

Global PV Charge Controller Supply, Demand and Key Producers, 2026-2032

<https://marketpublishers.com/r/G88F26923BA4EN.html>

Date: June 2026

Pages: 130

Price: US\$ 4,480.00 (Single User License)

ID: G88F26923BA4EN

Abstracts

The global PV Charge Controller market size is expected to reach \$ 12561 million by 2032, rising at a market growth of 18.7% CAGR during the forecast period (2026-2032).

PV Charge Controller, fully named as battery charge controller for photovoltaic systems, is a core power electronic device that connects solar panels to batteries in off-grid and energy storage photovoltaic systems. It is not a simple switching device but rather the intelligent brain of the entire independent power generation system. Its core function is to precisely manage the flow and state of electrical energy, utilizing complex topologies and control algorithms to prevent battery lifespan degradation due to overcharging and over-discharging, while effectively blocking reverse current at night, ensuring stable system operation under various climatic conditions. This protection mechanism is particularly critical for remote area base stations, home power supply systems, and outdoor lighting facilities that rely on solar energy as their sole power source, directly determining battery service life and the project's return on investment cycle. With profound technological transformations in the industry, modern controllers have evolved from single voltage regulation functions into comprehensive platforms integrating maximum power point tracking, intelligent communication, and hybrid energy management.

Market Development Opportunities and Main Drivers

The global energy transition wave has injected strong momentum into the PV charge controller industry. Governments worldwide actively encourage residential and commercial solar system deployment through tax credits and equipment subsidies. Specialized funding support targeting off-grid applications such as rural electrification and communication base stations directly drives large-scale controller procurement.

Meanwhile, significant cost reductions in upstream photovoltaic modules and lithium battery energy storage systems make end users more willing to invest in intelligent controllers that significantly enhance energy harvesting efficiency. High-efficiency products represented by maximum power point tracking technology are accelerating the replacement of traditional pulse width modulation controllers, becoming the core engine of market growth.

Market Challenges and Risks

Despite promising prospects, the industry faces severe structural challenges. The high manufacturing costs and technical barriers of high-performance maximum power point tracking controllers create price walls that limit adoption in price-sensitive markets. As systems evolve toward higher voltage and larger capacity, controller thermal design, electromagnetic compatibility, and safety protection levels face more stringent technical tests. Furthermore, industry standard updates lag behind technological iterations, and some regional markets suffer from disorderly competition among low-quality, low-price products, disrupting healthy industrial ecosystems. Uncertainty in the international trade environment, particularly tariff policy fluctuations, poses potential risks for manufacturers dependent on global supply chains.

Downstream Demand Trends

In residential applications, users no longer settle for basic charge-discharge control but seek smart energy gateways with remote monitoring, load management, and grid-support capabilities. Commercial and industrial sectors focus on high power density and reliability, requiring controllers to achieve maintenance-free long-term operation in extreme environments such as mines and islands. Meanwhile, as lithium battery penetration rapidly increases in energy storage systems, demand surges for high-precision controllers specially adapted to lithium battery charge-discharge characteristics. Traditional lead-acid battery controllers can no longer meet the requirements of emerging chemical energy storage systems.

Regional Trends

The Asia-Pacific region dominates market growth, with China becoming a global industry hub due to its strong manufacturing capabilities and domestic PV installation demand, while rural electrification programs in India and other countries provide enormous incremental space. North American and European markets show preference for high value-added products, focusing on deep integration of technological iteration

with smart homes, with users willing to pay premiums for environmental certifications and premium brands. Meanwhile, regions with weak power infrastructure such as the Middle East, Africa, and Latin America maintain rigid growth in demand for off-grid and emergency support controllers, becoming blue ocean markets where major manufacturers actively compete.

This report studies the global PV Charge Controller production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for PV Charge Controller and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of PV Charge Controller that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global PV Charge Controller total production and demand, 2021-2032, (Units)

Global PV Charge Controller total production value, 2021-2032, (USD Million)

Global PV Charge Controller production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Units), (based on production site)

Global PV Charge Controller consumption by region & country, CAGR, 2021-2032 & (Units)

U.S. VS China: PV Charge Controller domestic production, consumption, key domestic manufacturers and share

Global PV Charge Controller production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Units)

Global PV Charge Controller production by Type, production, value, CAGR, 2021-2032, (USD Million) & (Units)

Global PV Charge Controller production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Units)

This report profiles key players in the global PV Charge Controller market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Morningstar^{US}?, Victron Energy^{NL}?, OutBack Power^{US}?, Studer Innotec^{CH}?, Phocos^{DE}?, MidNite Solar^{US}?, Schneider Electric^{FR}?, Sunforge LLC^{US}?, Western Co^{IT}?, Denryo^{JP}?, etc.

