

Global Grid-Forming Controllers Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

<https://marketpublishers.com/r/GEEA577AA6E5EN.html>

Date: September 2026

Pages: 157

Price: US\$ 3,480.00 (Single User License)

ID: GEEA577AA6E5EN

Abstracts

According to our (Global Info Research) latest study, the global Grid-Forming Controllers market size was valued at US\$ 525 million in 2025 and is forecast to a readjusted size of US\$ 1647 million by 2032 with a CAGR of 17.4% during review period.

In 2025, global Grid-Forming Controllers production reached approximately 170 thousand units, with an average global market price of around USD 3000 per unit.

The gross profit margin of major companies in the industry was approximately 35%–55%.

In 2025, global production capacity of Grid-Forming Controllers was approximately 220 thousand units.

Grid-Forming Controllers are advanced power control devices that enable energy storage and power conversion systems to actively establish and regulate voltage, frequency, and phase rather than merely following an existing grid signal. They implement control functions such as virtual inertia, frequency response, voltage support, synchronization, and islanded operation. Products are primarily integrated into battery energy storage, renewable power plants, microgrids, and weak-grid power systems.

The industrial chain of Grid-Forming Controllers includes upstream processors, power control chips, sensors, communication modules, embedded software, algorithms, and electronic components; midstream covers control architecture development, hardware design, algorithm implementation, software integration, testing, and certification;

downstream applications mainly include battery energy storage, renewable power plants, microgrids, utility grids, industrial power systems, and weak-grid environments.

Report Scope

This report is a detailed and comprehensive analysis for global Grid-Forming Controllers market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Type and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Grid-Forming Controllers market size and forecasts, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2021-2032

Global Grid-Forming Controllers market size and forecasts by region and country, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2021-2032

Global Grid-Forming Controllers market size and forecasts, by Type and by Application, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2021-2032

Global Grid-Forming Controllers market shares of main players, shipments in revenue (\$ Million), sales quantity (K Units), and ASP (US\$/Unit), 2021-2026

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries

To assess the growth potential for Grid-Forming Controllers

To forecast future growth in each product and end-use market

To assess competitive factors affecting the marketplace

This report profiles key players in the global Grid-Forming Controllers market based on the following parameters - company overview, sales quantity, revenue, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include SMA Solar Technology AG, Hitachi Energy Ltd., Siemens Energy AG, GE Vernova Inc., Schneider Electric SE, ABB Ltd., Wärtsilä Corporation, Fluence Energy, Inc., Tesla, Inc., Nidec Conversion, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Grid-Forming Controllers market is split by Type and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value. This analysis can help you expand your business by targeting qualified niche markets.

Market Segmentation

Market segment by Type

Droop Control-based Controllers

Virtual Synchronous Machine Controllers

Virtual Oscillator Control-based Controllers

Market segment by Controller Architecture

Centralized Plant Controllers

Distributed Unit Controllers

Hierarchical Coordinated Controllers

Market segment by Supported Plant Capacity

Small-scale($\leq$ 10 MW)

Medium-scale(>10 –100 MW)

Large-scale(>100 MW)

Market segment by Application

Voltage and Frequency Formation

Synthetic Inertia and Fast Frequency Response

Black Start and Weak-grid Stabilization

Other

Major players covered

SMA Solar Technology AG

Hitachi Energy Ltd.

Siemens Energy AG

GE Vernova Inc.

Schneider Electric SE

ABB Ltd.

Wärtsilä Corporation

Fluence Energy, Inc.

Tesla, Inc.

Nidec Conversion

Ingeteam S.A.

Power Electronics S.L.

Toshiba Energy Systems & Solutions Corporation

Mitsubishi Electric Corporation

LS ELECTRIC Co., Ltd.

Sungrow Power Supply Co., Ltd.

Huawei Digital Power Technologies Co., Ltd.

Sineng Electric Co., Ltd.

NR Electric Co., Ltd.

Shenzhen KSTAR Science and Technology Co., Ltd.

Kehua Data Co., Ltd.

CRRC Zhuzhou Institute Co., Ltd.

Shenzhen Hopewind Electric Co., Ltd.

Beijing HyperStrong Technology Co., Ltd.

XJ Electric Co., Ltd.

Market segment by region, regional analysis covers

Global Grid-Forming Controllers Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

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)

Chapter Outline

Chapter 1, to describe Grid-Forming Controllers product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of Grid-Forming Controllers, with price, sales quantity, revenue, and global market share of Grid-Forming Controllers from 2021 to 2026.

Chapter 3, the Grid-Forming Controllers competitive situation, sales quantity, revenue, and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the Grid-Forming Controllers breakdown data are shown at the regional level, to show the sales quantity, consumption value, and growth by regions, from 2021 to 2032.

Chapter 5 and 6, to segment the sales by Type and by Application, with sales market share and growth rate by Type, by Application, from 2021 to 2032.

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 2021 to 2026. and Grid-Forming Controllers market forecast, by regions, by Type, and by Application, with sales and revenue, from 2027 to 2032.

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 Grid-Forming Controllers.

Chapter 14 and 15, to describe Grid-Forming Controllers sales channel, distributors, customers, research findings and conclusion.

Contents

1 MARKET OVERVIEW

1.1 Product Overview and Scope

1.2 Market Estimation Caveats and Base Year

1.3 Market Analysis by Type

1.3.1 Overview: Global Grid-Forming Controllers Consumption Value by Type: 2021 Versus 2025 Versus 2032

1.3.2 Droop Control-based Controllers

1.3.3 Virtual Synchronous Machine Controllers

1.3.4 Virtual Oscillator Control-based Controllers

1.4 Market Analysis by Controller Architecture

1.4.1 Overview: Global Grid-Forming Controllers Consumption Value by Controller Architecture: 2021 Versus 2025 Versus 2032

1.4.2 Centralized Plant Controllers

1.4.3 Distributed Unit Controllers

1.4.4 Hierarchical Coordinated Controllers

1.5 Market Analysis by Supported Plant Capacity

1.5.1 Overview: Global Grid-Forming Controllers Consumption Value by Supported Plant Capacity: 2021 Versus 2025 Versus 2032

