

Electric Ship Market Forecasts to 2032 – Global Analysis By System (Energy Storage Systems, Power Conversion Systems: Generators, Conversion Devices, Power Distribution Systems, Power Generation Systems, and Propulsion Systems), Ship Type, Power Type, Power Range, Operation, and By Geography

<https://marketpublishers.com/r/EBDEBA24A020EN.html>

Date: November 2025

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: EBDEBA24A020EN

Abstracts

According to Statistics MRC, the Global Electric Ship Market is accounted for \$4.9 billion in 2025 and is expected to reach \$23.2 billion by 2032, growing at a CAGR of 24.6% during the forecast period. Electric ship market comprises developers that create fully electric and hybrid-electric systems for powering ships, along with batteries, power electronics, and charging stations for boats like ferries, workboats, and short-distance commercial ships. It helps make shipping more environmentally friendly by using quieter and cleaner methods, using less fuel, and meeting emission rules better due to better energy-storage technologies, improved ship designs, and increasing interest from ports, operators, and coastal transport systems.

Market Dynamics:

Driver:

Stringent Environmental Regulations

International Maritime Organization (IMO) regulations, such as the Carbon Intensity Indicator (CII), are compelling shipowners to drastically reduce emissions. This regulatory pressure makes electric and hybrid propulsion systems not just an alternative

but a compliance necessity for new builds and retrofits. Consequently, naval architects and manufacturers are increasingly prioritizing zero-emission technologies to meet these stringent global standards and avoid financial penalties, thereby accelerating market adoption.

Restraint:

High Initial Investment

The substantial upfront cost of electric propulsion systems presents a significant barrier to widespread adoption. This includes the expense of advanced batteries, electric motors, power conversion devices, and integrated software, which collectively exceed the cost of conventional marine diesel systems. Moreover, the required shore-side charging infrastructure demands further port investment. This high capital expenditure can deter shipowners, especially those with older fleets, by extending the return on investment timeline and challenging the financial viability of a transition to electric power.

Opportunity:

Growth in Short-Sea Shipping

The expansion of short-sea shipping and inland waterway transport offers a substantial growth avenue for electric vessels. These routes are ideally suited for electrification due to their predictable schedules, shorter distances, and proximity to port charging infrastructure. Ferries, tugboats, and coastal cargo vessels can leverage battery power effectively, eliminating emissions in sensitive port cities and coastal areas. This operational niche allows for the practical demonstration of electric propulsion's benefits, paving the way for broader market acceptance and technological refinement.

Threat:

Competition from Alternative Fuels

The development of alternative low-carbon fuels poses a competitive threat to full electrification. Fuels like green methanol, ammonia, and hydrogen are gaining traction as viable options for decarbonizing deep-sea shipping, a segment where current battery technology is less feasible. Furthermore, the established global fuel distribution network provides a foundational advantage for these drop-in solutions. This competition could

potentially limit the market share of all-electric systems to shorter routes, dividing investment and slowing the overall pace of industry-wide electrification.

Covid-19 Impact:

The pandemic initially disrupted the electric ship market through supply chain bottlenecks and project delays, stalling new orders and construction. However, the crisis also acted as a catalyst for long-term growth. It intensified the focus on supply chain resilience and sustainable logistics, aligning with environmental goals. As the global economy recovered, pent-up demand and government stimulus packages promoting green infrastructure accelerated investment in electric ferries and port electrification, ultimately bolstering market momentum post-crisis.

The energy storage systems (ESS) segment is expected to be the largest during the forecast period

The energy storage systems (ESS) segment is expected to account for the largest market share during the forecast period. Its dominance is driven by the critical need for efficient energy storage to power vessels entirely on electricity. Continuous advancements in lithium-ion technology, which enhance energy density and reduce costs, are key factors. Moreover, the segment's growth is inextricably linked to the expansion of the entire electric ship market, as every vessel requires a robust and reliable ESS as its fundamental power source.

The commercial vessels segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the commercial vessels segment is predicted to witness the highest growth rate. Intense pressure from port authorities and the public to reduce emissions and noise pollution in coastal and urban waterways fuels this surge. The operational profiles of these vessels, characterized by regular routes and frequent port calls, make them ideal candidates for electrification. Additionally, the clear economic benefit of lower operational expenses over the vessel's lifecycle provides a compelling financial argument for owners to invest.