This report also provides key insights about market drivers, restraints, opportunities,

new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World PV Charge Controller market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Units) and average price (USD/Unit) by manufacturer, by Type, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global PV Charge Controller Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global PV Charge Controller Market, Segmentation by Type:

MPPT Charge Controller

PWM Charge Controller

On-Off Charge Controller

Global PV Charge Controller Market, Segmentation by Battery Type:

Lead-Acid Battery Charge Controller

Lithium Battery Charge Controller

Universal Battery Charge Controller

Global PV Charge Controller Market, Segmentation by Charging Method:

Single Stage Charge Controller

Two Stage Charge Controller

Three Stage Charge Controller

Global PV Charge Controller Market, Segmentation by Voltage Level:

Low Voltage Charge Controller

Medium Voltage Charge Controller

High Voltage Charge Controller

Global PV Charge Controller Market, Segmentation by Application:

Residential Power Supply

Industrial Power Supply

Telecom Base Station

Commercial Facility

Urban Management

Companies Profiled:

Morningstar?US?

Victron Energy?NL?

OutBack Power?US?

Studer Innotec?CH?

Phocos?DE?

MidNite Solar?US?

Schneider Electric?FR?

Sunforge LLC?US?

Western Co?IT?

Denryo?JP?

EPEVER?CN?

MUST Solar?CN?

Lumiax?CN?

SRNE?CN?

Key Questions Answered:

1. How big is the global PV Charge Controller market?
2. What is the demand of the global PV Charge Controller market?
3. What is the year over year growth of the global PV Charge Controller market?
4. What is the production and production value of the global PV Charge Controller

market?

5. Who are the key producers in the global PV Charge Controller market?

6. What are the growth factors driving the market demand?

Contents

1 SUPPLY SUMMARY

- 1.1 PV Charge Controller Introduction
- 1.2 World PV Charge Controller Supply & Forecast
 - 1.2.1 World PV Charge Controller Production Value (2021 & 2025 & 2032)
 - 1.2.2 World PV Charge Controller Production (2021-2032)
 - 1.2.3 World PV Charge Controller Pricing Trends (2021-2032)
- 1.3 World PV Charge Controller Production by Region (Based on Production Site)
 - 1.3.1 World PV Charge Controller Production Value by Region (2021-2032)
 - 1.3.2 World PV Charge Controller Production by Region (2021-2032)
 - 1.3.3 World PV Charge Controller Average Price by Region (2021-2032)
 - 1.3.4 North America PV Charge Controller Production (2021-2032)
 - 1.3.5 Europe PV Charge Controller Production (2021-2032)
 - 1.3.6 Asia PV Charge Controller Production (2021-2032)
 - 1.3.7 Latin America PV Charge Controller Production (2021-2032)
 - 1.3.8 Middle East PV Charge Controller Production (2021-2032)
- 1.4 Market Drivers, Restraints and Trends
 - 1.4.1 PV Charge Controller Market Drivers
 - 1.4.2 Factors Affecting Demand
 - 1.4.3 PV Charge Controller Major Market Trends

2 DEMAND SUMMARY

- 2.1 World PV Charge Controller Demand (2021-2032)
- 2.2 World PV Charge Controller Consumption by Region
 - 2.2.1 World PV Charge Controller Consumption by Region (2021-2026)
 - 2.2.2 World PV Charge Controller Consumption Forecast by Region (2027-2032)
- 2.3 United States PV Charge Controller Consumption (2021-2032)
- 2.4 China PV Charge Controller Consumption (2021-2032)
- 2.5 Europe PV Charge Controller Consumption (2021-2032)
- 2.6 Japan PV Charge Controller Consumption (2021-2032)
- 2.7 South Korea PV Charge Controller Consumption (2021-2032)
- 2.8 ASEAN PV Charge Controller Consumption (2021-2032)
- 2.9 India PV Charge Controller Consumption (2021-2032)

3 WORLD MANUFACTURERS COMPETITIVE ANALYSIS

- 3.1 World PV Charge Controller Production Value by Manufacturer (2021-2026)
- 3.2 World PV Charge Controller Production by Manufacturer (2021-2026)
- 3.3 World PV Charge Controller Average Price by Manufacturer (2021-2026)
- 3.4 PV Charge Controller Company Evaluation Quadrant
- 3.5 Industry Rank and Concentration Rate (CR)
 - 3.5.1 Global PV Charge Controller Industry Rank of Major Manufacturers
 - 3.5.2 Global Concentration Ratios (CR4) for PV Charge Controller in 2025
 - 3.5.3 Global Concentration Ratios (CR8) for PV Charge Controller in 2025
- 3.6 PV Charge Controller Market: Overall Company Footprint Analysis
 - 3.6.1 PV Charge Controller Market: Region Footprint
 - 3.6.2 PV Charge Controller Market: Company Product Type Footprint
 - 3.6.3 PV Charge Controller Market: Company Product Application Footprint
- 3.7 Competitive Environment
 - 3.7.1 Historical Structure of the Industry
 - 3.7.2 Barriers of Market Entry
 - 3.7.3 Factors of Competition
- 3.8 New Entrant and Capacity Expansion Plans
- 3.9 Mergers, Acquisition, Agreements, and Collaborations

