+44 20 8123 2220
info@marketpublishers.com

String Inverter Market Report by Connection Type (On-Grid, Off-Grid), Phase (Single Phase, Three Phase), Power Rating (Up to 10kW, 11kW to 40kW, 41kW to 80kW, Above 80kW), End Use (Residential, Commercial and Industrial, Utilities), and Region 2024-2032

https://marketpublishers.com/r/S03D77D89A8CEN.html
Date: September 2024
Pages: 148
Price: US$ 3,509.00 (Single User License)
ID: S03D77D89A8CEN

Abstracts

The global string inverter market size reached US$ 3.8 Billion in 2023. Looking forward, IMARC Group expects the market to reach US$ 6.1 Billion by 2032, exhibiting a growth rate (CAGR) of 5.3% during 2024-2032. The market is propelled by the increasing adoption of renewable energy sources, rising demand for energy-efficient technologies, favorable government policies and incentives, significant advancements in inverter technology, integration of smart grid technology, and growing popularity of microgrids.

String Inverter Market Analysis:

Major Market Drivers: Increasing adoption of renewable energy sources, rising demand for energy-efficient technologies, and favorable government policies and incentives, are some of the major market drivers of the industry.

Key Market Trends: Some of the key market trends include integration of smart grid technology, increasing popularity of microgrids, and increasing focus on distributed energy resources.

Geographical Trends: Rapid urbanization and industrialization, favorable government initiatives and supporting solar energy, and increasing investments in renewable energy infrastructure are propelling the string inverter demand

+44 20 8123 2220
info@marketpublishers.com

across the Asia Pacific region.

Competitive Landscape: Some of the major market players in the string inverter industry include ABB Ltd., Chint Power Systems, Delta Electronics (Thailand) PCL, Fronius International GmbH, Ginlong Technologies Co. Ltd., Huawei Technologies Co. Ltd., Schneider Electric SE, Siemens AG, SMA Solar Technology AG, SolarEdge Technologies Inc., SOLARMAX GmbH and Sungrow Power Supply Co. Ltd., among many others.

Challenges and Opportunities: Some of the challenges include high initial costs of installation, competition from alternative inverter technologies, and uncertainties related to string inverters. Whereas, expanding market for rooftop solar installations, significant technological advancements in inverter design, and increasing demand for decentralized power generation are some of the major string inverter market recent opportunities.

String Inverter Market Trends:

Increasing Adoption of Renewable Energy Sources

The global string inverter market is significantly driven by the increasing adoption of renewable energy sources, particularly solar power. According to the INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA), the despite the sudden COVID-19 pandemic, more than 260 GW of renewable energy capacity were installed in 2020, positively impacting the string inverter market growth. Governments worldwide are implementing policies and incentives to promote the use of clean energy, aiming to reduce greenhouse gas emissions and combat climate change. As a result, there has been a substantial increase in the installation of solar photovoltaic (PV) systems, which rely on string inverters to convert the direct current (DC) generated by solar panels into alternating current (AC) for use in homes and businesses. The transition to renewable energy is a necessity driven by environmental concerns and the need for sustainable energy solutions. This rise in solar installations directly impacts the demand for string inverters, as they are essential components in solar power systems.

Increasing Demand for Energy-Efficient Technologies

The rising demand for energy-efficient technologies is another crucial factor driving the global string inverter market. Energy efficiency has become a key focus area for both

+44 20 8123 2220
info@marketpublishers.com

consumers and businesses aiming to reduce energy consumption, lower operational costs, and minimize their environmental footprint. According to the INTERNATIONAL ENERGY AGENCY (IEA), improving energy efficiency could deliver more than 40% of the reduction in energy-related greenhouse gas emissions needed to meet global climate goals by the year 2040. This underscores the importance of energy-efficient technologies such as string inverters in achieving sustainability targets. String inverters play a vital role in enhancing the energy efficiency of solar PV systems by maximizing the conversion of DC power to AC power with minimal losses, thereby creating a positive string inverter market outlook.