Region with largest share:

During the forecast period, the Europe region is expected to hold the largest market share, anchored by the European Union's ambitious Green Deal and stringent regional

regulations that surpass global standards. Furthermore, significant government and private investment in R&D and charging infrastructure, particularly in the Nordic countries, creates a fertile environment for adoption. The presence of major industry players and early, large-scale deployments of electric ferries solidify Europe's position as the current dominant and most mature market for electric ships.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, propelled by massive investments in port modernization and the world's largest shipbuilding industries in China, South Korea, and Japan. The region's extensive coastlines and dense network of short-sea shipping routes present a vast addressable market. Additionally, growing governmental support for clean coastal transportation to combat severe urban air pollution is creating a powerful policy-driven push for the adoption of electric vessel technologies.

Key players in the market

Some of the key players in Electric Ship Market include ABB Ltd., Wärtsilä Corporation, Kongsberg Gruppen ASA, Siemens AG, MAN Energy Solutions SE, Corvus Energy Inc., Leclanché SA, Mitsubishi Heavy Industries, Ltd., Hyundai Heavy Industries Co., Ltd., Samsung Heavy Industries Co., Ltd., Damen Shipyards Group, Vard Holdings Limited, Rolls-Royce plc, Schottel GmbH, Cavotec SA, and Anglo Belgian Corporation NV.

Key Developments:

In September 2025, Technology group Wärtsilä has been selected to deliver a fully integrated electric propulsion system with waterjets for two new high-speed catamaran ferries being built for Danish ferry operator Molslinjen. The battery-electric vessels are being built at the Incat shipyard in Tasmania, with Wärtsilä supplying the integrated electric propulsion system, the DC power conversion system, its energy management and automation systems, eight electric propulsion motors and waterjets, as well as the Wärtsilä ProTouch propulsion control system for smooth and efficient sailing.

In January 2025, ABB, together with Hyundai Heavy Industries, announced a collaboration to develop high-capacity DC grid systems for large electric ships, enhancing power infrastructure for ship electrification.

Systems Covered:

- Energy Storage Systems (ESS)
- Power Conversion Systems (PCS)
- Power Generation Systems
- Propulsion Systems

Ship Types Covered:

- Commercial Vessels
- Defense Vessels
- Special Purpose Vessels

Power Types Covered:

- Fully Electric
- Hybrid Electric

Power Ranges Covered:

- Low Power (Less than 1 MW)
- Medium Power (1 MW to 5 MW)
- High Power (5 MW to 20 MW)
- Very High Power (Above 20 MW)

Operations Covered:

Manned

Autonomous / Remotely Operated

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & 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 2024, 2025, 2026, 2028, and 2032
- 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

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Emerging Markets
- 3.7 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL ELECTRIC SHIP MARKET, BY SYSTEM

- 5.1 Introduction
- 5.2 Energy Storage Systems (ESS)
 - 5.2.1 Lithium-ion Batteries
 - 5.2.2 Lead-Acid Batteries
 - 5.2.3 Fuel Cells
 - 5.2.4 Other Energy Storage Systems (ESS)
- 5.3 Power Conversion Systems (PCS)
 - 5.3.1 Generators
 - 5.3.2 Conversion Devices
 - 5.3.3 Power Distribution Systems
- 5.4 Power Generation Systems
 - 5.4.1 Solar Panels
 - 5.4.2 Range Extenders
 - 5.4.3 Other Power Generation Systems
- 5.5 Propulsion Systems
 - 5.5.1 Electric Motors
 - 5.5.2 Propellers & Thrusters
 - 5.5.3 Drive Systems

6 GLOBAL ELECTRIC SHIP MARKET, BY SHIP TYPE

- 6.1 Introduction
- 6.2 Commercial Vessels
 - 6.2.1 Ferries
 - 6.2.2 Cruise Ships
 - 6.2.3 Container Ships
 - 6.2.4 Bulk Carriers
 - 6.2.5 Tankers
 - 6.2.6 Offshore Support Vessels (OSVs)
 - 6.2.7 Tugs and Barges
- 6.3 Defense Vessels
 - 6.3.1 Destroyers, Frigates, and Corvettes
 - 6.3.2 Submarines
 - 6.3.3 Aircraft Carriers
 - 6.3.4 Patrol Vessels
- 6.4 Special Purpose Vessels
 - 6.4.1 Research Vessels
 - 6.4.2 Survey Vessels
 - 6.4.3 Aquaculture Vessels