4 UNITED STATES VS CHINA VS REST OF THE WORLD

- 4.1 United States VS China: PV Charge Controller Production Value Comparison
 - 4.1.1 United States VS China: PV Charge Controller Production Value Comparison (2021 & 2025 & 2032)
 - 4.1.2 United States VS China: PV Charge Controller Production Value Market Share Comparison (2021 & 2025 & 2032)
- 4.2 United States VS China: PV Charge Controller Production Comparison
 - 4.2.1 United States VS China: PV Charge Controller Production Comparison (2021 & 2025 & 2032)
 - 4.2.2 United States VS China: PV Charge Controller Production Market Share Comparison (2021 & 2025 & 2032)
- 4.3 United States VS China: PV Charge Controller Consumption Comparison
 - 4.3.1 United States VS China: PV Charge Controller Consumption Comparison (2021 & 2025 & 2032)
 - 4.3.2 United States VS China: PV Charge Controller Consumption Market Share Comparison (2021 & 2025 & 2032)
- 4.4 United States Based PV Charge Controller Manufacturers and Market Share, 2021-2026
 - 4.4.1 United States Based PV Charge Controller Manufacturers, Headquarters and

Production Site (States, Country)

4.4.2 United States Based Manufacturers PV Charge Controller Production Value (2021-2026)

4.4.3 United States Based Manufacturers PV Charge Controller Production (2021-2026)

4.5 China Based PV Charge Controller Manufacturers and Market Share

4.5.1 China Based PV Charge Controller Manufacturers, Headquarters and Production Site (Province, Country)

4.5.2 China Based Manufacturers PV Charge Controller Production Value (2021-2026)

4.5.3 China Based Manufacturers PV Charge Controller Production (2021-2026)

4.6 Rest of World Based PV Charge Controller Manufacturers and Market Share, 2021-2026

4.6.1 Rest of World Based PV Charge Controller Manufacturers, Headquarters and Production Site (State, Country)

4.6.2 Rest of World Based Manufacturers PV Charge Controller Production Value (2021-2026)

4.6.3 Rest of World Based Manufacturers PV Charge Controller Production (2021-2026)

5 MARKET ANALYSIS BY TYPE

5.1 World PV Charge Controller Market Size Overview by Type: 2021 VS 2025 VS 2032

5.2 Segment Introduction by Type

5.2.1 MPPT Charge Controller

5.2.2 PWM Charge Controller

5.2.3 On-Off Charge Controller

5.3 Market Segment by Type

5.3.1 World PV Charge Controller Production by Type (2021-2032)

5.3.2 World PV Charge Controller Production Value by Type (2021-2032)

5.3.3 World PV Charge Controller Average Price by Type (2021-2032)

6 MARKET ANALYSIS BY BATTERY TYPE

6.1 World PV Charge Controller Market Size Overview by Battery Type: 2021 VS 2025 VS 2032

6.2 Segment Introduction by Battery Type

6.2.1 Lead-Acid Battery Charge Controller

6.2.2 Lithium Battery Charge Controller

6.2.3 Universal Battery Charge Controller

6.3 Market Segment by Battery Type

6.3.1 World PV Charge Controller Production by Battery Type (2021-2032)

6.3.2 World PV Charge Controller Production Value by Battery Type (2021-2032)

6.3.3 World PV Charge Controller Average Price by Battery Type (2021-2032)

7 MARKET ANALYSIS BY CHARGING METHOD

7.1 World PV Charge Controller Market Size Overview by Charging Method: 2021 VS 2025 VS 2032

7.2 Segment Introduction by Charging Method

7.2.1 Single Stage Charge Controller

7.2.2 Two Stage Charge Controller

7.2.3 Three Stage Charge Controller

7.3 Market Segment by Charging Method

7.3.1 World PV Charge Controller Production by Charging Method (2021-2032)

7.3.2 World PV Charge Controller Production Value by Charging Method (2021-2032)

7.3.3 World PV Charge Controller Average Price by Charging Method (2021-2032)

8 MARKET ANALYSIS BY VOLTAGE LEVEL

8.1 World PV Charge Controller Market Size Overview by Voltage Level: 2021 VS 2025 VS 2032

8.2 Segment Introduction by Voltage Level

8.2.1 Low Voltage Charge Controller

8.2.2 Medium Voltage Charge Controller

8.2.3 High Voltage Charge Controller

8.3 Market Segment by Voltage Level

8.3.1 World PV Charge Controller Production by Voltage Level (2021-2032)

8.3.2 World PV Charge Controller Production Value by Voltage Level (2021-2032)

8.3.3 World PV Charge Controller Average Price by Voltage Level (2021-2032)

9 MARKET ANALYSIS BY APPLICATION

9.1 World PV Charge Controller Market Size Overview by Application: 2021 VS 2025 VS 2032

9.2 Segment Introduction by Application

9.2.1 Residential Power Supply

9.2.2 Industrial Power Supply

9.2.3 Telecom Base Station

9.2.4 Commercial Facility

9.2.5 Urban Management

9.3 Market Segment by Application

9.3.1 World PV Charge Controller Production by Application (2021-2032)

9.3.2 World PV Charge Controller Production Value by Application (2021-2032)

9.3.3 World PV Charge Controller Average Price by Application (2021-2032)

10 COMPANY PROFILES

10.1 Morningstar?US?

10.1.1 Morningstar?US? Details

10.1.2 Morningstar?US? Major Business

10.1.3 Morningstar?US? PV Charge Controller Product and Services

10.1.4 Morningstar?US? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.1.5 Morningstar?US? Recent Developments/Updates

