Global Fuel Cell Powertrain Market Report and Forecast 2024-2032

Market Report | 2024-06-20 | 164 pages | EMR Inc.

AVAILABLE LICENSES:

- Single User License $2999.00
- Five User License $3999.00
- Corporate License $4999.00

Report description:

Global Fuel Cell Powertrain Market Report and Forecast 2024-2032
Market outlook
According to the report by Expert Market Research (EMR), the fuel cell powertrain market size reached a value of USD 1.15 billion in 2023. Aided by the increasing demand for clean and efficient energy sources and the growing applications of fuel cell powertrains in various sectors, the market is projected to further grow at a CAGR of 79.7% between 2024 and 2032 to reach a value of USD 222.95 billion by 2032.
Fuel cell powertrains, which convert chemical energy from fuel into electricity through a chemical reaction, are gaining traction as a sustainable and efficient alternative to traditional internal combustion engines. They are commonly used in electric vehicles (EVs), buses, trucks, and other heavy-duty applications. Fuel cells offer several advantages, including high efficiency, low emissions, and the ability to use a variety of fuels such as hydrogen, methanol, and natural gas.
The increasing global focus on reducing greenhouse gas emissions and combating climate change is driving the demand for fuel cell powertrains. Governments and environmental agencies are implementing stringent regulations and providing incentives to promote the adoption of clean energy technologies. This has led to a surge in investments in fuel cell technology and infrastructure, propelling the fuel cell powertrain market growth.
Additionally, the rising demand for electric vehicles (EVs) is a major factor contributing to the growth of the fuel cell powertrain market. Fuel cell electric vehicles (FCEVs) offer a longer driving range and faster refuelling times compared to battery electric vehicles (BEVs), making them a viable option for long-distance travel and commercial applications. The increasing consumer preference for eco-friendly and energy-efficient vehicles is further boosting the demand for FCEVs, thereby driving the market.
The expanding applications of fuel cell powertrains in various sectors also play a significant role in propelling the market. In the transportation sector, fuel cell powertrains are used in buses, trucks, and trains to reduce emissions and improve fuel efficiency. The industrial sector utilises fuel cell powertrains for stationary power generation, backup power, and material handling equipment. Moreover, the maritime and aviation industries are exploring the use of fuel cell powertrains to achieve zero-emission operations, consequently driving up the fuel cell powertrain market share.
Technological advancements play a crucial role in the growth of the market. Innovations in fuel cell stack design, materials, and manufacturing processes are improving the efficiency and durability of fuel cell systems. The development of advanced catalysts

and membrane materials is enhancing the performance and reducing the cost of fuel cells, making them more competitive with traditional powertrain technologies.

Moreover, the integration of digital technologies such as artificial intelligence (AI) and the Internet of Things (IoT) is revolutionising the market. AI and IoT technologies are being used to optimise fuel cell system performance, monitor real-time data, and enable predictive maintenance. These advancements are particularly beneficial in enhancing the reliability and efficiency of fuel cell powertrains in various applications.

As per the fuel cell powertrain market analysis, the development of hydrogen refuelling infrastructure is gaining momentum globally. Countries are investing heavily in building hydrogen refuelling stations to support the growing fleet of hydrogen-powered vehicles. Europe, Japan, South Korea, and the United States are leading the way with comprehensive plans to expand their hydrogen refuelling networks. This expansion is crucial for the widespread adoption of fuel cell vehicles, as it addresses one of the major barriers - the availability of refuelling options.

Market Segmentation

The market can be divided based on component, vehicle type, power output, and region

Market Breakup by Component

-Fuel Cell System
-Battery System
-Drive System
-Hydrogen Storage System
-Others

Market Breakup by Vehicle Type

-Passenger Cars
-Light Commercial Vehicles
-Heavy Commercial Vehicles

Market Breakup by Power Output

-Less Than 150 KW
-Between 150 to 250 KW
-More Than 250 KW

Market Breakup by Region

-North America
-Europe
-Asia Pacific
-Latin America
-Middle East and Africa

Competitive landscape

The EMR report looks into the market shares, plant turnarounds, capacities, investments, and mergers and acquisitions, among other major developments, of the leading companies operating in global fuel cell powertrain market. some of the major players explored in the report by expert market research are as follows:

-Robert Bosch GmbH
-Denso Corporation
-Continental AG
-Hyundai Motor Company
-FEV Europe GmbH
-Shanghai Fuel Cell Vehicle Powertrain Co., Ltd.
-Cummins Inc.
-FCP Fuel Cell Powertrain GmbH
-Ballard Power Systems Inc.

-Nuvera Fuel Cells, LLC
-Others
About us
Acquire unparalleled access to critical industry insights with our comprehensive market research reports, meticulously prepared by a team of seasoned experts. These reports are designed to equip decision-makers with an in-depth understanding of prevailing market trends, competitive landscapes, and growth opportunities.
Our high-quality, data-driven analysis provides the essential framework for organisations seeking to make informed and strategic decisions in an increasingly complex and rapidly evolving business environment. By investing in our market research reports, you can ensure your organisation remains agile, proactive, and poised for success in today's competitive market.
Don't miss the opportunity to elevate your business intelligence and strengthen your strategic planning. Secure your organisation's future success by acquiring one of our expert market research reports today.
*We at Expert Market Research always strive to provide you with the latest information. The numbers in the article are only indicative and may be different from the actual report.

Table of Contents:

List of Key Figures and Tables

SCOTTS INTERNATIONAL

Global Fuel Cell Powertrain Market Report and Forecast 2024-2032

Market Report | 2024-06-20 | 164 pages | EMR Inc.

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$2999.00
	Five User License	$3999.00
	Corporate License	$4999.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-05-10
		Signature	