By propulsion technology, Hall-effect thrusters accounted for 48.20% of revenue in 2025, while HEMPT is forecast to expand at a 22.71% CAGR through 2031.
* By satellite mass, medium satellites (weighing 500 kg to less than 2,000 kg) accounted for 52.45% of revenue in 2025, while small satellites (under 500 kg) are projected to grow at a 22.83% CAGR through 2031.
* By application, communication accounted for 55.32% of the electric propulsion satellites market size in 2025, while earth observation and remote sensing are forecast to expand at 23.91% CAGR through 2031.
* By end user, the commercial segment held 55.12% of the electric propulsion satellites market share in 2025 and is projected to grow at a 24.52% CAGR through 2031.
* By geography, North America held 53.77% of the electric propulsion satellites market share in 2025, while Asia-Pacific is forecast to grow at 24.63% CAGR through 2031.

Key Market Trends

Market Trends and InsightsDrivers Impact Analysis of Electric Propulsion Satellites Market*RIVER | (~) % IMPACT ON CAGR FORECAST | GEOGRAPHIC RELEVANCE | IMPACT TIMELINE |
Rapid growth of LEO broadband mega-constellations | 5.20% | Global, with highest throughput in North America and emerging Asia-Pacific constellation builds | Short term (≤ 2 years) |
Rising demand for high-throughput data services | 4.10% | Global, with Asia-Pacific and Sub-Saharan Africa showing the strongest new subscriber demand | Short term (≤ 2 years) |
Launch cost savings via lighter all-electric satellites | 3.80% | Global, most p

ronounced on Falcon 9 and Ariane 6 rideshare economics | Medium term (2-4 years) |
Government deep-space exploration initiatives | 2.90% | North America, Europe, and Asia-Pacific | Long term (≥ 4 years) |
Adoption of iodine and krypton propellants | 2.30% | Global, with Europe leading HEMPT and krypton work, and North America and China advancing iodine | Medium term (2-4 years) |
Electric propulsion-enabled on-orbit servicing and debris removal | 1.80% | Global, with early commercial activity in LEO and GEO | Medium term (2-4 years) |
Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The electric propulsion satellites market is moderately fragmented, with large aerospace primes, specialized propulsion firms, and vertically integrated satellite manufacturers competing for position. Heritage still matters because flight qualification, insurer comfort, and customer trust are hard to replace in mission-critical spacecraft subsystems. At the same time, the electric propulsion satellites market is no longer defined solely by historical incumbents, as specialist suppliers now compete on lead time, production scale, and fuel flexibility as much as on technical specifications. This has created a two-layer field in which legacy firms retain credibility advantages while newer companies pursue faster output, smaller form factors, and lower-cost architectures. The electric propulsion satellites market, therefore, rewards both proven reliability and operational responsiveness, which is why competition remains active across several tiers rather than consolidating around a single leader.

The recent strategy has been shaped by product launches, manufacturing localization, and moves toward tighter supply chain control. Rocket Lab introduced the Gauss Hall thruster in April 2026, featuring heaterless cathode technology, magnetic shielding, and a production target of more than 200 units per year, clearly aimed at high-volume constellation demand. Safran’s US manufacturing expansion is another clear example, because it aligns propulsion output with North American customer preferences for local sourcing and faster delivery. Enpulsion’s Nexus platform also shows how smaller, focused players are trying to secure space in the electric propulsion satellites market by targeting compact spacecraft that need tank-free solid propellant solutions.

White space in the electric propulsion satellites market is most visible where customers want both high-volume output and genuine freedom from xenon dependence, because few suppliers yet meet both conditions at scale. This is why product development is converging on lifetime, power-processing efficiency, and broader propellant compatibility rather than on thrust alone. HEMPT-related work in Europe and iodine-related programs from several developers show that the electric propulsion satellites market is actively seeking architectures that reduce erosion, ease storage, or lower fuel exposure without creating a new qualification burden. Compliance also shapes competition, as FCC disposal rules and broader international coordination requirements raise the commercial value of documented heritage and reliable testing. The electric propulsion satellites market is therefore competitive. However, it still gives companies an edge that combines qualification depth, production credibility, and a fuel strategy aligned with the next generation of constellation economics.