10.1.6 Morningstar?US? Competitive Strengths & Weaknesses

10.2 Victron Energy?NL?

10.2.1 Victron Energy?NL? Details

10.2.2 Victron Energy?NL? Major Business

10.2.3 Victron Energy?NL? PV Charge Controller Product and Services

10.2.4 Victron Energy?NL? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.2.5 Victron Energy?NL? Recent Developments/Updates

10.2.6 Victron Energy?NL? Competitive Strengths & Weaknesses

10.3 OutBack Power?US?

10.3.1 OutBack Power?US? Details

10.3.2 OutBack Power?US? Major Business

10.3.3 OutBack Power?US? PV Charge Controller Product and Services

10.3.4 OutBack Power?US? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.3.5 OutBack Power?US? Recent Developments/Updates

10.3.6 OutBack Power?US? Competitive Strengths & Weaknesses

10.4 Studer Innotec?CH?

10.4.1 Studer Innotec?CH? Details

10.4.2 Studer Innotec?CH? Major Business

10.4.3 Studer Innotec?CH? PV Charge Controller Product and Services

10.4.4 Studer Innotec?CH? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.4.5 Studer Innotec?CH? Recent Developments/Updates

10.4.6 Studer Innotec?CH? Competitive Strengths & Weaknesses

10.5 Phocos?DE?

10.5.1 Phocos?DE? Details

10.5.2 Phocos?DE? Major Business

10.5.3 Phocos?DE? PV Charge Controller Product and Services

10.5.4 Phocos?DE? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.5.5 Phocos?DE? Recent Developments/Updates

10.5.6 Phocos?DE? Competitive Strengths & Weaknesses

10.6 MidNite Solar?US?

10.6.1 MidNite Solar?US? Details

10.6.2 MidNite Solar?US? Major Business

10.6.3 MidNite Solar?US? PV Charge Controller Product and Services

10.6.4 MidNite Solar?US? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.6.5 MidNite Solar?US? Recent Developments/Updates

10.6.6 MidNite Solar?US? Competitive Strengths & Weaknesses

10.7 Schneider Electric?FR?

10.7.1 Schneider Electric?FR? Details

10.7.2 Schneider Electric?FR? Major Business

10.7.3 Schneider Electric?FR? PV Charge Controller Product and Services

10.7.4 Schneider Electric?FR? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.7.5 Schneider Electric?FR? Recent Developments/Updates

10.7.6 Schneider Electric?FR? Competitive Strengths & Weaknesses

10.8 Sunforge LLC?US?

10.8.1 Sunforge LLC?US? Details

10.8.2 Sunforge LLC?US? Major Business

10.8.3 Sunforge LLC?US? PV Charge Controller Product and Services

10.8.4 Sunforge LLC?US? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.8.5 Sunforge LLC?US? Recent Developments/Updates

10.8.6 Sunforge LLC?US? Competitive Strengths & Weaknesses

10.9 Western Co?IT?

10.9.1 Western Co?IT? Details

10.9.2 Western Co?IT? Major Business

10.9.3 Western Co?IT? PV Charge Controller Product and Services

10.9.4 Western Co?IT? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.9.5 Western Co?IT? Recent Developments/Updates

10.9.6 Western Co?IT? Competitive Strengths & Weaknesses

10.10 Denryo?JP?

10.10.1 Denryo?JP? Details

10.10.2 Denryo?JP? Major Business

10.10.3 Denryo?JP? PV Charge Controller Product and Services

10.10.4 Denryo?JP? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.10.5 Denryo?JP? Recent Developments/Updates

10.10.6 Denryo?JP? Competitive Strengths & Weaknesses

10.11 EPEVER?CN?

10.11.1 EPEVER?CN? Details

10.11.2 EPEVER?CN? Major Business

10.11.3 EPEVER?CN? PV Charge Controller Product and Services

10.11.4 EPEVER?CN? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.11.5 EPEVER?CN? Recent Developments/Updates

10.11.6 EPEVER?CN? Competitive Strengths & Weaknesses

10.12 MUST Solar?CN?

10.12.1 MUST Solar?CN? Details

10.12.2 MUST Solar?CN? Major Business

10.12.3 MUST Solar?CN? PV Charge Controller Product and Services

10.12.4 MUST Solar?CN? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.12.5 MUST Solar?CN? Recent Developments/Updates

10.12.6 MUST Solar?CN? Competitive Strengths & Weaknesses

10.13 Lumiax?CN?

10.13.1 Lumiax?CN? Details

10.13.2 Lumiax?CN? Major Business

10.13.3 Lumiax?CN? PV Charge Controller Product and Services

10.13.4 Lumiax?CN? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.13.5 Lumiax?CN? Recent Developments/Updates

10.13.6 Lumiax?CN? Competitive Strengths & Weaknesses

10.14 SRNE?CN?

10.14.1 SRNE?CN? Details

10.14.2 SRNE?CN? Major Business

10.14.3 SRNE?CN? PV Charge Controller Product and Services

10.14.4 SRNE?CN? PV Charge Controller Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.14.5 SRNE?CN? Recent Developments/Updates