1.5.2 Small-scale(<10 MW)

1.5.3 Medium-scale(>10–100 MW)

1.5.4 Large-scale(>100 MW)

1.6 Market Analysis by Application

1.6.1 Overview: Global Grid-Forming Controllers Consumption Value by Application: 2021 Versus 2025 Versus 2032

1.6.2 Voltage and Frequency Formation

1.6.3 Synthetic Inertia and Fast Frequency Response

1.6.4 Black Start and Weak-grid Stabilization

1.6.5 Other

1.7 Global Grid-Forming Controllers Market Size & Forecast

1.7.1 Global Grid-Forming Controllers Consumption Value (2021 & 2025 & 2032)

1.7.2 Global Grid-Forming Controllers Sales Quantity (2021-2032)

1.7.3 Global Grid-Forming Controllers Average Price (2021-2032)

2 MANUFACTURERS PROFILES

2.1 SMA Solar Technology AG

- 2.1.1 SMA Solar Technology AG Details
- 2.1.2 SMA Solar Technology AG Major Business
- 2.1.3 SMA Solar Technology AG Grid-Forming Controllers Product and Services
- 2.1.4 SMA Solar Technology AG Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
- 2.1.5 SMA Solar Technology AG Recent Developments/Updates
- 2.2 Hitachi Energy Ltd.
 - 2.2.1 Hitachi Energy Ltd. Details
 - 2.2.2 Hitachi Energy Ltd. Major Business
 - 2.2.3 Hitachi Energy Ltd. Grid-Forming Controllers Product and Services
 - 2.2.4 Hitachi Energy Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.2.5 Hitachi Energy Ltd. Recent Developments/Updates
- 2.3 Siemens Energy AG
 - 2.3.1 Siemens Energy AG Details
 - 2.3.2 Siemens Energy AG Major Business
 - 2.3.3 Siemens Energy AG Grid-Forming Controllers Product and Services
 - 2.3.4 Siemens Energy AG Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.3.5 Siemens Energy AG Recent Developments/Updates
- 2.4 GE Vernova Inc.
 - 2.4.1 GE Vernova Inc. Details
 - 2.4.2 GE Vernova Inc. Major Business
 - 2.4.3 GE Vernova Inc. Grid-Forming Controllers Product and Services
 - 2.4.4 GE Vernova Inc. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.4.5 GE Vernova Inc. Recent Developments/Updates
- 2.5 Schneider Electric SE
 - 2.5.1 Schneider Electric SE Details
 - 2.5.2 Schneider Electric SE Major Business
 - 2.5.3 Schneider Electric SE Grid-Forming Controllers Product and Services
 - 2.5.4 Schneider Electric SE Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.5.5 Schneider Electric SE Recent Developments/Updates
- 2.6 ABB Ltd.
 - 2.6.1 ABB Ltd. Details
 - 2.6.2 ABB Ltd. Major Business
 - 2.6.3 ABB Ltd. Grid-Forming Controllers Product and Services
 - 2.6.4 ABB Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue,

Gross Margin and Market Share (2021-2026)

2.6.5 ABB Ltd. Recent Developments/Updates

2.7 Wärtsilä Corporation

2.7.1 Wärtsilä Corporation Details

2.7.2 Wärtsilä Corporation Major Business

2.7.3 Wärtsilä Corporation Grid-Forming Controllers Product and Services

2.7.4 Wärtsilä Corporation Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.7.5 Wärtsilä Corporation Recent Developments/Updates

2.8 Fluence Energy, Inc.

2.8.1 Fluence Energy, Inc. Details

2.8.2 Fluence Energy, Inc. Major Business

2.8.3 Fluence Energy, Inc. Grid-Forming Controllers Product and Services

2.8.4 Fluence Energy, Inc. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.8.5 Fluence Energy, Inc. Recent Developments/Updates

2.9 Tesla, Inc.

2.9.1 Tesla, Inc. Details

2.9.2 Tesla, Inc. Major Business

2.9.3 Tesla, Inc. Grid-Forming Controllers Product and Services

2.9.4 Tesla, Inc. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.9.5 Tesla, Inc. Recent Developments/Updates

2.10 Nidec Conversion

2.10.1 Nidec Conversion Details

2.10.2 Nidec Conversion Major Business

2.10.3 Nidec Conversion Grid-Forming Controllers Product and Services

2.10.4 Nidec Conversion Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.10.5 Nidec Conversion Recent Developments/Updates

2.11 Ingeteam S.A.

2.11.1 Ingeteam S.A. Details

2.11.2 Ingeteam S.A. Major Business

2.11.3 Ingeteam S.A. Grid-Forming Controllers Product and Services

2.11.4 Ingeteam S.A. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.11.5 Ingeteam S.A. Recent Developments/Updates

2.12 Power Electronics S.L.

2.12.1 Power Electronics S.L. Details

- 2.12.2 Power Electronics S.L. Major Business
- 2.12.3 Power Electronics S.L. Grid-Forming Controllers Product and Services
- 2.12.4 Power Electronics S.L. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
- 2.12.5 Power Electronics S.L. Recent Developments/Updates
- 2.13 Toshiba Energy Systems & Solutions Corporation
 - 2.13.1 Toshiba Energy Systems & Solutions Corporation Details
 - 2.13.2 Toshiba Energy Systems & Solutions Corporation Major Business
 - 2.13.3 Toshiba Energy Systems & Solutions Corporation Grid-Forming Controllers Product and Services
 - 2.13.4 Toshiba Energy Systems & Solutions Corporation Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.13.5 Toshiba Energy Systems & Solutions Corporation Recent Developments/Updates
- 2.14 Mitsubishi Electric Corporation
 - 2.14.1 Mitsubishi Electric Corporation Details
 - 2.14.2 Mitsubishi Electric Corporation Major Business
 - 2.14.3 Mitsubishi Electric Corporation Grid-Forming Controllers Product and Services
 - 2.14.4 Mitsubishi Electric Corporation Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.14.5 Mitsubishi Electric Corporation Recent Developments/Updates
- 2.15 LS ELECTRIC Co., Ltd.
 - 2.15.1 LS ELECTRIC Co., Ltd. Details
 - 2.15.2 LS ELECTRIC Co., Ltd. Major Business
 - 2.15.3 LS ELECTRIC Co., Ltd. Grid-Forming Controllers Product and Services
 - 2.15.4 LS ELECTRIC Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.15.5 LS ELECTRIC Co., Ltd. Recent Developments/Updates
- 2.16 Sungrow Power Supply Co., Ltd.
 - 2.16.1 Sungrow Power Supply Co., Ltd. Details
 - 2.16.2 Sungrow Power Supply Co., Ltd. Major Business
 - 2.16.3 Sungrow Power Supply Co., Ltd. Grid-Forming Controllers Product and Services
 - 2.16.4 Sungrow Power Supply Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.16.5 Sungrow Power Supply Co., Ltd. Recent Developments/Updates
- 2.17 Huawei Digital Power Technologies Co., Ltd.
 - 2.17.1 Huawei Digital Power Technologies Co., Ltd. Details
 - 2.17.2 Huawei Digital Power Technologies Co., Ltd. Major Business

