

# Global MEA & PEM Fuel Cell Market 2024 by Manufacturers, Regions, Type and Application, Forecast to 2030

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# **Abstracts**

According to our (Global Info Research) latest study, the global MEA & PEM Fuel Cell market size was valued at USD 1174.9 million in 2023 and is forecast to a readjusted size of USD 4021.2 million by 2030 with a CAGR of 19.2% during review period.

A membrane electrode assembly (MEA) is an assembled stack of proton-exchange membranes (PEM) or alkali anion exchange membrane (AAEM), catalyst and flat plate electrode used in fuel cells and electrolyzers. The PEM is sandwiched between two electrodes which have the catalyst embedded in them. The electrodes are electrically insulated from each other by the PEM. These two electrodes make up the anode and cathode respectively.

Proton-exchange membrane fuel cells, also known as polymer electrolyte membrane (PEM) fuel cells (PEMFC), are a type of fuel cell being developed mainly for transport applications, as well as for stationary fuel-cell applications and portable fuel-cell applications. Their distinguishing features include lower temperature/pressure ranges (50 to 100 °C) and a special proton-conducting polymer electrolyte membrane. PEMFCs generate electricity and operate on the opposite principle to PEM electrolysis, which consumes electricity. They are a leading candidate to replace the aging alkaline fuel-cell technology, which was used in the Space Shuttle.

The global key manufacturers of MEA & PEM fuel cell are Plug Power, Hyundai Mobis, Toyota, Ballard, Cemt and Shenli Hi-Tech, etc., among which the top three manufacturers occupy more than 60%, and the largest manufacturer is Hyundai Mobis at present. The global production of membrane electrodes and PEM fuel cells is mainly distributed in Japan, South Korea, China, North America and other regions, among



which the top four regions occupy more than 95% of the market share, and Japan is the largest production region which accounting for almost 30% production market share. In terms of its product categories, the 10KW-100KW specification has the highest market share of over 50%, followed by specifications over 100KW. In terms of its applications, the transportation industry is the biggest application area, with a market share of over 90%?followed by stationary..

The Global Info Research report includes an overview of the development of the MEA & PEM Fuel Cell industry chain, the market status of Transportation (Below 10KW, 10KW-100KW), Stationary (Below 10KW, 10KW-100KW), and key enterprises in developed and developing market, and analysed the cutting-edge technology, patent, hot applications and market trends of MEA & PEM Fuel Cell.

Regionally, the report analyzes the MEA & PEM Fuel Cell markets in key regions. North America and Europe are experiencing steady growth, driven by government initiatives and increasing consumer awareness. Asia-Pacific, particularly China, leads the global MEA & PEM Fuel Cell market, with robust domestic demand, supportive policies, and a strong manufacturing base.

## Key Features:

The report presents comprehensive understanding of the MEA & PEM Fuel Cell market. It provides a holistic view of the industry, as well as detailed insights into individual components and stakeholders. The report analysis market dynamics, trends, challenges, and opportunities within the MEA & PEM Fuel Cell industry.

The report involves analyzing the market at a macro level:

Market Sizing and Segmentation: Report collect data on the overall market size, including the sales quantity (MW), revenue generated, and market share of different by Type (e.g., Below 10KW, 10KW-100KW).

Industry Analysis: Report analyse the broader industry trends, such as government policies and regulations, technological advancements, consumer preferences, and market dynamics. This analysis helps in understanding the key drivers and challenges influencing the MEA & PEM Fuel Cell market.

Regional Analysis: The report involves examining the MEA & PEM Fuel Cell market at a regional or national level. Report analyses regional factors such as government



incentives, infrastructure development, economic conditions, and consumer behaviour to identify variations and opportunities within different markets.

Market Projections: Report covers the gathered data and analysis to make future projections and forecasts for the MEA & PEM Fuel Cell market. This may include estimating market growth rates, predicting market demand, and identifying emerging trends.

The report also involves a more granular approach to MEA & PEM Fuel Cell:

Company Analysis: Report covers individual MEA & PEM Fuel Cell manufacturers, suppliers, and other relevant industry players. This analysis includes studying their financial performance, market positioning, product portfolios, partnerships, and strategies.

Consumer Analysis: Report covers data on consumer behaviour, preferences, and attitudes towards MEA & PEM Fuel Cell This may involve surveys, interviews, and analysis of consumer reviews and feedback from different by Application (Transportation, Stationary).

Technology Analysis: Report covers specific technologies relevant to MEA & PEM Fuel Cell. It assesses the current state, advancements, and potential future developments in MEA & PEM Fuel Cell areas.

Competitive Landscape: By analyzing individual companies, suppliers, and consumers, the report present insights into the competitive landscape of the MEA & PEM Fuel Cell market. This analysis helps understand market share, competitive advantages, and potential areas for differentiation among industry players.

Market Validation: The report involves validating findings and projections through primary research, such as surveys, interviews, and focus groups.

Market Segmentation

MEA & PEM Fuel Cell market is split by Type and by Application. For the period 2019-2030, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value.

Market segment by Type



В	elow 10KW	
10	0KW-100KW	
A	bove 100KW	
Market segment by Application		
Tı	ransportation	
S	tationary	
0	others	
Major players covered		
P	lug Power	
Н	lyundai Mobis	
To	oyota	
В	allard	
С	cummins (Hydrogenics)	
P	anasonic	
С	eemt	
S	henli Hi-Tech	
S	inosynergy	
Н	lorizon	
N	ledstack	



Vision Group

**SHPT** 

Foresight energy

Sunrise Power

Market segment by region, regional analysis covers

North America (United States, Canada and Mexico)

Europe (Germany, France, United Kingdom, Russia, Italy, and Rest of Europe)

Asia-Pacific (China, Japan, Korea, India, Southeast Asia, and Australia)

South America (Brazil, Argentina, Colombia, and Rest of South America)

Middle East & Africa (Saudi Arabia, UAE, Egypt, South Africa, and Rest of Middle East & Africa)

The content of the study subjects, includes a total of 15 chapters:

Chapter 1, to describe MEA & PEM Fuel Cell product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of MEA & PEM Fuel Cell, with price, sales, revenue and global market share of MEA & PEM Fuel Cell from 2019 to 2024.

Chapter 3, the MEA & PEM Fuel Cell competitive situation, sales quantity, revenue and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the MEA & PEM Fuel Cell breakdown data are shown at the regional level, to show the sales quantity, consumption value and growth by regions, from 2019 to 2030.



Chapter 5 and 6, to segment the sales by Type and application, with sales market share and growth rate by type, application, from 2019 to 2030.

Chapter 7, 8, 9, 10 and 11, to break the sales data at the country level, with sales quantity, consumption value and market share for key countries in the world, from 2017 to 2023.and MEA & PEM Fuel Cell market forecast, by regions, type and application, with sales and revenue, from 2025 to 2030.

Chapter 12, market dynamics, drivers, restraints, trends and Porters Five Forces analysis.

Chapter 13, the key raw materials and key suppliers, and industry chain of MEA & PEM Fuel Cell.

Chapter 14 and 15, to describe MEA & PEM Fuel Cell sales channel, distributors, customers, research findings and conclusion.



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