10.14.6 SRNE?CN? Competitive Strengths & Weaknesses

11 INDUSTRY CHAIN ANALYSIS

11.1 PV Charge Controller Industry Chain

11.2 PV Charge Controller Upstream Analysis

11.2.1 PV Charge Controller Core Raw Materials

11.2.2 Main Manufacturers of PV Charge Controller Core Raw Materials

11.3 Midstream Analysis

11.4 Downstream Analysis

11.5 PV Charge Controller Production Mode

11.6 PV Charge Controller Procurement Model

11.7 PV Charge Controller Industry Sales Model and Sales Channels

11.7.1 PV Charge Controller Sales Model

11.7.2 PV Charge Controller Typical Distributors

12 RESEARCH FINDINGS AND CONCLUSION

13 APPENDIX

13.1 Methodology

13.2 Research Process and Data Source

13.3 Disclaimer

List Of Tables

LIST OF TABLES

Table 1. World PV Charge Controller Production Value by Region (2021, 2025 and 2032) & (USD Million)

Table 2. World PV Charge Controller Production Value by Region (2021-2026) & (USD Million)

Table 3. World PV Charge Controller Production Value by Region (2027-2032) & (USD Million)

Table 4. World PV Charge Controller Production Value Market Share by Region (2021-2026)

Table 5. World PV Charge Controller Production Value Market Share by Region (2027-2032)

Table 6. World PV Charge Controller Production by Region (2021-2026) & (Units)

Table 7. World PV Charge Controller Production by Region (2027-2032) & (Units)

Table 8. World PV Charge Controller Production Market Share by Region (2021-2026)

Table 9. World PV Charge Controller Production Market Share by Region (2027-2032)

Table 10. World PV Charge Controller Average Price by Region (2021-2026) & (USD/Unit)

Table 11. World PV Charge Controller Average Price by Region (2027-2032) & (USD/Unit)

Table 12. PV Charge Controller Major Market Trends

Table 13. World PV Charge Controller Consumption Growth Rate Forecast by Region (2021 & 2025 & 2032) & (Units)

Table 14. World PV Charge Controller Consumption by Region (2021-2026) & (Units)

Table 15. World PV Charge Controller Consumption Forecast by Region (2027-2032) & (Units)

Table 16. World PV Charge Controller Production Value by Manufacturer (2021-2026) & (USD Million)

Table 17. Production Value Market Share of Key PV Charge Controller Producers in 2025

Table 18. World PV Charge Controller Production by Manufacturer (2021-2026) & (Units)

Table 19. Production Market Share of Key PV Charge Controller Producers in 2025

Table 20. World PV Charge Controller Average Price by Manufacturer (2021-2026) & (USD/Unit)

Table 21. Global PV Charge Controller Company Evaluation Quadrant

Table 22. World PV Charge Controller Industry Rank of Major Manufacturers, Based on

Production Value in 2025

Table 23. Head Office and PV Charge Controller Production Site of Key Manufacturer

Table 24. PV Charge Controller Market: Company Product Type Footprint

Table 25. PV Charge Controller Market: Company Product Application Footprint

Table 26. PV Charge Controller Competitive Factors

Table 27. PV Charge Controller New Entrant and Capacity Expansion Plans

Table 28. PV Charge Controller Mergers & Acquisitions Activity

Table 29. United States VS China PV Charge Controller Production Value Comparison, (2021 & 2025 & 2032) & (USD Million)

Table 30. United States VS China PV Charge Controller Production Comparison, (2021 & 2025 & 2032) & (Units)

Table 31. United States VS China PV Charge Controller Consumption Comparison, (2021 & 2025 & 2032) & (Units)

Table 32. United States Based PV Charge Controller Manufacturers, Headquarters and Production Site (States, Country)

Table 33. United States Based Manufacturers PV Charge Controller Production Value, (2021-2026) & (USD Million)

Table 34. United States Based Manufacturers PV Charge Controller Production Value Market Share (2021-2026)

Table 35. United States Based Manufacturers PV Charge Controller Production (2021-2026) & (Units)

Table 36. United States Based Manufacturers PV Charge Controller Production Market Share (2021-2026)

Table 37. China Based PV Charge Controller Manufacturers, Headquarters and Production Site (Province, Country)

Table 38. China Based Manufacturers PV Charge Controller Production Value, (2021-2026) & (USD Million)

Table 39. China Based Manufacturers PV Charge Controller Production Value Market Share (2021-2026)

Table 40. China Based Manufacturers PV Charge Controller Production, (2021-2026) & (Units)

Table 41. China Based Manufacturers PV Charge Controller Production Market Share (2021-2026)

Table 42. Rest of World Based PV Charge Controller Manufacturers, Headquarters and Production Site (State, Country)

Table 43. Rest of World Based Manufacturers PV Charge Controller Production Value, (2021-2026) & (USD Million)

Table 44. Rest of World Based Manufacturers PV Charge Controller Production Value Market Share (2021-2026)

Table 45. Rest of World Based Manufacturers PV Charge Controller Production, (2021-2026) & (Units)