2.17.3 Huawei Digital Power Technologies Co., Ltd. Grid-Forming Controllers Product and Services

2.17.4 Huawei Digital Power Technologies Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.17.5 Huawei Digital Power Technologies Co., Ltd. Recent Developments/Updates

2.18 Sineng Electric Co., Ltd.

2.18.1 Sineng Electric Co., Ltd. Details

2.18.2 Sineng Electric Co., Ltd. Major Business

2.18.3 Sineng Electric Co., Ltd. Grid-Forming Controllers Product and Services

2.18.4 Sineng Electric Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.18.5 Sineng Electric Co., Ltd. Recent Developments/Updates

2.19 NR Electric Co., Ltd.

2.19.1 NR Electric Co., Ltd. Details

2.19.2 NR Electric Co., Ltd. Major Business

2.19.3 NR Electric Co., Ltd. Grid-Forming Controllers Product and Services

2.19.4 NR Electric Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.19.5 NR Electric Co., Ltd. Recent Developments/Updates

2.20 Shenzhen KSTAR Science and Technology Co., Ltd.

2.20.1 Shenzhen KSTAR Science and Technology Co., Ltd. Details

2.20.2 Shenzhen KSTAR Science and Technology Co., Ltd. Major Business

2.20.3 Shenzhen KSTAR Science and Technology Co., Ltd. Grid-Forming Controllers Product and Services

2.20.4 Shenzhen KSTAR Science and Technology Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.20.5 Shenzhen KSTAR Science and Technology Co., Ltd. Recent Developments/Updates

2.21 Kehua Data Co., Ltd.

2.21.1 Kehua Data Co., Ltd. Details

2.21.2 Kehua Data Co., Ltd. Major Business

2.21.3 Kehua Data Co., Ltd. Grid-Forming Controllers Product and Services

2.21.4 Kehua Data Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.21.5 Kehua Data Co., Ltd. Recent Developments/Updates

2.22 CRRC Zhuzhou Institute Co., Ltd.

2.22.1 CRRC Zhuzhou Institute Co., Ltd. Details

2.22.2 CRRC Zhuzhou Institute Co., Ltd. Major Business

2.22.3 CRRC Zhuzhou Institute Co., Ltd. Grid-Forming Controllers Product and

Services

2.22.4 CRRC Zhuzhou Institute Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.22.5 CRRC Zhuzhou Institute Co., Ltd. Recent Developments/Updates

2.23 Shenzhen Hopewind Electric Co., Ltd.

2.23.1 Shenzhen Hopewind Electric Co., Ltd. Details

2.23.2 Shenzhen Hopewind Electric Co., Ltd. Major Business

2.23.3 Shenzhen Hopewind Electric Co., Ltd. Grid-Forming Controllers Product and Services

2.23.4 Shenzhen Hopewind Electric Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.23.5 Shenzhen Hopewind Electric Co., Ltd. Recent Developments/Updates

2.24 Beijing HyperStrong Technology Co., Ltd.

2.24.1 Beijing HyperStrong Technology Co., Ltd. Details

2.24.2 Beijing HyperStrong Technology Co., Ltd. Major Business

2.24.3 Beijing HyperStrong Technology Co., Ltd. Grid-Forming Controllers Product and Services

2.24.4 Beijing HyperStrong Technology Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.24.5 Beijing HyperStrong Technology Co., Ltd. Recent Developments/Updates

2.25 XJ Electric Co., Ltd.

2.25.1 XJ Electric Co., Ltd. Details

2.25.2 XJ Electric Co., Ltd. Major Business

2.25.3 XJ Electric Co., Ltd. Grid-Forming Controllers Product and Services

2.25.4 XJ Electric Co., Ltd. Grid-Forming Controllers Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.25.5 XJ Electric Co., Ltd. Recent Developments/Updates

3 COMPETITIVE ENVIRONMENT: GRID-FORMING CONTROLLERS BY MANUFACTURER

3.1 Global Grid-Forming Controllers Sales Quantity by Manufacturer (2021-2026)

3.2 Global Grid-Forming Controllers Revenue by Manufacturer (2021-2026)

3.3 Global Grid-Forming Controllers Average Price by Manufacturer (2021-2026)

3.4 Market Share Analysis (2025)

3.4.1 Producer Shipments of Grid-Forming Controllers by Manufacturer Revenue (\$MM) and Market Share (%): 2025

3.4.2 Top 3 Grid-Forming Controllers Manufacturer Market Share in 2025

3.4.3 Top 6 Grid-Forming Controllers Manufacturer Market Share in 2025

- 3.5 Grid-Forming Controllers Market: Overall Company Footprint Analysis
 - 3.5.1 Grid-Forming Controllers Market: Region Footprint
 - 3.5.2 Grid-Forming Controllers Market: Company Product Type Footprint
 - 3.5.3 Grid-Forming Controllers Market: Company Product Application Footprint
- 3.6 New Market Entrants and Barriers to Market Entry
- 3.7 Mergers, Acquisition, Agreements, and Collaborations