7 GLOBAL ELECTRIC SHIP MARKET, BY POWER TYPE

- 7.1 Introduction
- 7.2 Fully Electric
- 7.3 Hybrid Electric
 - 7.3.1 Diesel-Electric
 - 7.3.2 Battery-Diesel Hybrid
 - 7.3.3 Gas-Electric Hybrid

8 GLOBAL ELECTRIC SHIP MARKET, BY POWER RANGE

- 8.1 Introduction
- 8.2 Low Power (Less than 1 MW)
- 8.3 Medium Power (1 MW to 5 MW)
- 8.4 High Power (5 MW to 20 MW)
- 8.5 Very High Power (Above 20 MW)

9 GLOBAL ELECTRIC SHIP MARKET, BY OPERATION

- 9.1 Introduction
- 9.2 Manned
- 9.3 Autonomous / Remotely Operated

10 GLOBAL ELECTRIC SHIP MARKET, BY GEOGRAPHY

- 10.1 Introduction
- 10.2 North America
 - 10.2.1 US
 - 10.2.2 Canada
 - 10.2.3 Mexico
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.2 UK
 - 10.3.3 Italy
 - 10.3.4 France
 - 10.3.5 Spain
 - 10.3.6 Rest of Europe
- 10.4 Asia Pacific

- 10.4.1 Japan
- 10.4.2 China
- 10.4.3 India
- 10.4.4 Australia
- 10.4.5 New Zealand
- 10.4.6 South Korea
- 10.4.7 Rest of Asia Pacific
- 10.5 South America
 - 10.5.1 Argentina
 - 10.5.2 Brazil
 - 10.5.3 Chile
 - 10.5.4 Rest of South America
- 10.6 Middle East & Africa
 - 10.6.1 Saudi Arabia
 - 10.6.2 UAE
 - 10.6.3 Qatar
 - 10.6.4 South Africa
 - 10.6.5 Rest of Middle East & Africa

11 KEY DEVELOPMENTS

- 11.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 11.2 Acquisitions & Mergers
- 11.3 New Product Launch
- 11.4 Expansions
- 11.5 Other Key Strategies

12 COMPANY PROFILING

- 12.1 ABB Ltd.
- 12.2 Wartsila Corporation
- 12.3 Kongsberg Gruppen ASA
- 12.4 Siemens AG
- 12.5 MAN Energy Solutions SE
- 12.6 Corvus Energy Inc.
- 12.7 Leclanché SA
- 12.8 Mitsubishi Heavy Industries, Ltd.
- 12.9 Hyundai Heavy Industries Co., Ltd.
- 12.10 Samsung Heavy Industries Co., Ltd.

- 12.11 Damen Shipyards Group
- 12.12 Vard Holdings Limited
- 12.13 Rolls-Royce plc
- 12.14 Schottel GmbH
- 12.15 Cavotec SA
- 12.16 Anglo Belgian Corporation NV

List Of Tables

LIST OF TABLES

- Table 1 Global Electric Ship Market Outlook, By Region (2024–2032) (\$MN)
- Table 2 Global Electric Ship Market Outlook, By System (2024–2032) (\$MN)
- Table 3 Global Electric Ship Market Outlook, By Energy Storage Systems (ESS) (2024–2032) (\$MN)
- Table 4 Global Electric Ship Market Outlook, By Lithium-ion Batteries (2024–2032) (\$MN)
- Table 5 Global Electric Ship Market Outlook, By Lead-Acid Batteries (2024–2032) (\$MN)
- Table 6 Global Electric Ship Market Outlook, By Fuel Cells (2024–2032) (\$MN)
- Table 7 Global Electric Ship Market Outlook, By Other Energy Storage Systems (ESS) (2024–2032) (\$MN)
- Table 8 Global Electric Ship Market Outlook, By Power Conversion Systems (PCS) (2024–2032) (\$MN)
- Table 9 Global Electric Ship Market Outlook, By Generators (2024–2032) (\$MN)
- Table 10 Global Electric Ship Market Outlook, By Conversion Devices (2024–2032) (\$MN)
- Table 11 Global Electric Ship Market Outlook, By Power Distribution Systems (2024–2032) (\$MN)
- Table 12 Global Electric Ship Market Outlook, By Power Generation Systems (2024–2032) (\$MN)
- Table 13 Global Electric Ship Market Outlook, By Solar Panels (2024–2032) (\$MN)
- Table 14 Global Electric Ship Market Outlook, By Range Extenders (2024–2032) (\$MN)
- Table 15 Global Electric Ship Market Outlook, By Other Power Generation Systems (2024–2032) (\$MN)
- Table 16 Global Electric Ship Market Outlook, By Propulsion Systems (2024–2032) (\$MN)
- Table 17 Global Electric Ship Market Outlook, By Electric Motors (2024–2032) (\$MN)
- Table 18 Global Electric Ship Market Outlook, By Propellers & Thrusters (2024–2032) (\$MN)
- Table 19 Global Electric Ship Market Outlook, By Drive Systems (2024–2032) (\$MN)
- Table 20 Global Electric Ship Market Outlook, By Ship Type (2024–2032) (\$MN)
- Table 21 Global Electric Ship Market Outlook, By Commercial Vessels (2024–2032) (\$MN)
- Table 22 Global Electric Ship Market Outlook, By Ferries (2024–2032) (\$MN)
- Table 23 Global Electric Ship Market Outlook, By Cruise Ships (2024–2032) (\$MN)