Table 46. Rest of World Based Manufacturers PV Charge Controller Production Market Share (2021-2026)

Table 47. World PV Charge Controller Production Value by Type, (USD Million), 2021 & 2025 & 2032

Table 48. World PV Charge Controller Production by Type (2021-2026) & (Units)

Table 49. World PV Charge Controller Production by Type (2027-2032) & (Units)

Table 50. World PV Charge Controller Production Value by Type (2021-2026) & (USD Million)

Table 51. World PV Charge Controller Production Value by Type (2027-2032) & (USD Million)

Table 52. World PV Charge Controller Average Price by Type (2021-2026) & (USD/Unit)

Table 53. World PV Charge Controller Average Price by Type (2027-2032) & (USD/Unit)

Table 54. World PV Charge Controller Production Value by Battery Type, (USD Million), 2021 & 2025 & 2032

Table 55. World PV Charge Controller Production by Battery Type (2021-2026) & (Units)

Table 56. World PV Charge Controller Production by Battery Type (2027-2032) & (Units)

Table 57. World PV Charge Controller Production Value by Battery Type (2021-2026) & (USD Million)

Table 58. World PV Charge Controller Production Value by Battery Type (2027-2032) & (USD Million)

Table 59. World PV Charge Controller Average Price by Battery Type (2021-2026) & (USD/Unit)

Table 60. World PV Charge Controller Average Price by Battery Type (2027-2032) & (USD/Unit)

Table 61. World PV Charge Controller Production Value by Charging Method, (USD Million), 2021 & 2025 & 2032

Table 62. World PV Charge Controller Production by Charging Method (2021-2026) & (Units)

Table 63. World PV Charge Controller Production by Charging Method (2027-2032) & (Units)

Table 64. World PV Charge Controller Production Value by Charging Method (2021-2026) & (USD Million)

Table 65. World PV Charge Controller Production Value by Charging Method

(2027-2032) & (USD Million)

Table 66. World PV Charge Controller Average Price by Charging Method (2021-2026) & (USD/Unit)

Table 67. World PV Charge Controller Average Price by Charging Method (2027-2032) & (USD/Unit)

Table 68. World PV Charge Controller Production Value by Voltage Level, (USD Million), 2021 & 2025 & 2032

Table 69. World PV Charge Controller Production by Voltage Level (2021-2026) & (Units)

Table 70. World PV Charge Controller Production by Voltage Level (2027-2032) & (Units)

Table 71. World PV Charge Controller Production Value by Voltage Level (2021-2026) & (USD Million)

Table 72. World PV Charge Controller Production Value by Voltage Level (2027-2032) & (USD Million)

Table 73. World PV Charge Controller Average Price by Voltage Level (2021-2026) & (USD/Unit)

Table 74. World PV Charge Controller Average Price by Voltage Level (2027-2032) & (USD/Unit)

Table 75. World PV Charge Controller Production Value by Application, (USD Million), 2021 & 2025 & 2032

Table 76. World PV Charge Controller Production by Application (2021-2026) & (Units)

Table 77. World PV Charge Controller Production by Application (2027-2032) & (Units)

Table 78. World PV Charge Controller Production Value by Application (2021-2026) & (USD Million)

Table 79. World PV Charge Controller Production Value by Application (2027-2032) & (USD Million)

Table 80. World PV Charge Controller Average Price by Application (2021-2026) & (USD/Unit)

Table 81. World PV Charge Controller Average Price by Application (2027-2032) & (USD/Unit)

Table 82. Morningstar?US? Basic Information, Manufacturing Base and Competitors

Table 83. Morningstar?US? Major Business

Table 84. Morningstar?US? PV Charge Controller Product and Services

Table 85. Morningstar?US? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 86. Morningstar?US? Recent Developments/Updates

Table 87. Morningstar?US? Competitive Strengths & Weaknesses

Table 88. Victron Energy?NL? Basic Information, Manufacturing Base and Competitors

Table 89. Victron Energy?NL? Major Business

Table 90. Victron Energy?NL? PV Charge Controller Product and Services

Table 91. Victron Energy?NL? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 92. Victron Energy?NL? Recent Developments/Updates

Table 93. Victron Energy?NL? Competitive Strengths & Weaknesses

Table 94. OutBack Power?US? Basic Information, Manufacturing Base and Competitors

Table 95. OutBack Power?US? Major Business

Table 96. OutBack Power?US? PV Charge Controller Product and Services

Table 97. OutBack Power?US? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 98. OutBack Power?US? Recent Developments/Updates

Table 99. OutBack Power?US? Competitive Strengths & Weaknesses

Table 100. Studer Innotec?CH? Basic Information, Manufacturing Base and Competitors

Table 101. Studer Innotec?CH? Major Business

Table 102. Studer Innotec?CH? PV Charge Controller Product and Services

Table 103. Studer Innotec?CH? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 104. Studer Innotec?CH? Recent Developments/Updates

Table 105. Studer Innotec?CH? Competitive Strengths & Weaknesses

Table 106. Phocos?DE? Basic Information, Manufacturing Base and Competitors

Table 107. Phocos?DE? Major Business

Table 108. Phocos?DE? PV Charge Controller Product and Services

Table 109. Phocos?DE? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 110. Phocos?DE? Recent Developments/Updates