4 CONSUMPTION ANALYSIS BY REGION

- 4.1 Global Grid-Forming Controllers Market Size by Region
 - 4.1.1 Global Grid-Forming Controllers Sales Quantity by Region (2021-2032)
 - 4.1.2 Global Grid-Forming Controllers Consumption Value by Region (2021-2032)
 - 4.1.3 Global Grid-Forming Controllers Average Price by Region (2021-2032)
- 4.2 North America Grid-Forming Controllers Consumption Value (2021-2032)
- 4.3 Europe Grid-Forming Controllers Consumption Value (2021-2032)
- 4.4 Asia-Pacific Grid-Forming Controllers Consumption Value (2021-2032)
- 4.5 South America Grid-Forming Controllers Consumption Value (2021-2032)
- 4.6 Middle East & Africa Grid-Forming Controllers Consumption Value (2021-2032)

5 MARKET SEGMENT BY TYPE

- 5.1 Global Grid-Forming Controllers Sales Quantity by Type (2021-2032)
- 5.2 Global Grid-Forming Controllers Consumption Value by Type (2021-2032)
- 5.3 Global Grid-Forming Controllers Average Price by Type (2021-2032)

6 MARKET SEGMENT BY APPLICATION

- 6.1 Global Grid-Forming Controllers Sales Quantity by Application (2021-2032)
- 6.2 Global Grid-Forming Controllers Consumption Value by Application (2021-2032)
- 6.3 Global Grid-Forming Controllers Average Price by Application (2021-2032)

7 NORTH AMERICA

- 7.1 North America Grid-Forming Controllers Sales Quantity by Type (2021-2032)
- 7.2 North America Grid-Forming Controllers Sales Quantity by Application (2021-2032)
- 7.3 North America Grid-Forming Controllers Market Size by Country
 - 7.3.1 North America Grid-Forming Controllers Sales Quantity by Country (2021-2032)
 - 7.3.2 North America Grid-Forming Controllers Consumption Value by Country (2021-2032)

7.3.3 United States Market Size and Forecast (2021-2032)

7.3.4 Canada Market Size and Forecast (2021-2032)

7.3.5 Mexico Market Size and Forecast (2021-2032)

8 EUROPE

8.1 Europe Grid-Forming Controllers Sales Quantity by Type (2021-2032)

8.2 Europe Grid-Forming Controllers Sales Quantity by Application (2021-2032)

8.3 Europe Grid-Forming Controllers Market Size by Country

8.3.1 Europe Grid-Forming Controllers Sales Quantity by Country (2021-2032)

8.3.2 Europe Grid-Forming Controllers Consumption Value by Country (2021-2032)

8.3.3 Germany Market Size and Forecast (2021-2032)

8.3.4 France Market Size and Forecast (2021-2032)

8.3.5 United Kingdom Market Size and Forecast (2021-2032)

8.3.6 Russia Market Size and Forecast (2021-2032)

8.3.7 Italy Market Size and Forecast (2021-2032)

9 ASIA-PACIFIC

9.1 Asia-Pacific Grid-Forming Controllers Sales Quantity by Type (2021-2032)

9.2 Asia-Pacific Grid-Forming Controllers Sales Quantity by Application (2021-2032)

9.3 Asia-Pacific Grid-Forming Controllers Market Size by Region

9.3.1 Asia-Pacific Grid-Forming Controllers Sales Quantity by Region (2021-2032)

9.3.2 Asia-Pacific Grid-Forming Controllers Consumption Value by Region
(2021-2032)

9.3.3 China Market Size and Forecast (2021-2032)

9.3.4 Japan Market Size and Forecast (2021-2032)

9.3.5 South Korea Market Size and Forecast (2021-2032)

9.3.6 India Market Size and Forecast (2021-2032)

9.3.7 Southeast Asia Market Size and Forecast (2021-2032)

9.3.8 Australia Market Size and Forecast (2021-2032)

10 SOUTH AMERICA

10.1 South America Grid-Forming Controllers Sales Quantity by Type (2021-2032)

10.2 South America Grid-Forming Controllers Sales Quantity by Application
(2021-2032)

10.3 South America Grid-Forming Controllers Market Size by Country

10.3.1 South America Grid-Forming Controllers Sales Quantity by Country

(2021-2032)

10.3.2 South America Grid-Forming Controllers Consumption Value by Country

(2021-2032)

10.3.3 Brazil Market Size and Forecast (2021-2032)

10.3.4 Argentina Market Size and Forecast (2021-2032)

11 MIDDLE EAST & AFRICA

11.1 Middle East & Africa Grid-Forming Controllers Sales Quantity by Type (2021-2032)

11.2 Middle East & Africa Grid-Forming Controllers Sales Quantity by Application

(2021-2032)

11.3 Middle East & Africa Grid-Forming Controllers Market Size by Country

11.3.1 Middle East & Africa Grid-Forming Controllers Sales Quantity by Country

(2021-2032)

11.3.2 Middle East & Africa Grid-Forming Controllers Consumption Value by Country

(2021-2032)

11.3.3 Turkey Market Size and Forecast (2021-2032)

11.3.4 Egypt Market Size and Forecast (2021-2032)

11.3.5 Saudi Arabia Market Size and Forecast (2021-2032)

11.3.6 South Africa Market Size and Forecast (2021-2032)

12 MARKET DYNAMICS

12.1 Grid-Forming Controllers Market Drivers

12.2 Grid-Forming Controllers Market Restraints

12.3 Grid-Forming Controllers Trends Analysis

12.4 Porters Five Forces Analysis

12.4.1 Threat of New Entrants

12.4.2 Bargaining Power of Suppliers

12.4.3 Bargaining Power of Buyers

12.4.4 Threat of Substitutes

12.4.5 Competitive Rivalry

13 RAW MATERIAL AND INDUSTRY CHAIN

13.1 Raw Material of Grid-Forming Controllers and Key Manufacturers

13.2 Manufacturing Costs Percentage of Grid-Forming Controllers

13.3 Grid-Forming Controllers Production Process

13.4 Industry Value Chain Analysis

14 SHIPMENTS BY DISTRIBUTION CHANNEL

14.1 Sales Channel

14.1.1 Direct to End-User

14.1.2 Distributors

14.2 Grid-Forming Controllers Typical Distributors

14.3 Grid-Forming Controllers Typical Customers

15 RESEARCH FINDINGS AND CONCLUSION

16 APPENDIX

16.1 Methodology

16.2 Research Process and Data Source

16.3 Disclaimer

List Of Tables

LIST OF TABLES

Table 1. Global Grid-Forming Controllers Consumption Value by Type, (USD Million), 2021 & 2025 & 2032