Favorable Government Policies and Incentives

Favorable government policies and incentives are pivotal in creating a positive string inverter market overview. Governments around the world are implementing various measures to encourage the adoption of renewable energy and support the deployment of solar power systems. These measures include subsidies, tax credits, feed-in tariffs, and renewable energy certificates, all of which make solar installations more financially attractive and accessible to a broader audience. In many countries, solar energy policies are designed to achieve ambitious renewable energy targets and reduce dependence on fossil fuels. For instance, the European Union has set a target to achieve 32% of its energy from renewable sources by 2030. Such initiatives drive the adoption of solar PV systems, consequently contributing to a positive string inverter market revenue.

String Inverter Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the market, along with forecasts at the global, regional, and country levels for 2024-2032. Our report has categorized the market based on connection type, phase, power rating, and end use.

Breakup by Connection Type:

On-Grid

Off-Grid

On-grid accounts for the majority of the market share

+44 20 8123 2220
info@marketpublishers.com

The report has provided a detailed breakup and analysis of the market based on the connection type. This includes on-grid and off-grid. According to the report, on-grid represented the largest segment.

The on-grid holds the largest string inverter market share due to its integration with the existing power grid, which ensures a reliable and continuous power supply. On-grid systems allow for the excess electricity generated by solar panels to be fed back into the grid, providing financial incentives such as net metering. This connection type is highly favored in urban and suburban areas where grid infrastructure is already established, making it more cost-effective and efficient. Additionally, on-grid systems benefit from government incentives and policies promoting renewable energy integration, further driving their dominance in the market.

Breakup by Phase:

Single Phase

Three Phase

Three phase holds the largest share of the industry

A detailed breakup and analysis of the market based on the phase have also been provided in the string inverter market report. This includes single phase and three phase. According to the report, three phase accounted for the largest market share.

The three-phase segment is the largest in the string inverter market due to its high efficiency and suitability for large-scale commercial and industrial solar installations. Three-phase inverters handle higher power loads and provide a more balanced power supply, making them ideal for applications requiring substantial energy output. Their ability to reduce power losses and improve the stability of the electrical grid further enhances their adoption. Additionally, the growing demand for renewable energy solutions in industrial sectors, which often require robust and reliable power systems, contributes to the dominance of the three-phase segment in the market.

Breakup by Power Rating:

Up to 10kW

+44 20 8123 2220
info@marketpublishers.com

11kW to 40kW

41kW to 80kW

Above 80kW

41kW to 80kW represents the leading market segment

The report has provided a detailed breakup and analysis of the market based on the power rating. This includes up to 10kW, 11kW to 40 kW, 41kW to 80kW, above 80kW. According to the report, 41 kW to 80kW represented the largest segment.

The 41kW to 80kW power rating segment is the largest in the string inverter market due to its optimal balance of capacity and efficiency for commercial and industrial applications. These inverters are highly suitable for medium-sized installations, such as commercial buildings, factories, and large-scale residential projects, where higher power output and reliable performance are essential. Their scalability and cost-effectiveness make them a preferred choice for businesses seeking to maximize energy production while minimizing installation and operational costs. According to the string inverter market forecast, this segment accounted for a significant market share, driven by the growing demand for robust and efficient solar power solutions.

Breakup by End Use:

Residential

Commercial and Industrial

Utilities

Utilities exhibits a clear dominance in the market

A detailed breakup and analysis of the market based on the end use have also been provided in the report. This includes residential, commercial and industrial, and utilities. According to the report, utilities accounted for the largest market share.

+44 20 8123 2220
info@marketpublishers.com

Utilities are the largest segment in the string inverter market by end use because they manage large-scale solar power installations, which require high-capacity inverters to efficiently convert and distribute energy. These utility-scale projects benefit from economies of scale, driving significant demand for advanced string inverters. Additionally, the transition toward renewable energy sources to meet regulatory targets and reduce carbon footprints has led utilities to invest heavily in solar infrastructure. This investment ensures a steady and substantial demand for string inverters, cementing utilities as the dominant segment in the market.

