

Hydrogen Fuel Cell Vehicle Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

Market Overview:

The global hydrogen fuel cell vehicle market size reached US\$ 1,130.9 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 12,324.9 Million by 2028, exhibiting a growth rate (CAGR) of 45.11% during 2023-2028.

Hydrogen fuel cell vehicles (FCVs) are electric vehicles (EVs) that use an electric motor to power the wheels instead of an internal combustion engine. They comprise battery, battery pack, direct current (DC) converter, electric traction motor, fuel cell stack, fuel filler, fuel tank, power electronics controller, thermal system, and transmission. They rely on hydrogen (H₂) gas in the fuel tank of vehicles and oxygen (O₂) in the air to generate electricity with water and heat as byproducts.

Hydrogen Fuel Cell Vehicle Market Trends:

The rising awareness among the masses about the benefits of using hydrogen FCVs represents one of the key factors driving the market. Besides this, governments of several countries are undertaking initiatives to develop hydrogen fuel cell infrastructure. They are also promoting the use of hydrogen FCVs to reduce greenhouse gas emissions, which is contributing to the growth of the market. In addition, there is a rise in the demand for fuel-efficient vehicles due to the inflating prices of petrol and diesel across the globe. This, along with the depleting fossil fuel reserves, is catalyzing the demand for hydrogen FCVs. Moreover, key market players are extensively investing in research and development (R&D) activities to introduce enhanced fuel cell trucks and hydrogen fuel cell-powered buses to transport passengers, which is positively influencing the market. Apart from this, there is an increase in the utilization of hydrogen

fuel cell technology that offers powertrains that do not emit harmful pollutants, such as nitrogen oxides (NOX) and particulate matter. This, coupled with the burgeoning automotive industry, is propelling the growth of the market. Additionally, the rising development of hydrogen fuel cell infrastructure is offering lucrative growth opportunities to industry investors.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global hydrogen fuel cell vehicle market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on technology and vehicle type.

Breakup by Technology:

- Proton Exchange Membrane Fuel Cell
- Phosphoric Acid Fuel Cell
- Others

Breakup by Vehicle Type:

- Passenger Vehicle
- Commercial Vehicle

Breakup by Region:

- North America
 - United States
 - Canada
- Asia-Pacific
 - China
 - Japan
 - India
 - South Korea
 - Australia
 - Indonesia
 - Others
- Europe
 - Germany
 - France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Ballard Power Systems Inc., Bayerische Motoren Werke AG, Cummins Inc., General Motors Company, Hyundai Motor Company and Toyota Motor Corporation.

Key Questions Answered in This Report

1. What was the size of the global hydrogen fuel cell vehicle market in 2022?
2. What is the expected growth rate of the global hydrogen fuel cell vehicle market during 2023-2028?
3. What are the key factors driving the global hydrogen fuel cell vehicle market?
4. What has been the impact of COVID-19 on the global hydrogen fuel cell vehicle market?
5. What is the breakup of the global hydrogen fuel cell vehicle market based on the technology?
6. What is the breakup of the global hydrogen fuel cell vehicle market based on the vehicle type?
7. What are the key regions in the global hydrogen fuel cell vehicle market?
8. Who are the key players/companies in the global hydrogen fuel cell vehicle market?

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