Table 2. Global Grid-Forming Controllers Consumption Value by Controller Architecture, (USD Million), 2021 & 2025 & 2032

Table 3. Global Grid-Forming Controllers Consumption Value by Supported Plant Capacity, (USD Million), 2021 & 2025 & 2032

Table 4. Global Grid-Forming Controllers Consumption Value by Application, (USD Million), 2021 & 2025 & 2032

Table 5. SMA Solar Technology AG Basic Information, Manufacturing Base and Competitors

Table 6. SMA Solar Technology AG Major Business

Table 7. SMA Solar Technology AG Grid-Forming Controllers Product and Services

Table 8. SMA Solar Technology AG Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 9. SMA Solar Technology AG Recent Developments/Updates

Table 10. Hitachi Energy Ltd. Basic Information, Manufacturing Base and Competitors

Table 11. Hitachi Energy Ltd. Major Business

Table 12. Hitachi Energy Ltd. Grid-Forming Controllers Product and Services

Table 13. Hitachi Energy Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 14. Hitachi Energy Ltd. Recent Developments/Updates

Table 15. Siemens Energy AG Basic Information, Manufacturing Base and Competitors

Table 16. Siemens Energy AG Major Business

Table 17. Siemens Energy AG Grid-Forming Controllers Product and Services

Table 18. Siemens Energy AG Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 19. Siemens Energy AG Recent Developments/Updates

Table 20. GE Vernova Inc. Basic Information, Manufacturing Base and Competitors

Table 21. GE Vernova Inc. Major Business

Table 22. GE Vernova Inc. Grid-Forming Controllers Product and Services

Table 23. GE Vernova Inc. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 24. GE Vernova Inc. Recent Developments/Updates

Table 25. Schneider Electric SE Basic Information, Manufacturing Base and Competitors

Table 26. Schneider Electric SE Major Business

Table 27. Schneider Electric SE Grid-Forming Controllers Product and Services

Table 28. Schneider Electric SE Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 29. Schneider Electric SE Recent Developments/Updates

Table 30. ABB Ltd. Basic Information, Manufacturing Base and Competitors

Table 31. ABB Ltd. Major Business

Table 32. ABB Ltd. Grid-Forming Controllers Product and Services

Table 33. ABB Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 34. ABB Ltd. Recent Developments/Updates

Table 35. Wärtsilä Corporation Basic Information, Manufacturing Base and Competitors

Table 36. Wärtsilä Corporation Major Business

Table 37. Wärtsilä Corporation Grid-Forming Controllers Product and Services

Table 38. Wärtsilä Corporation Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 39. Wärtsilä Corporation Recent Developments/Updates

Table 40. Fluence Energy, Inc. Basic Information, Manufacturing Base and Competitors

Table 41. Fluence Energy, Inc. Major Business

Table 42. Fluence Energy, Inc. Grid-Forming Controllers Product and Services

Table 43. Fluence Energy, Inc. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 44. Fluence Energy, Inc. Recent Developments/Updates

Table 45. Tesla, Inc. Basic Information, Manufacturing Base and Competitors

Table 46. Tesla, Inc. Major Business

Table 47. Tesla, Inc. Grid-Forming Controllers Product and Services

Table 48. Tesla, Inc. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 49. Tesla, Inc. Recent Developments/Updates

Table 50. Nidec Conversion Basic Information, Manufacturing Base and Competitors

Table 51. Nidec Conversion Major Business

Table 52. Nidec Conversion Grid-Forming Controllers Product and Services

Table 53. Nidec Conversion Grid-Forming Controllers Sales Quantity (K Units), Average

Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 54. Nidec Conversion Recent Developments/Updates

Table 55. Ingeteam S.A. Basic Information, Manufacturing Base and Competitors

Table 56. Ingeteam S.A. Major Business

Table 57. Ingeteam S.A. Grid-Forming Controllers Product and Services

Table 58. Ingeteam S.A. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 59. Ingeteam S.A. Recent Developments/Updates

Table 60. Power Electronics S.L. Basic Information, Manufacturing Base and Competitors

Table 61. Power Electronics S.L. Major Business

Table 62. Power Electronics S.L. Grid-Forming Controllers Product and Services

Table 63. Power Electronics S.L. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 64. Power Electronics S.L. Recent Developments/Updates

Table 65. Toshiba Energy Systems & Solutions Corporation Basic Information, Manufacturing Base and Competitors

Table 66. Toshiba Energy Systems & Solutions Corporation Major Business

Table 67. Toshiba Energy Systems & Solutions Corporation Grid-Forming Controllers Product and Services

Table 68. Toshiba Energy Systems & Solutions Corporation Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 69. Toshiba Energy Systems & Solutions Corporation Recent Developments/Updates

Table 70. Mitsubishi Electric Corporation Basic Information, Manufacturing Base and Competitors

Table 71. Mitsubishi Electric Corporation Major Business

Table 72. Mitsubishi Electric Corporation Grid-Forming Controllers Product and Services

Table 73. Mitsubishi Electric Corporation Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 74. Mitsubishi Electric Corporation Recent Developments/Updates

Table 75. LS ELECTRIC Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 76. LS ELECTRIC Co., Ltd. Major Business

Table 77. LS ELECTRIC Co., Ltd. Grid-Forming Controllers Product and Services

Table 78. LS ELECTRIC Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 79. LS ELECTRIC Co., Ltd. Recent Developments/Updates

Table 80. Sungrow Power Supply Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 81. Sungrow Power Supply Co., Ltd. Major Business

Table 82. Sungrow Power Supply Co., Ltd. Grid-Forming Controllers Product and Services

Table 83. Sungrow Power Supply Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 84. Sungrow Power Supply Co., Ltd. Recent Developments/Updates

Table 85. Huawei Digital Power Technologies Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 86. Huawei Digital Power Technologies Co., Ltd. Major Business