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

+44 20 8123 2220
info@marketpublishers.com

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Asia Pacific leads the market, accounting for the largest string inverter market share

The report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, Asia Pacific was the largest regional market for string inverter.

Asia Pacific is the largest segment in the global string inverter market due to rapid urbanization, industrialization, and significant government initiatives promoting renewable energy. Countries such as China and India have implemented ambitious solar energy targets and substantial investments in solar infrastructure. The abundant solar potential of the region, combined with declining costs of solar PV systems, further drives adoption. Additionally, supportive policies, subsidies, and favorable regulatory frameworks enhance market growth. Besides this, the Asia Pacific region also benefits from a growing awareness about environmental sustainability and the urgent need to reduce carbon emissions, which drives both governmental and private sector

investments in solar energy. The robust economic growth in this region increases energy demand, encouraging the adoption of efficient and renewable energy sources.

Competitive Landscape:

The market research report has also provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the major string inverter companies include ABB Ltd., Chint Power Systems, Delta Electronics (Thailand) PCL, Fronius International GmbH, Ginlong Technologies Co. Ltd., Huawei Technologies Co. Ltd., Schneider Electric SE, Siemens AG, SMA Solar Technology AG, SolarEdge Technologies Inc., SOLARMAX GmbH and Sungrow Power Supply Co. Ltd.

(Please note that this is only a partial list of the key players, and the complete list is provided in the report.)

String inverter market recent developments include rising investments in research and development to enhance inverter efficiency and performance and introduction of innovative products with advanced features such as real-time monitoring, smart grid compatibility, and enhanced durability. These players are also expanding their production capacities and establishing strategic partnerships and collaborations to increase their market reach. Additionally, key players are focusing on expanding their geographical presence, particularly in emerging markets such as Asia Pacific, by setting up local manufacturing units and service centers. They are also actively involved in providing comprehensive after-sales services and training programs to installers and end-users, ensuring the optimal use and maintenance of their products. These efforts collectively bolster the growth of the global string inverter market. .

String Inverter Market News:

October 6 2023: SUNGROW, a global leader in renewable energy solutions, has launched new products in India during REI 2023 to support the energy transition of the nation. These solutions also include a new generation 320kW string inverter SG320HX-20.

+44 20 8123 2220
info@marketpublishers.com

Key Questions Answered in This Report:

How has the global string inverter market performed so far, and how will it perform in the coming years?

What are the drivers, restraints, and opportunities in the global string inverter market?

What is the impact of each driver, restraint, and opportunity on the global string inverter market?

What are the key regional markets?

Which countries represent the most attractive string inverter market?

What is the breakup of the market based on the connection type?

Which is the most attractive connection type in the string inverter market?

What is the breakup of the market based on the phase?

Which is the most attractive phase in the string inverter market?

What is the breakup of the market based on the power rating?

Which is the most attractive power rating in the string inverter market?

What is the breakup of the market based on the end use?

Which is the most attractive end use in the string inverter market?

What is the competitive structure of the market?

Who are the key players/companies in the global string inverter market?

+44 20 8123 2220
info@marketpublishers.com

Contents

+44 20 8123 2220
info@marketpublishers.com

7 MARKET BREAKUP BY PHASE

8 MARKET BREAKUP BY POWER RATING

9 MARKET BREAKUP BY END USE

10 MARKET BREAKUP BY REGION

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+44 20 8123 2220
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

I would like to order

Product name: String Inverter Market Report by Connection Type (On-Grid, Off-Grid), Phase (Single Phase, Three Phase), Power Rating (Up to 10kW, 11kW to 40kW, 41kW to 80kW, Above 80kW), End Use (Residential, Commercial and Industrial, Utilities), and Region 2024-2032

Product link: https://marketpublishers.com/r/S03D77D89A8CEN.html

Price: US$ 3,509.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/S03D77D89A8CEN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

+44 20 8123 2220
info@marketpublishers.com

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970