Table 111. Phocos?DE? Competitive Strengths & Weaknesses

Table 112. MidNite Solar?US? Basic Information, Manufacturing Base and Competitors

Table 113. MidNite Solar?US? Major Business

Table 114. MidNite Solar?US? PV Charge Controller Product and Services

Table 115. MidNite Solar?US? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 116. MidNite Solar?US? Recent Developments/Updates

Table 117. MidNite Solar?US? Competitive Strengths & Weaknesses

Table 118. Schneider Electric?FR? Basic Information, Manufacturing Base and Competitors

Table 119. Schneider Electric?FR? Major Business

Table 120. Schneider Electric?FR? PV Charge Controller Product and Services

Table 121. Schneider Electric?FR? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 122. Schneider Electric?FR? Recent Developments/Updates

Table 123. Schneider Electric?FR? Competitive Strengths & Weaknesses

Table 124. Sunforge LLC?US? Basic Information, Manufacturing Base and Competitors

Table 125. Sunforge LLC?US? Major Business

Table 126. Sunforge LLC?US? PV Charge Controller Product and Services

Table 127. Sunforge LLC?US? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 128. Sunforge LLC?US? Recent Developments/Updates

Table 129. Sunforge LLC?US? Competitive Strengths & Weaknesses

Table 130. Western Co?IT? Basic Information, Manufacturing Base and Competitors

Table 131. Western Co?IT? Major Business

Table 132. Western Co?IT? PV Charge Controller Product and Services

Table 133. Western Co?IT? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 134. Western Co?IT? Recent Developments/Updates

Table 135. Western Co?IT? Competitive Strengths & Weaknesses

Table 136. Denryo?JP? Basic Information, Manufacturing Base and Competitors

Table 137. Denryo?JP? Major Business

Table 138. Denryo?JP? PV Charge Controller Product and Services

Table 139. Denryo?JP? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 140. Denryo?JP? Recent Developments/Updates

Table 141. Denryo?JP? Competitive Strengths & Weaknesses

Table 142. EPEVER?CN? Basic Information, Manufacturing Base and Competitors

Table 143. EPEVER?CN? Major Business

Table 144. EPEVER?CN? PV Charge Controller Product and Services

Table 145. EPEVER?CN? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 146. EPEVER?CN? Recent Developments/Updates

Table 147. EPEVER?CN? Competitive Strengths & Weaknesses

Table 148. MUST Solar?CN? Basic Information, Manufacturing Base and Competitors

Table 149. MUST Solar?CN? Major Business

Table 150. MUST Solar?CN? PV Charge Controller Product and Services

Table 151. MUST Solar?CN? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 152. MUST Solar?CN? Recent Developments/Updates

Table 153. MUST Solar?CN? Competitive Strengths & Weaknesses

Table 154. Lumiax?CN? Basic Information, Manufacturing Base and Competitors

Table 155. Lumiax?CN? Major Business

Table 156. Lumiax?CN? PV Charge Controller Product and Services

Table 157. Lumiax?CN? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 158. Lumiax?CN? Recent Developments/Updates

Table 159. Lumiax?CN? Competitive Strengths & Weaknesses

Table 160. SRNE?CN? Basic Information, Manufacturing Base and Competitors

Table 161. SRNE?CN? Major Business

Table 162. SRNE?CN? PV Charge Controller Product and Services

Table 163. SRNE?CN? PV Charge Controller Production (Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 164. SRNE?CN? Recent Developments/Updates

Table 165. SRNE?CN? Competitive Strengths & Weaknesses

Table 166. Global Key Players of PV Charge Controller Upstream (Raw Materials)

Table 167. Global PV Charge Controller Typical Customers

Table 168. PV Charge Controller Typical Distributors

List Of Figures

LIST OF FIGURES

Figure 1. PV Charge Controller Picture

Figure 2. World PV Charge Controller Production Value: 2021 & 2025 & 2032, (USD Million)

Figure 3. World PV Charge Controller Production Value and Forecast (2021-2032) & (USD Million)

Figure 4. World PV Charge Controller Production (2021-2032) & (Units)

Figure 5. World PV Charge Controller Average Price (2021-2032) & (USD/Unit)

Figure 6. World PV Charge Controller Production Value Market Share by Region (2021-2032)

Figure 7. World PV Charge Controller Production Market Share by Region (2021-2032)

Figure 8. North America PV Charge Controller Production (2021-2032) & (Units)

Figure 9. Europe PV Charge Controller Production (2021-2032) & (Units)

Figure 10. Asia PV Charge Controller Production (2021-2032) & (Units)

Figure 11. Latin America PV Charge Controller Production (2021-2032) & (Units)

Figure 12. Middle East PV Charge Controller Production (2021-2032) & (Units)

Figure 13. PV Charge Controller Market Drivers

Figure 14. Factors Affecting Demand

Figure 15. World PV Charge Controller Consumption (2021-2032) & (Units)

Figure 16. World PV Charge Controller Consumption Market Share by Region (2021-2032)

Figure 17. United States PV Charge Controller Consumption (2021-2032) & (Units)