Table 87. Huawei Digital Power Technologies Co., Ltd. Grid-Forming Controllers Product and Services

Table 88. Huawei Digital Power Technologies Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 89. Huawei Digital Power Technologies Co., Ltd. Recent Developments/Updates

Table 90. Sineng Electric Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 91. Sineng Electric Co., Ltd. Major Business

Table 92. Sineng Electric Co., Ltd. Grid-Forming Controllers Product and Services

Table 93. Sineng Electric Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 94. Sineng Electric Co., Ltd. Recent Developments/Updates

Table 95. NR Electric Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 96. NR Electric Co., Ltd. Major Business

Table 97. NR Electric Co., Ltd. Grid-Forming Controllers Product and Services

Table 98. NR Electric Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 99. NR Electric Co., Ltd. Recent Developments/Updates

Table 100. Shenzhen KSTAR Science and Technology Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 101. Shenzhen KSTAR Science and Technology Co., Ltd. Major Business

Table 102. Shenzhen KSTAR Science and Technology Co., Ltd. Grid-Forming
Controllers Product and Services

Table 103. Shenzhen KSTAR Science and Technology Co., Ltd. Grid-Forming
Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million),
Gross Margin and Market Share (2021-2026)

Table 104. Shenzhen KSTAR Science and Technology Co., Ltd. Recent
Developments/Updates

Table 105. Kehua Data Co., Ltd. Basic Information, Manufacturing Base and
Competitors

Table 106. Kehua Data Co., Ltd. Major Business

Table 107. Kehua Data Co., Ltd. Grid-Forming Controllers Product and Services

Table 108. Kehua Data Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units),
Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share
(2021-2026)

Table 109. Kehua Data Co., Ltd. Recent Developments/Updates

Table 110. CRRC Zhuzhou Institute Co., Ltd. Basic Information, Manufacturing Base
and Competitors

Table 111. CRRC Zhuzhou Institute Co., Ltd. Major Business

Table 112. CRRC Zhuzhou Institute Co., Ltd. Grid-Forming Controllers Product and
Services

Table 113. CRRC Zhuzhou Institute Co., Ltd. Grid-Forming Controllers Sales Quantity
(K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market
Share (2021-2026)

Table 114. CRRC Zhuzhou Institute Co., Ltd. Recent Developments/Updates

Table 115. Shenzhen Hopewind Electric Co., Ltd. Basic Information, Manufacturing
Base and Competitors

Table 116. Shenzhen Hopewind Electric Co., Ltd. Major Business

Table 117. Shenzhen Hopewind Electric Co., Ltd. Grid-Forming Controllers Product and
Services

Table 118. Shenzhen Hopewind Electric Co., Ltd. Grid-Forming Controllers Sales
Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and
Market Share (2021-2026)

Table 119. Shenzhen Hopewind Electric Co., Ltd. Recent Developments/Updates

Table 120. Beijing HyperStrong Technology Co., Ltd. Basic Information, Manufacturing
Base and Competitors

Table 121. Beijing HyperStrong Technology Co., Ltd. Major Business

Table 122. Beijing HyperStrong Technology Co., Ltd. Grid-Forming Controllers Product
and Services

Table 123. Beijing HyperStrong Technology Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 124. Beijing HyperStrong Technology Co., Ltd. Recent Developments/Updates

Table 125. XJ Electric Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 126. XJ Electric Co., Ltd. Major Business

Table 127. XJ Electric Co., Ltd. Grid-Forming Controllers Product and Services

Table 128. XJ Electric Co., Ltd. Grid-Forming Controllers Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 129. XJ Electric Co., Ltd. Recent Developments/Updates

Table 130. Global Grid-Forming Controllers Sales Quantity by Manufacturer (2021-2026) & (K Units)

Table 131. Global Grid-Forming Controllers Revenue by Manufacturer (2021-2026) & (USD Million)

Table 132. Global Grid-Forming Controllers Average Price by Manufacturer (2021-2026) & (US\$/Unit)

Table 133. Market Position of Manufacturers in Grid-Forming Controllers, (Tier 1, Tier 2, and Tier 3), Based on Revenue in 2025

Table 134. Head Office and Grid-Forming Controllers Production Site of Key Manufacturer

Table 135. Grid-Forming Controllers Market: Company Product Type Footprint

Table 136. Grid-Forming Controllers Market: Company Product Application Footprint

Table 137. Grid-Forming Controllers New Market Entrants and Barriers to Market Entry

Table 138. Grid-Forming Controllers Mergers, Acquisition, Agreements, and Collaborations

Table 139. Global Grid-Forming Controllers Consumption Value by Region (2021-2025-2032) & (USD Million) & CAGR

Table 140. Global Grid-Forming Controllers Sales Quantity by Region (2021-2026) & (K Units)

Table 141. Global Grid-Forming Controllers Sales Quantity by Region (2027-2032) & (K Units)

Table 142. Global Grid-Forming Controllers Consumption Value by Region (2021-2026) & (USD Million)

Table 143. Global Grid-Forming Controllers Consumption Value by Region (2027-2032) & (USD Million)

Table 144. Global Grid-Forming Controllers Average Price by Region (2021-2026) & (US\$/Unit)

Table 145. Global Grid-Forming Controllers Average Price by Region (2027-2032) &

(US\$/Unit)

Table 146. Global Grid-Forming Controllers Sales Quantity by Type (2021-2026) & (K Units)

Table 147. Global Grid-Forming Controllers Sales Quantity by Type (2027-2032) & (K Units)

Table 148. Global Grid-Forming Controllers Consumption Value by Type (2021-2026) & (USD Million)

Table 149. Global Grid-Forming Controllers Consumption Value by Type (2027-2032) & (USD Million)

Table 150. Global Grid-Forming Controllers Average Price by Type (2021-2026) & (US\$/Unit)

Table 151. Global Grid-Forming Controllers Average Price by Type (2027-2032) & (US\$/Unit)

Table 152. Global Grid-Forming Controllers Sales Quantity by Application (2021-2026) & (K Units)

Table 153. Global Grid-Forming Controllers Sales Quantity by Application (2027-2032) & (K Units)

Table 154. Global Grid-Forming Controllers Consumption Value by Application (2021-2026) & (USD Million)

