

Photovoltaic (PV) Inverters: Market Research Report

https://marketpublishers.com/r/PAA485BD0B1EN.html

Date: February 2018

Pages: 303

Price: US\$ 5,600.00 (Single User License)

ID: PAA485BD0B1EN

Abstracts

This report analyzes the worldwide markets for Photovoltaic (PV) Inverters in Megawatts. The Global market is further analyzed by the following Distribution Types Single-Phase String Inverters, Three-Phase String Inverters, Commercial & Utility Scale Systems, and Microinverters. The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World. Annual estimates and forecasts are provided for the period 2016 through 2024. Also, a five-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research.

Company profiles are primarily based on public domain information including company URLs.

The report profiles 154 companies including many key and niche players such as -

ABB Ltd.

Chint Power Systems America

Darfon Electronics Corp.

Delta Energy Systems, Inc.

Eaton Corporation Plc



Contents

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW

Photovoltaic Energy & Inverters: A Primer

Figure 1: Operating Model of PV Power Generation Industry

Figure 2: Components of PV Systems

Table 1. Total Cost Breakdown of Solar Energy by Component (includes corresponding Graph/Chart)

Outlook

Demand by End-Use

Table 2. Global Solar Capacity Installation by Segment (2015 and 2018E): Percentage Share Breakdown of Total Capacity for Utility, Commercial and Residential Segments (includes corresponding Graph/Chart)

Competition

Table 3. Leading Players in the Global Photovoltaic Inverters Market (2016): Percentage Share Breakdown of Shipments by Company (includes corresponding Graph/Chart)

Table 4. Leading Players in the Global Photovoltaic Inverters Market (2016): Percentage Share Breakdown of Revenues by Company (includes corresponding Graph/Chart)

Asian Companies Gain Share from European Counterparts
Power Supplies and UPS Vendors Latch onto PV Inverter Success
Solar Energy Demand Metrics



Table 5. Top 10 Countries Worldwide by Annual PV Installed Capacity (2016) (includes corresponding Graph/Chart)

Table 6. Top 10 Countries Worldwide by Cumulative PV Installed Capacity (2016) (includes corresponding Graph/Chart)

Aging PV Systems Power Replacement Demand Changing Market Dynamics Impact Prices of PV Inverters

Table 7. Global Average Price of PV Inverters by Type (2014-2020) (in \$/Wac) (includes corresponding Graph/Chart)

Tariff Charges Could Trip PV Installation Growth
Asia and the US Emerge as New Nerve Centers for Photovoltaic Inverters Market
Technological Advancements Power Next Generation Solar Power Inverters
Demand on Rise for 'Smart' PV Inverters
Rise of Virtual Power Plants Propel Smart Inverters Market
Micro Inverters Gain Edge

Table 8. Global Market for Solar Microinverters by Type (2016): Percentage Share Breakdown of Shipments for Stand-alone and Integrated Solar Microinverters (includes corresponding Graph/Chart)

Reliable, Continuous Power Supply Propel String Inverter Market Growth Demand on Rise for Small 3-Phase String and Megawatt PV Inverters Manufacturers Roll out More 1,500V Inverters

Table 9. US PV Inverters Market by Capacity (2015-2020): Percentage Share Breakdown of Shipments for 600V, 1000V, and 1500V Inverters (includes corresponding Graph/Chart)

2. PRODUCT OVERVIEW

3. PRODUCTS INNOVATIONS/INTRODUCTIONS



Delta Introduces RPI80 Inverter in South African Market

KACO new energy Introduces Three New Inverters

Huawei Introduces New Residential Inverter Models

Consul Neowatt Unveils Sunbird Solar Inverters

Sungrow and SMA Unveil New Inverters

Sungrow Showcases SG80HV –World's First 1,500 V PV String Inverter

OMRON Unveils New Residential PV Inverter Along with DC Optimizers

Gamesa Launches E-2. 25 MVA PV Inverter

Delta Launches M80U Photovoltaic (PV) Inverter

Ideal Launches SunDial Solar Photovoltaic String Inverter

SMA Introduces Sunny Boy Storage – A High Voltage Battery Compatible Inverter

Borg Energy Introduces Vega Series of Solar Powered Energy System

SmartTrak Launches Plug-and-Play Solar Microinverters for Households, Rural Areas

SolarEdge Launches New HD-Wave Inverter Technology

Fronius Introduces New String Inverter

Sungrow Unveils New Series of String Inverters

LTI ReEnergy Launches PVmaster-Station Inverter with Ampt Mode

4. RECENT INDUSTRY ACTIVITY

Sungrow Bags Contract from Blue Capital Management for Supply of PV inverters Fronius Installs Fronius IG Plus String Inverters at Former Nuclear Plant in Austria ABB India Breaks Ground for New Solar Inverter Manufacturing Plant Sungrow Inks Pact with ABB for 1,500V Market Ingeteam Acquires Bonfiglioli's PV Business AEC Opens Saudi Arabia's First Solar PV Inverter Factory SolarMax Restarts Production of String and Central Inverters Conergy Inks Inverter Partnership Agreement with Sungrow

