

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

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Abstracts

The global solar vehicle market size reached US\$ 265.9 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 1,925.9 Million by 2028, exhibiting a growth rate (CAGR) of 39.9% during 2023-2028.

Solar vehicles can be defined as electric automobiles that run on solar energy by using photovoltaic (PV) cells to convert energy from sunlight to electricity. These vehicles have either monocrystalline or polycrystalline panels and are available in two kinds: hybrid and electric. The hybrid variants run on an internal combustion engine (ICE) and an electric motor. Whereas, the electric variants run only on electric motors and store power in rechargeable batteries. These solar-powered vehicles are highly cost-effective and aid in minimizing both environmental and noise pollution.

Growing environmental consciousness across the globe is one of the primary factors driving the market growth. Governments of both developed and emerging economies are increasingly focusing on efforts and undertaking initiatives to minimize vehicular pollution. Consequently, automobile manufacturers are emphasizing on developing sustainable vehicles that reduce the overall dependence on fossil fuels and can operate on clean and renewable sources of energy. Furthermore, the widespread adoption of electric vehicles (EVs) is also providing a boost to the market growth. Additionally, various technological advancements, including the development of automated solar sunroofs that can minimize the time required for charging the vehicle, are also creating a positive outlook for the market growth. Other factors, including the rising demand for fuel-efficient automobiles and research and development (R&D) activities for developing innovative technologies to harness solar energy, are projected to drive the market further.

Key Market Segmentation:

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

Breakup by Propulsion Type:

- BEV
- HEV
- PHEV

Breakup by Vehicle Type:

- Passenger Cars
- Industrial Utility Vehicles
- Commercial Vehicles
- Commercial Turf Utility Vehicles
- Golf Cars
- Others

Breakup by Battery Type:

- Lithium-ion
- Lead-Acid
- Others

Breakup by Solar Panel Type:

- Monocrystalline
- Polycrystalline

Breakup by Charging Type:

- Slow Charging
- Fast Charging

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 with some of the key players being Ford Motor Company, General Motors, Hanergy Thin Film Power Group, JinkoSolar Holding Co., Ltd, Lightyear (Atlas Technologies B.V.), Mahindra & Mahindra, Nissan Motor Co., LTD, Solar Electric Vehicle Company, Sono Motors GmbH, Toyota Motor Corporation, Trina Solar Co.,Ltd, and Volkswagen AG.

Key Questions Answered in This Report

1. What was the size of the global solar vehicle market in 2022?
2. What is the expected growth rate of the global solar vehicle market during 2023-2028?
3. What are the key factors driving the global solar vehicle market?

4. What has been the impact of COVID-19 on the global solar vehicle market?
5. What is the breakup of the global solar vehicle market based on the propulsion type?
6. What is the breakup of the global solar vehicle market based on the vehicle type?
7. What is the breakup of the global solar vehicle market based on the battery type?
8. What is the breakup of the global solar vehicle market based on the solar panel type?
9. What is the breakup of the global solar vehicle market based on the charging type?
10. What are the key regions in the global solar vehicle market?
11. Who are the key players/companies in the global solar vehicle market?

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