- Table 24 Global Electric Ship Market Outlook, By Container Ships (2024–2032) (\$MN)
- Table 25 Global Electric Ship Market Outlook, By Bulk Carriers (2024–2032) (\$MN)
- Table 26 Global Electric Ship Market Outlook, By Tankers (2024–2032) (\$MN)
- Table 27 Global Electric Ship Market Outlook, By Offshore Support Vessels (OSVs) (2024–2032) (\$MN)
- Table 28 Global Electric Ship Market Outlook, By Tugs and Barges (2024–2032) (\$MN)
- Table 29 Global Electric Ship Market Outlook, By Defense Vessels (2024–2032) (\$MN)
- Table 30 Global Electric Ship Market Outlook, By Destroyers, Frigates, and Corvettes (2024–2032) (\$MN)
- Table 31 Global Electric Ship Market Outlook, By Submarines (2024–2032) (\$MN)
- Table 32 Global Electric Ship Market Outlook, By Aircraft Carriers (2024–2032) (\$MN)
- Table 33 Global Electric Ship Market Outlook, By Patrol Vessels (2024–2032) (\$MN)
- Table 34 Global Electric Ship Market Outlook, By Special Purpose Vessels (2024–2032) (\$MN)
- Table 35 Global Electric Ship Market Outlook, By Research Vessels (2024–2032) (\$MN)
- Table 36 Global Electric Ship Market Outlook, By Survey Vessels (2024–2032) (\$MN)
- Table 37 Global Electric Ship Market Outlook, By Aquaculture Vessels (2024–2032) (\$MN)
- Table 38 Global Electric Ship Market Outlook, By Power Type (2024–2032) (\$MN)
- Table 39 Global Electric Ship Market Outlook, By Fully Electric (2024–2032) (\$MN)
- Table 40 Global Electric Ship Market Outlook, By Hybrid Electric (2024–2032) (\$MN)
- Table 41 Global Electric Ship Market Outlook, By Diesel-Electric (2024–2032) (\$MN)
- Table 42 Global Electric Ship Market Outlook, By Battery-Diesel Hybrid (2024–2032) (\$MN)
- Table 43 Global Electric Ship Market Outlook, By Gas-Electric Hybrid (2024–2032) (\$MN)
- Table 44 Global Electric Ship Market Outlook, By Power Range (2024–2032) (\$MN)
- Table 45 Global Electric Ship Market Outlook, By Low Power (Less than 1 MW) (2024–2032) (\$MN)
- Table 46 Global Electric Ship Market Outlook, By Medium Power (1 MW to 5 MW) (2024–2032) (\$MN)
- Table 47 Global Electric Ship Market Outlook, By High Power (5 MW to 20 MW) (2024–2032) (\$MN)
- Table 48 Global Electric Ship Market Outlook, By Very High Power (Above 20 MW) (2024–2032) (\$MN)
- Table 49 Global Electric Ship Market Outlook, By Operation (2024–2032) (\$MN)
- Table 50 Global Electric Ship Market Outlook, By Manned (2024–2032) (\$MN)
- Table 51 Global Electric Ship Market Outlook, By Autonomous / Remotely Operated (2024–2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Electric Ship Market Forecasts to 2032 – Global Analysis By System (Energy Storage Systems, Power Conversion Systems: Generators, Conversion Devices, Power Distribution Systems, Power Generation Systems, and Propulsion Systems), Ship Type, Power Type, Power Range, Operation, and By Geography

Product link: <https://marketpublishers.com/r/EBDEBA24A020EN.html>

Price: US\$ 4,150.00 (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/EBDEBA24A020EN.html>