

Global Synchrophasors Market Size Study, by Component (Hardware, Software, Services), by Application (Fault Location Identification and Protective Relaying, State Estimation, Stability Monitoring, Power System Control, Wide Area Situational Awareness and Monitoring, Islanding Detection, Load Characterization, Others), by End-use (Power Transmission Systems, Power Distribution Systems, Distributed Energy Systems, Power Generation), and Regional Forecasts 2022-2032

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Abstracts

The global Synchrophasors Market is valued at approximately USD 258.9 million in 2023 and is anticipated to grow with a healthy growth rate of more than 20.5% over the forecast period 2024-2034. Time-synchronized electrical measurements, called synchrophasors, represent the magnitude and phase angle of the electrical sinusoids. Phasor measurement units (PMUs) measure synchrophasors for real-time monitoring and control actions on the electric grid. The growth in demand for synchrophasors is ascribed to their better situational awareness capability. Synchrophasors are widely used for monitoring, state estimation, fault location and protective relaying, islanding detection, etc. Utilities and governments that prioritize grid resilience and efficiency consider synchrophasors as vital tools to enhance both the intelligence and operational performance of power distribution systems. By using synchrophasors, the North American SynchroPhasor Initiative (NASPI) has the mission to improve power system reliability and visibility through wide area measurement and control.

The synchrophasors market is set for significant growth and transformation due to the increase in complexities and challenges of modern power systems. Synchrophasors are a core technology that bring real-time visibility, control, and optimization capabilities for grid stability and reliability in a changing energy environment. The surge in adoption of renewable energy sources, smart grid initiatives, and modernization programs aiming at making the grid more sustainable are further driving market development. Expanding applications of synchrophasors in transmission networks as well as distribution systems, and integration of advanced data analytics and artificial intelligence are bolstering the synchrophasors market growth.

Key regions considered for the global Synchrophasors Market study include Asia Pacific, North America, Europe, Latin America, and the Rest of the World. In 2023, Asia Pacific held a prominent share is anticipated to grow at a fastest rate throughout the forecast period. The synchrophasor market is booming in the Asia Pacific region due to several reasons. With the rapid increase in renewable energy capacity, there is a focus on integrating variable energy sources while keeping the grid stable. Synchrophasor technology provides real-time monitoring and control, aligning with the region's efforts to modernize and strengthen the grid.

Major market players included in this report are:

ABB

Alstom Grid

Arbiter Systems Inc.

Electric Power Group, LLC

Electro Industries

FUJI ELECTRIC FRANCE S.A.S

General Electric

Hitachi Energy

Macrodyne

NR Electric

Schneider Electric

Schweitzer Engineering Laboratories

Siemens Energy

Toshiba Corporation

Vizimax

The detailed segments and sub-segment of the market are explained below:

By Component:

Hardware

Software

Services

By Application:

Fault Location Identification and Protective Relaying

State Estimation

Stability Monitoring

Power System Control

Wide Area Situational Awareness and Monitoring

Islanding Detection

Load Characterization

Others

By End-use:

Power Transmission Systems

Power Distribution Systems

Distributed Energy Systems

Power Generation

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia
South Korea
RoAPAC

Latin America
Brazil
Mexico
Rest of Latin America

Middle East & Africa
Saudi Arabia
South Africa
RoMEA

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

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