Table 155. Global Grid-Forming Controllers Consumption Value by Application (2027-2032) & (USD Million)

Table 156. Global Grid-Forming Controllers Average Price by Application (2021-2026) & (US\$/Unit)

Table 157. Global Grid-Forming Controllers Average Price by Application (2027-2032) & (US\$/Unit)

Table 158. North America Grid-Forming Controllers Sales Quantity by Type (2021-2026) & (K Units)

Table 159. North America Grid-Forming Controllers Sales Quantity by Type (2027-2032) & (K Units)

Table 160. North America Grid-Forming Controllers Sales Quantity by Application (2021-2026) & (K Units)

Table 161. North America Grid-Forming Controllers Sales Quantity by Application (2027-2032) & (K Units)

Table 162. North America Grid-Forming Controllers Sales Quantity by Country (2021-2026) & (K Units)

Table 163. North America Grid-Forming Controllers Sales Quantity by Country (2027-2032) & (K Units)

Table 164. North America Grid-Forming Controllers Consumption Value by Country (2021-2026) & (USD Million)

Table 165. North America Grid-Forming Controllers Consumption Value by Country (2027-2032) & (USD Million)

Table 166. Europe Grid-Forming Controllers Sales Quantity by Type (2021-2026) & (K Units)

Table 167. Europe Grid-Forming Controllers Sales Quantity by Type (2027-2032) & (K Units)

Table 168. Europe Grid-Forming Controllers Sales Quantity by Application (2021-2026) & (K Units)

Table 169. Europe Grid-Forming Controllers Sales Quantity by Application (2027-2032) & (K Units)

Table 170. Europe Grid-Forming Controllers Sales Quantity by Country (2021-2026) & (K Units)

Table 171. Europe Grid-Forming Controllers Sales Quantity by Country (2027-2032) & (K Units)

Table 172. Europe Grid-Forming Controllers Consumption Value by Country (2021-2026) & (USD Million)

Table 173. Europe Grid-Forming Controllers Consumption Value by Country (2027-2032) & (USD Million)

Table 174. Asia-Pacific Grid-Forming Controllers Sales Quantity by Type (2021-2026) & (K Units)

Table 175. Asia-Pacific Grid-Forming Controllers Sales Quantity by Type (2027-2032) & (K Units)

Table 176. Asia-Pacific Grid-Forming Controllers Sales Quantity by Application (2021-2026) & (K Units)

Table 177. Asia-Pacific Grid-Forming Controllers Sales Quantity by Application (2027-2032) & (K Units)

Table 178. Asia-Pacific Grid-Forming Controllers Sales Quantity by Region (2021-2026) & (K Units)

Table 179. Asia-Pacific Grid-Forming Controllers Sales Quantity by Region (2027-2032) & (K Units)

Table 180. Asia-Pacific Grid-Forming Controllers Consumption Value by Region (2021-2026) & (USD Million)

Table 181. Asia-Pacific Grid-Forming Controllers Consumption Value by Region (2027-2032) & (USD Million)

Table 182. South America Grid-Forming Controllers Sales Quantity by Type (2021-2026) & (K Units)

Table 183. South America Grid-Forming Controllers Sales Quantity by Type (2027-2032) & (K Units)

Table 184. South America Grid-Forming Controllers Sales Quantity by Application

(2021-2026) & (K Units)

Table 185. South America Grid-Forming Controllers Sales Quantity by Application

(2027-2032) & (K Units)

Table 186. South America Grid-Forming Controllers Sales Quantity by Country

(2021-2026) & (K Units)

Table 187. South America Grid-Forming Controllers Sales Quantity by Country

(2027-2032) & (K Units)

Table 188. South America Grid-Forming Controllers Consumption Value by Country

(2021-2026) & (USD Million)

Table 189. South America Grid-Forming Controllers Consumption Value by Country

(2027-2032) & (USD Million)

Table 190. Middle East & Africa Grid-Forming Controllers Sales Quantity by Type

(2021-2026) & (K Units)

Table 191. Middle East & Africa Grid-Forming Controllers Sales Quantity by Type

(2027-2032) & (K Units)

Table 192. Middle East & Africa Grid-Forming Controllers Sales Quantity by Application

(2021-2026) & (K Units)

Table 193. Middle East & Africa Grid-Forming Controllers Sales Quantity by Application

(2027-2032) & (K Units)

Table 194. Middle East & Africa Grid-Forming Controllers Sales Quantity by Country

(2021-2026) & (K Units)

Table 195. Middle East & Africa Grid-Forming Controllers Sales Quantity by Country

(2027-2032) & (K Units)

Table 196. Middle East & Africa Grid-Forming Controllers Consumption Value by Country (2021-2026) & (USD Million)

Table 197. Middle East & Africa Grid-Forming Controllers Consumption Value by Country (2027-2032) & (USD Million)

Table 198. Grid-Forming Controllers Raw Material

Table 199. Key Manufacturers of Grid-Forming Controllers Raw Materials

Table 200. Grid-Forming Controllers Typical Distributors

Table 201. Grid-Forming Controllers Typical Customers

List Of Figures

LIST OF FIGURES

Figure 1. Grid-Forming Controllers Picture

Figure 2. Global Grid-Forming Controllers Revenue by Type, (USD Million), 2021 & 2025 & 2032

Figure 3. Global Grid-Forming Controllers Revenue Market Share by Type in 2025

Figure 4. Droop Control-based Controllers Examples

Figure 5. Virtual Synchronous Machine Controllers Examples

Figure 6. Virtual Oscillator Control-based Controllers Examples

Figure 7. Global Grid-Forming Controllers Revenue by Controller Architecture, (USD Million), 2021 & 2025 & 2032

Figure 8. Global Grid-Forming Controllers Revenue Market Share by Controller Architecture in 2025

Figure 9. Centralized Plant Controllers Examples

Figure 10. Distributed Unit Controllers Examples

Figure 11. Hierarchical Coordinated Controllers Examples

Figure 12. Global Grid-Forming Controllers Revenue by Supported Plant Capacity, (USD Million), 2021 & 2025 & 2032