5. FOCUS ON SELECT GLOBAL PLAYERS

ABB Ltd. (Switzerland)

Chint Power Systems America (USA)

Darfon Electronics Corp. (Taiwan)

Delta Energy Systems, Inc. (Australia)

Eaton Corporation Plc (Ireland)

Elettronica Santerno S. p. A. (Italy)

Enphase Energy (USA)

Fronius International GmbH (Austria)



Fuji Electric Europe GmbH (Germany)

GE Power (USA)

Ginlong Technologies (China)

Growatt New Energy Technology Co., Ltd. (China)

Huawei Technologies Co. Ltd. (China)

Ingeteam Corporacion, S. A. (Spain)

KACO new energy, Inc. (USA)

Mitsubishi Electric (Japan)

SolarEdge Technologies, Inc. (Israel)

Schneider Electric SE (France)

Sineng Electric Co., Ltd. (China)

TBEA Xinjiang Sunoasis Co., Ltd. (TBEA Sunoasis Co., Ltd.) (China)

SMA Solar Technology AG (Germany)

Sungrow Power Supply Co., Ltd (China)

TMEIC Corporation (Japan)

6. GLOBAL MARKET PERSPECTIVE

Table 10. World Recent Past, Current & Future Analysis for PV Inverters by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 11. World Historic Review for PV Inverters by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 12. World 14-Year Perspective for PV Inverters by Geographic Region - Percentage Breakdown of Shipment Capacities for US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World Markets for Years 2011, 2017, & 2024 (includes corresponding Graph/Chart)

Table 13. World Recent Past, Current & Future Analysis for PV Inverters by Distribution Type - Single-Phase String Inverters, Three-Phase String Inverters, Utility Central & Solution, and Microinverters Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)



Table 14. World Historic Review for PV Inverters by Distribution Type - Single-Phase String Inverters, Three-Phase String Inverters, Utility Central & Solution, and Microinverters Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 15. World 14-Year Perspective for PV Inverters by Distribution Type - Percentage Breakdown of Shipment Capacities for Single-Phase String Inverters, Three-Phase String Inverters, Utility Central & Solution, and Microinverters Markets for Years 2011, 2017, & 2024 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES

A. Market Analysis Solar Energy Market in the US

Table 16. US New Energy Generation by Source (2014-2016): Percentage Breakdown of New Capacity by Energy Source (includes corresponding Graph/Chart)

Table 17. US Solar PV Capacity Installations (2014-2022): Percentage Breakdown of New Capacity Installations by Sector (includes corresponding Graph/Chart)

Inverter Manufacturers Face Pricing Pressures

Table 18. Average Price Trends for Photovoltaic Inverters by Type in the US (H12016-H12017) (in \$/Wac) (includes corresponding Graph/Chart)

Table 19. Photovoltaic Inverters Market in the US (2015-2020): Percentage Share Breakdown of Shipments by Capacity (includes corresponding Graph/Chart)

NEC Compliance to Drive MicroInverters Market

Table 20. US Residential market for Photovoltaic Inverters (2016-2022): Percentage Share Breakdown of Inverter Installation by Type (includes corresponding Graph/Chart)



Smart Inverters Gather Pace
Despite Benefits, Discrepancies Persist Between Interest and Deployment
Regulatory Scenario
New York Approves Clean Energy Standard
Strategic Corporate Developments
Select Players
B. Market Analytics

Table 21. The US Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 22. The US Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

2. CANADA

Market Analysis

Table 23. Canadian Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 24. Canadian Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

3. JAPAN

A. Market AnalysisOutlookB. Market Analytics

Table 25. Japanese Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024



(includes corresponding Graph/Chart)

Table 26. Japanese Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

4. EUROPE

A. Market Analysis
Market Overview
Solar Energy Market Overview
Major Barriers in the European Photovoltaic Market
Political Instability & Uneven Spread of Investments
Retroactive Changes to Increase Cost of Capital
Grid Charges Disincentivise Solar Power
Curtailment of Solar Power – A Stark Reality
High Up-front Costs Act as Barrier for Mini-Utility Business Models
B. Market Analytics

Table 27. European Recent Past, Current & Future Analysis for PV Inverters by Geographic Region - France, Germany, Italy, UK, Spain, and Rest of Europe Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 28. European Historic Review for PV Inverters by Geographic Region - France, Germany, Italy, UK, Spain, and Rest of Europe Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 29. European 14-Year Perspective for PV Inverters by Geographic Region - Percentage Breakdown of Shipment Capacities for France, Germany, Italy, UK, Spain, and Rest of Europe Markets for Years 2011, 2017, & 2024 (includes corresponding Graph/Chart)

4A. FRANCE

A. Market Analysis
Outlook



Key Player

B. Market Analytics

Table 30. French Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 31. French Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

4B. GERMANY

A. Market AnalysisOutlookStrategic Corporate DevelopmentsKey PlayersB. Market Analytics

Table 32. German Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 33. German Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

