

Smart Transformers Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 125 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The smart transformers market is expected to record a CAGR of more than 2.5% over the forecast period, 2022-2027. The COVID-19 pandemic has caused significant disruptions in the essential smart transformer supply chain, such as microchips. Further, the pandemic in 2020 had caused a decrease in electricity consumption, impacting the revenue of electricity distribution companies and project finance. Factors such as the increasing focus of governments across the developed and emerging economies on adopting smart technology in power grid infrastructure and rising challenges, such as aging transmission and distribution (T&D) infrastructure, electric vehicle charging, and distributed generation, are expected to benefit the growth of smart transformers across the globe. Moreover, the increasing demand for smart grid technologies and energy storage initiatives is likely to further drive the smart transformers market during the forecast period. The challenge, however, is the problem of low accessibility to electricity in underdeveloped nations across the world and poor government regulations and initiatives to expand and modernize the grid infrastructure, which is expected to limit the growth of the market studied.

Key Highlights

Distribution transformers, which are used to communicate with consumers and for continuous load monitoring, are expected to be a significant segment of the smart transformers market.

A number of governments of both emerging and underdeveloped nations worldwide are increasingly viewing smart grid technology as a strategic infrastructural investment that will sustain their long-term economic prosperity and help them achieve their carbon emission reduction targets. This, in turn, is expected to provide an ample amount of opportunity to the companies involved in the smart transformers market in the near future.

Asia-Pacific is the largest and is expected to be the fastest-growing region, primarily driven by the transmission and distribution developments and industrial growth in Southeast Asia, China, and India.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott-international.com

www.scott-international.com

Smart Transformers Market Trends

Distribution Transformers to Dominate the Market

The growing emphasis on renewable energy generation across the world, coupled with increasing electrical infrastructure projects, is expected to drive the demand for distribution transformers during the forecast period, in turn driving the smart transformers market.

In an electric distribution grid, smart transformers work independently to monitor and regulate the voltage while maintaining contact with the smart grid. This enables the information about the transformer and the power supply to be provided even by remote administration. Hence, this enables proper load management, resulting in better power quality and lesser power outages. In 2021, India was the third-largest electricity-generating nation in the world. The power is generated from both conventional and renewable sources. The country has made major strides in improving access to power among both rural and urban communities through various government-led schemes focused on Power for All. These systems have been largely driven through the use of distribution transformers.

Furthermore, developed economies, such as the United States, European Countries, and Japan, contribute to the significant demand for smart transformers, owing to the increasing replacement of aging power distribution equipment and the increase in the integration of renewables into the grid.

In February 2022, Ameren Missouri planned to upgrade its aging infrastructure and invest in smart technology across the state during the 2022-2027 period. Ameren filed its updated Smart Energy Plan with Missouri's Public Service Commission (PSC), pledging to put USD 8.4 billion toward replacing equipment, some of which is up to 50 years old, and setting new technology into practice to improve service and resiliency for its customers including expected distributed transformers.

According to International Energy Agency, in 2021, USD 289 billion was spent on smart grid development, increasing from USD 262.6 billion in 2020. This trend is expected to continue in the coming years and further aid the growth of the market.

Hence, distribution transformers are expected to dominate the market due to growing demand in large economies to further extend reliable distribution.

Asia-Pacific to Dominate the Market

Asia-Pacific has dominated the smart grid network market in 2018 and is expected to continue its dominance in the coming years as well backed up by countries such as China, India, and Japan.

China has the ambition to become a world leader in electrical power equipment by 2025. This is a national strategy outlined in the Technology Roadmap (2017) of the Made in China 2025 program. Innovation and technology are heavily focused on in the federal program. Large amounts of funding are allocated to support the development.

In India, the distribution segment is fraught with aging infrastructure, high network losses, and poor financial performances. To reduce these challenges, it is essential to augment the performance of sub-transmission and distribution networks. Smart transformers bring a notion of smartness. This smartness enhances the value for the end consumer through improved availability of electricity. The need and necessity for smart transformers in India are well established. It is, in fact, all the more relevant to be smart about the usage of energy and electricity to deliver low-cost electricity.

Moreover, in remote places, where the cost of installation of power grids can be high, it becomes comparatively less expensive for the government to deploy renewable energy sources for power generation and increase the electrification rate, thus propelling the market for distribution transformers in the country.

In February 2022, the Indian state government of Madhya Pradesh was set to expand and modernize its electricity network by deploying smart meters and smart grid technologies using EUR 140 million secured from German bank KfW. The modernization of

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

the smart grid is expected to include all facets of technologies, including smart transformers. Such investments are expected to aid the growth of the market in the coming years.

Hence, Asia-Pacific is expected to dominate the market due to its growing population, increasing purchasing power, and rising demand for energy.

Smart Transformers Market Competitor Analysis

The smart transformers market is moderately fragmented. Some of the key players in this market are ABB Ltd, Siemens AG, Schneider Electric SE, Eaton Corporation PLC, and General Electric Company.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

Table of Contents:

1 INTRODUCTION

1.1 Scope of the Study

1.2 Market Definition

1.3 Study Assumptions

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET OVERVIEW

4.1 Introduction

4.2 Market Size and Demand Forecast in USD billion, till 2027

4.3 Recent Trends and Developments

4.4 Government Policies and Regulations

4.5 Market Dynamics

4.5.1 Drivers

4.5.2 Restraints

4.6 Supply Chain Analysis

4.7 Porter's Five Forces Analysis

4.7.1 Bargaining Power of Suppliers

4.7.2 Bargaining Power of Consumers

4.7.3 Threat of New Entrants

4.7.4 Threat of Substitutes Products and Services

4.7.5 Intensity of Competitive Rivalry

5 MARKET SEGMENTATION

5.1 Type

5.1.1 Distribution Transformers

5.1.2 Power Transformers

5.2 Application

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.2.1 Smart Grid
- 5.2.2 Traction Locomotive
- 5.2.3 Other Applications
- 5.3 Geography
 - 5.3.1 North America
 - 5.3.2 Europe
 - 5.3.3 Asia-Pacific
 - 5.3.4 South America
 - 5.3.5 Middle East & Africa

6 COMPETITIVE LANDSCAPE

- 6.1 Mergers and Acquisitions, Joint Ventures, Collaborations, and Agreements
- 6.2 Strategies Adopted by Leading Players
- 6.3 Company Profiles
 - 6.3.1 ABB Ltd
 - 6.3.2 Crompton Greaves
 - 6.3.3 Siemens AG
 - 6.3.4 General Electric Company
 - 6.3.5 Hitachi Ltd
 - 6.3.6 Schneider Electric SE
 - 6.3.7 Mitsubishi Electric Corporation
 - 6.3.8 SPX Transformer Solutions Inc.
 - 6.3.9 Eaton Corporation PLC
 - 6.3.10 KONCAR - Electrical Industry Inc.

7 MARKET OPPORTUNITIES AND FUTURE TRENDS

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Smart Transformers Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 125 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scott's-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scott's-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-02-28"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott's-international.com

www.scott's-international.com