Figure 13. Global Grid-Forming Controllers Revenue Market Share by Supported Plant Capacity in 2025

Figure 14. Small-scale(?10 MW) Examples

Figure 15. Medium-scale(>10–100 MW) Examples

Figure 16. Large-scale(>100 MW) Examples

Figure 17. Global Grid-Forming Controllers Consumption Value by Application, (USD Million), 2021 & 2025 & 2032

Figure 18. Global Grid-Forming Controllers Revenue Market Share by Application in 2025

Figure 19. Voltage and Frequency Formation Examples

Figure 20. Synthetic Inertia and Fast Frequency Response Examples

Figure 21. Black Start and Weak-grid Stabilization Examples

Figure 22. Other Examples

Figure 23. Global Grid-Forming Controllers Consumption Value, (USD Million): 2021 & 2025 & 2032

Figure 24. Global Grid-Forming Controllers Consumption Value and Forecast (2021-2032) & (USD Million)

Figure 25. Global Grid-Forming Controllers Sales Quantity (2021-2032) & (K Units)

Figure 26. Global Grid-Forming Controllers Price (2021-2032) & (US\$/Unit)

Figure 27. Global Grid-Forming Controllers Sales Quantity Market Share by Manufacturer in 2025

Figure 28. Global Grid-Forming Controllers Revenue Market Share by Manufacturer in 2025

Figure 29. Producer Shipments of Grid-Forming Controllers by Manufacturer Sales (\$MM) and Market Share (%): 2025

Figure 30. Top 3 Grid-Forming Controllers Manufacturer (Revenue) Market Share in 2025

Figure 31. Top 6 Grid-Forming Controllers Manufacturer (Revenue) Market Share in 2025

Figure 32. Global Grid-Forming Controllers Sales Quantity Market Share by Region (2021-2032)

Figure 33. Global Grid-Forming Controllers Consumption Value Market Share by Region (2021-2032)

Figure 34. North America Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 35. Europe Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 36. Asia-Pacific Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 37. South America Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 38. Middle East & Africa Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 39. Global Grid-Forming Controllers Sales Quantity Market Share by Type (2021-2032)

Figure 40. Global Grid-Forming Controllers Consumption Value Market Share by Type (2021-2032)

Figure 41. Global Grid-Forming Controllers Average Price by Type (2021-2032) & (US\$/Unit)

Figure 42. Global Grid-Forming Controllers Sales Quantity Market Share by Application (2021-2032)

Figure 43. Global Grid-Forming Controllers Revenue Market Share by Application (2021-2032)

Figure 44. Global Grid-Forming Controllers Average Price by Application (2021-2032) & (US\$/Unit)

Figure 45. North America Grid-Forming Controllers Sales Quantity Market Share by Type (2021-2032)

Figure 46. North America Grid-Forming Controllers Sales Quantity Market Share by

Application (2021-2032)

Figure 47. North America Grid-Forming Controllers Sales Quantity Market Share by Country (2021-2032)

Figure 48. North America Grid-Forming Controllers Consumption Value Market Share by Country (2021-2032)

Figure 49. United States Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 50. Canada Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 51. Mexico Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 52. Europe Grid-Forming Controllers Sales Quantity Market Share by Type (2021-2032)

Figure 53. Europe Grid-Forming Controllers Sales Quantity Market Share by Application (2021-2032)

Figure 54. Europe Grid-Forming Controllers Sales Quantity Market Share by Country (2021-2032)

Figure 55. Europe Grid-Forming Controllers Consumption Value Market Share by Country (2021-2032)

Figure 56. Germany Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 57. France Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 58. United Kingdom Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 59. Russia Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 60. Italy Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 61. Asia-Pacific Grid-Forming Controllers Sales Quantity Market Share by Type (2021-2032)

Figure 62. Asia-Pacific Grid-Forming Controllers Sales Quantity Market Share by Application (2021-2032)

Figure 63. Asia-Pacific Grid-Forming Controllers Sales Quantity Market Share by Region (2021-2032)

Figure 64. Asia-Pacific Grid-Forming Controllers Consumption Value Market Share by Region (2021-2032)

Figure 65. China Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 66. Japan Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 67. South Korea Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 68. India Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 69. Southeast Asia Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 70. Australia Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 71. South America Grid-Forming Controllers Sales Quantity Market Share by Type (2021-2032)

Figure 72. South America Grid-Forming Controllers Sales Quantity Market Share by Application (2021-2032)

Figure 73. South America Grid-Forming Controllers Sales Quantity Market Share by Country (2021-2032)

Figure 74. South America Grid-Forming Controllers Consumption Value Market Share by Country (2021-2032)

Figure 75. Brazil Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 76. Argentina Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 77. Middle East & Africa Grid-Forming Controllers Sales Quantity Market Share by Type (2021-2032)

Figure 78. Middle East & Africa Grid-Forming Controllers Sales Quantity Market Share by Application (2021-2032)

Figure 79. Middle East & Africa Grid-Forming Controllers Sales Quantity Market Share by Country (2021-2032)

Figure 80. Middle East & Africa Grid-Forming Controllers Consumption Value Market Share by Country (2021-2032)

Figure 81. Turkey Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 82. Egypt Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 83. Saudi Arabia Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 84. South Africa Grid-Forming Controllers Consumption Value (2021-2032) & (USD Million)

Figure 85. Grid-Forming Controllers Market Drivers

- Figure 86. Grid-Forming Controllers Market Restraints
- Figure 87. Grid-Forming Controllers Market Trends
- Figure 88. Porters Five Forces Analysis
- Figure 89. Manufacturing Cost Structure Analysis of Grid-Forming Controllers in 2025
- Figure 90. Manufacturing Process Analysis of Grid-Forming Controllers
- Figure 91. Grid-Forming Controllers Industrial Chain
- Figure 92. Sales Channel: Direct to End-User vs Distributors
- Figure 93. Direct Channel Pros & Cons
- Figure 94. Indirect Channel Pros & Cons
- Figure 95. Methodology
- Figure 96. Research Process and Data Source

I would like to order

Product name: Global Grid-Forming Controllers Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

Product link: <https://marketpublishers.com/r/GEEA577AA6E5EN.html>

Price: US\$ 3,480.00 (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/GEEA577AA6E5EN.html>