4C. ITALY

A. Market AnalysisOutlookStrategic Corporate DevelopmentsKey PlayerB. Market Analytics

Table 34. Italian Recent Past, Current & Future Analysis for PV Inverters Market



Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 35. Italian Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

4D. THE UNITED KINGDOM

A. Market AnalysisOutlookStrategic Corporate DevelopmentsB. Market Analytics

Table 36. The UK Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 37. The UK Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

4E. SPAIN

A. Market AnalysisOutlookStrategic Corporate DevelopmentKey PlayerB. Market Analytics

Table 38. Spanish Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 39. Spanish Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)



4F. REST OF EUROPE

A. Market Analysis
Outlook
Strategic Corporate Developments
Key Players
B. Market Analytics

Table 40. Rest of European Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 41. Rest of European Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC

A. Market Analysis
Market Overview
Outlook
Solar Microinverters Penetrate Untapped Markets
Higher Costs Can Trip Soaring Demand
Lack of Accessibility Impacts Market Growth
B. Market Analytics

Table 42. Asia-Pacific Recent Past, Current & Future Analysis for PV Inverters by Geographic Region - China, India, and Rest of Asia-Pacific Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 43. Asia-Pacific Historic Review for PV Inverters by Geographic Region - China, India, and Rest of Asia-Pacific Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 44. Asia-Pacific 14-Year Perspective for PV Inverters by Geographic Region -



Percentage Breakdown of Shipment Capacities for China, India, and Rest of Asia-Pacific Markets for Years 2011, 2017, & 2024 (includes corresponding Graph/Chart)

5A. CHINA

A. Market Analysis
Market Overview

China: A Major Powerhouse in Global PV Market

Table 45. China's Energy Mix (TWh) (2016) (includes corresponding Graph/Chart)

Major Trends in Chinese Market
Growing Competition Leads to Pricing Pressure

Table 46. Average Price of Solar Inverters in China (2014-2020) (includes corresponding Graph/Chart)

Sungrow, Huawei Breach Top Ten Global Supplier Mark PV Inverter Product Mix Witness Shift Strategic Corporate Developments Select Players B. Market Analytics

Table 47. Chinese Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 48. Chinese Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

5B. INDIA

A. Market AnalysisMarket OverviewIndia Continues to Register Healthy Growth Rate



Market Evolution and Present Market Status

Table 49. Indian PV Inverters Market (2020): Estimated Percentage-wise Breakdown of Share of Revenues by Utility, Commercial/ Industrial and Residential Sector (includes corresponding Graph/Chart)

Table 50. Top 5 Indian States by Solar Growth Capacity Addition (Fiscal 2017) (includes corresponding Graph/Chart)

International Players Dominate Indian PV Market Scene

Table 51. Indian Solar Energy Market (2016): Percentage Breakdown of Market Revenue Share for Government and Captive Power Units (includes corresponding Graph/Chart)

Table 52. Leading Players in the Indian PV Inverters Market (2016): Percentage Breakdown of Shipments by Company (includes corresponding Graph/Chart)

Strategic Corporate Developments
B. Market Analytics

Table 53. Indian Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 54. Indian Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

5C. REST OF ASIA PACIFIC

A. Market Analysis
Market Overview
Outlook
Australia
Key Player



B. Market Analytics

Table 55. Rest of Asia-Pacific Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 56. Rest of Asia-Pacific Historic Review for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

6. LATIN AMERICA

Market Analysis

Table 57. Latin American Recent Past, Current & Future Analysis for PV Inverters by Geographic Region - Brazil and Rest of Latin America Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 58. Latin American Historic Review for PV Inverters by Geographic Region - Brazil and Rest of Latin America Markets Independently Analyzed with Annual Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 59. Latin American 14-Year Perspective for PV Inverters by Geographic Region - Percentage Breakdown of Shipment Capacities for Brazil and Rest of Latin America Markets for Years 2011, 2017, & 2024 (includes corresponding Graph/Chart)

7. REST OF WORLD

A. Market Analysis
Market Overview
Outlook
Middle East Photovoltaic Inverters Market
Strategic Corporate Developments
Key Player
B. Market Analytics



Table 60. Rest of World Recent Past, Current & Future Analysis for PV Inverters Market Analyzed with Annual Shipment Capacities in Megawatts for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 61. Rest of World Historic Review for PV Inverters Market Analyzed with Annua Shipment Capacities in Megawatts for Years 2011 through 2015 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE

Total Companies Profiled: 154 (including Divisions/Subsidiaries - 163) The United States (16)

Canada (1)

Japan (7)

Europe (40)

France (3)

Germany (13)

Italy (9)

Spain (7)

Rest of Europe (8)

Asia-Pacific (Excluding Japan) (93)

Middle East (2)

Latin America (2)

Africa (2)



I would like to order

Product name: Photovoltaic (PV) Inverters: Market Research Report
Product link: https://marketpublishers.com/r/PAA485BD0B1EN.html

Price: US\$ 5,600.00 (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/PAA485BD0B1EN.html

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

riist name.	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

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

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