

Global C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module market size was valued at USD million in 2023 and is forecast to a readjusted size of USD million by 2030 with a CAGR of % during review period.

C-Si A-Si CIGS Solar Cell and Module refers to a hybrid solar cell and module technology that combines crystalline silicon (C-Si) solar cells with amorphous silicon (A-Si) and copper indium gallium selenide (CIGS) thin-film solar cells. This hybrid structure aims to utilize the advantages of each material to enhance overall efficiency and performance. The C-Si cells provide high efficiency and stability, while A-Si and CIGS thin-film cells offer improved light absorption and tolerance to different lighting conditions. This hybrid approach allows for better energy conversion and increased power output, making it an attractive option for solar panel manufacturers.

China has implemented the Renewable Energy Law since 2006, in which Article 4 clearly states that, the State gives first priority to the exploration of renewable energy. Over the years, various departments of the Chinese government have successively issued a large number of policies, covering production, sales, taxation, subsidies and other aspects. After setting the carbon neutrality goal in 2021, from a national perspective, the upgrading of the energy structure is ever imperative, and therefore the optoelectronic industry has great potential. The European Commission released the Net-Zero Industry Act in 2023. This bill aims to stimulate local manufacturing in Europe, reduce import dependence on China, and ensure that at least 40% of the EU's clean energy demand can be met by 2030. The EU targets an installed solar capacity of 600 GW. Overall, the European market still has a lot of room for development. US 2022 release of the Inflation Reduction Act, which includes \$369 billion for energy security

and climate change investments. For the photovoltaic industry, the bill stimulates its development from multiple aspects such as corporate and individual tax credits, production subsidies, and loans throughout the industry chain, and revitalizes the domestic manufacturing industry in the United States. Japanese authorities plan to make solar panels mandatory for new residential buildings in Tokyo from 2025 onwards. It is estimated that by 2030, photovoltaic power generation will account for 14%-16% of Japan's total power generation, and the cumulative installed capacity of photovoltaic systems will be about 117.244 GW.

The Global Info Research report includes an overview of the development of the C-Si A-Si CIGS Solar Cell and Module industry chain, the market status of Residential (Tandem Design, Multi-Knot Design), Commercial (Tandem Design, Multi-Knot Design), and key enterprises in developed and developing market, and analysed the cutting-edge technology, patent, hot applications and market trends of C-Si A-Si CIGS Solar Cell and Module.

Regionally, the report analyzes the C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module market, with robust domestic demand, supportive policies, and a strong manufacturing base.

Key Features:

The report presents comprehensive understanding of the C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module 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 (GWh), revenue generated, and market share of different by Type (e.g., Tandem Design, Multi-Knot Design).

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 C-Si A-Si CIGS Solar Cell and Module market.

Regional Analysis: The report involves examining the C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module market. This may include estimating market growth rates, predicting market demand, and identifying emerging trends.

The report also involves a more granular approach to C-Si A-Si CIGS Solar Cell and Module:

Company Analysis: Report covers individual C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module. This may involve surveys, interviews, and analysis of consumer reviews and feedback from different by Application (Residential, Commercial).

Technology Analysis: Report covers specific technologies relevant to C-Si A-Si CIGS Solar Cell and Module. It assesses the current state, advancements, and potential future developments in C-Si A-Si CIGS Solar Cell and Module areas.

Competitive Landscape: By analyzing individual companies, suppliers, and consumers, the report present insights into the competitive landscape of the C-Si A-Si CIGS Solar Cell and Module 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

C-Si A-Si CIGS Solar Cell and Module 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

Tandem Design

Multi-Knot Design

Market segment by Application

Residential

Commercial

Ground Station

Others

Major players covered

Solar Frontier

SoloPower

Siva Power

Avancis

Solibro (Hanergy)

Miasole

Global Solar

Flisom

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 C-Si A-Si CIGS Solar Cell and Module product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of C-Si A-Si CIGS Solar Cell and Module, with price, sales, revenue and global market share of C-Si A-Si CIGS Solar Cell and Module from 2019 to 2024.

Chapter 3, the C-Si A-Si CIGS Solar Cell and Module competitive situation, sales quantity, revenue and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module 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 C-Si A-Si CIGS Solar Cell and Module.

Chapter 14 and 15, to describe C-Si A-Si CIGS Solar Cell and Module sales channel, distributors, customers, research findings and conclusion.

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