Figure 18. China PV Charge Controller Consumption (2021-2032) & (Units)

Figure 19. Europe PV Charge Controller Consumption (2021-2032) & (Units)

Figure 20. Japan PV Charge Controller Consumption (2021-2032) & (Units)

Figure 21. South Korea PV Charge Controller Consumption (2021-2032) & (Units)

Figure 22. ASEAN PV Charge Controller Consumption (2021-2032) & (Units)

Figure 23. India PV Charge Controller Consumption (2021-2032) & (Units)

Figure 24. Producer Shipments of PV Charge Controller by Manufacturer Revenue (\$MM) and Market Share (%): 2025

Figure 25. Global Four-firm Concentration Ratios (CR4) for PV Charge Controller Markets in 2025

Figure 26. Global Four-firm Concentration Ratios (CR8) for PV Charge Controller Markets in 2025

Figure 27. United States VS China: PV Charge Controller Production Value Market Share Comparison (2021 & 2025 & 2032)

Figure 28. United States VS China: PV Charge Controller Production Market Share Comparison (2021 & 2025 & 2032)

Figure 29. United States VS China: PV Charge Controller Consumption Market Share Comparison (2021 & 2025 & 2032)

Figure 30. United States Based Manufacturers PV Charge Controller Production Market Share 2025

Figure 31. China Based Manufacturers PV Charge Controller Production Market Share 2025

Figure 32. Rest of World Based Manufacturers PV Charge Controller Production Market Share 2025

Figure 33. World PV Charge Controller Production Value by Type, (USD Million), 2021 & 2025 & 2032

Figure 34. World PV Charge Controller Production Value Market Share by Type in 2025

Figure 35. MPPT Charge Controller

Figure 36. PWM Charge Controller

Figure 37. On-Off Charge Controller

Figure 38. World PV Charge Controller Production Market Share by Type (2021-2032)

Figure 39. World PV Charge Controller Production Value Market Share by Type (2021-2032)

Figure 40. World PV Charge Controller Average Price by Type (2021-2032) & (USD/Unit)

Figure 41. World PV Charge Controller Production Value by Battery Type, (USD Million), 2021 & 2025 & 2032

Figure 42. World PV Charge Controller Production Value Market Share by Battery Type in 2025

Figure 43. Lead-Acid Battery Charge Controller

Figure 44. Lithium Battery Charge Controller

Figure 45. Universal Battery Charge Controller

Figure 46. World PV Charge Controller Production Market Share by Battery Type (2021-2032)

Figure 47. World PV Charge Controller Production Value Market Share by Battery Type (2021-2032)

Figure 48. World PV Charge Controller Average Price by Battery Type (2021-2032) & (USD/Unit)

Figure 49. World PV Charge Controller Production Value by Charging Method, (USD Million), 2021 & 2025 & 2032

Figure 50. World PV Charge Controller Production Value Market Share by Charging Method in 2025

Figure 51. Single Stage Charge Controller

Figure 52. Two Stage Charge Controller

Figure 53. Three Stage Charge Controller

Figure 54. World PV Charge Controller Production Market Share by Charging Method (2021-2032)

Figure 55. World PV Charge Controller Production Value Market Share by Charging Method (2021-2032)

Figure 56. World PV Charge Controller Average Price by Charging Method (2021-2032) & (USD/Unit)

Figure 57. World PV Charge Controller Production Value by Voltage Level, (USD Million), 2021 & 2025 & 2032

Figure 58. World PV Charge Controller Production Value Market Share by Voltage Level in 2025

Figure 59. Low Voltage Charge Controller

Figure 60. Medium Voltage Charge Controller

Figure 61. High Voltage Charge Controller

Figure 62. World PV Charge Controller Production Market Share by Voltage Level (2021-2032)

Figure 63. World PV Charge Controller Production Value Market Share by Voltage Level (2021-2032)

Figure 64. World PV Charge Controller Average Price by Voltage Level (2021-2032) & (USD/Unit)

Figure 65. World PV Charge Controller Production Value by Application, (USD Million), 2021 & 2025 & 2032

Figure 66. World PV Charge Controller Production Value Market Share by Application in 2025

Figure 67. Residential Power Supply

Figure 68. Industrial Power Supply

Figure 69. Telecom Base Station

Figure 70. Commercial Facility

Figure 71. Urban Management

Figure 72. World PV Charge Controller Production Market Share by Application (2021-2032)

Figure 73. World PV Charge Controller Production Value Market Share by Application (2021-2032)

Figure 74. World PV Charge Controller Average Price by Application (2021-2032) & (USD/Unit)

Figure 75. PV Charge Controller Industry Chain

Figure 76. PV Charge Controller Procurement Model

Figure 77. PV Charge Controller Sales Model

Figure 78. PV Charge Controller Sales Channels, Direct Sales, and Distribution

Figure 79. Methodology

Figure 80. Research Process and Data Source

I would like to order

Product name: Global PV Charge Controller Supply, Demand and Key Producers, 2026-2032

Product link: <https://marketpublishers.com/r/G88F26923BA4EN.html>

Price: US\$ 4,480.00 (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/G88F26923BA4EN.html>