Electric Propulsion Satellites Industry Leaders* Airbus SE

* Northrop Grumman Corporation

* Safran SA

* Thales Alenia Space

* The Boeing Company

* *Disclaimer: Major Players sorted in no particular order

Component Component 3 Scope Of The Report Bottom

Global Electric Propulsion Satellites Market Report ScopeThe electric propulsion satellites market comprises satellites equipped with electric propulsion systems that utilize electric power to generate thrust. These systems are used for functions such as orbit raising, station keeping, attitude control, collision avoidance, and end-of-life satellite disposal. The analysis covers operational and commercially deployed electric propulsion technologies and related satellite programs. The study excludes satellites relying solely on chemical propulsion systems, sounding rockets, high-altitude platforms, launch vehicle propulsion systems, and experimental propulsion technologies without operational deployment.

The electric propulsion satellites market is segmented by propulsion technology, satellite mass, application, and end user. By propulsion technology, the market includes Hall-effect thrusters, gridded ion thrusters, high-efficiency multi-stage plasma (HEMPT) thrusters, pulsed plasma thrusters (PPT), and other propulsion technologies. Based on satellite mass, the market is categorized into small satellites (less than 500 kg), medium satellites (500 kg to less than 2,000 kg), and large satellites (more than 2,000 kg). Based on application, the market covers communication, Earth observation and remote sensing, navigation and positioning, science and exploration, and technology demonstration missions. By end user, the market is divided into commercial and government and defense sectors. The report also covers market sizes and forecasts for the electric propulsion satellites market in major countries worldwide. For each segment, the market size is provided in terms of value (USD).

By Propulsion TechnologyHall-Effect Thrusters |
Gridded Ion Thrusters |
High-Efficiency Multi-Stage Plasma Thrusters (HEMPT) |
Pulsed Plasma Thrusters (PPT) |
Others |

Segmentation Accordion Item

By GeographyNorth America | United States |
 | Canada |
 | Mexico |
Europe | United Kingdom |
 | France |
 | Germany |
 | Italy |
 | Russia |
 | Rest of Europe |
Asia-Pacific | China |
 | India |
 | Japan |
 | South Korea |
 | Australia |
 | Rest of Asia-Pacific |
South America | Brazil |
 | Argentina |
 | Rest of South America |
 | |
Middle East and Africa | Middle East | Saudi Arabia |
 | | United Arab Emirates |
 | | Turkey |

	Rest of Middle East
Africa	South Africa
	Nigeria
	Rest of Africa

Frequently Asked Questions

What is the projected value of the electric propulsion satellites space by 2031?

The electric propulsion satellites market is forecast to reach USD 39.09 billion by 2031, rising from USD 14.56 billion in 2026 at a 21.83% CAGR.

Which propulsion technology currently leads demand?

Hall-effect thrusters led with 48.20% of revenue in 2025 because they combine strong flight heritage, practical thrust density, and broad suitability across commercial and government missions.

Which application is expanding the fastest through 2031?

Earth observation and remote sensing is projected to grow at 23.91% CAGR, supported by VLEO drag compensation, hyperspectral imaging, SAR missions, and tighter orbital maneuver needs.

Why are operators moving toward alternative propellants such as krypton, argon, and iodine?

Operators want to reduce exposure to xenon supply limits, lower recurring fuel cost, and simplify storage, especially for smaller spacecraft and high volume constellation deployments.

What is the main regulatory factor affecting satellite propulsion adoption?

Debris mitigation rules, especially the FCC five year post mission disposal requirement for new LEO licenses, are making reliable onboard propulsion more important for licensing and qualification.