

# Reasons for the surge in photovoltaic inverter stocks





## Overview

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What is the global solar PV inverter market like in 2023?

Global solar PV inverter\* shipments grew by 56% in 2023 to 536 GWac, with China accounting for half of all shipments as the country's solar demand doubled in 2023, according to the latest analysis by Wood Mackenzie. The top 10 PV inverter vendors, led by Chinese giants Huawei and Sungrow, controlled 81% of the global market.

Which inverter vendors dominated the global photovoltaic market in 2022?

Huawei and Sungrow remained market leaders in 2022, as they have done since 2015, while AISWEI and SOFAR entered the top 10 ranking. The top 10 global photovoltaic (PV) inverter vendors accounted for 86% of the market – an increase of 4% year-over-year, whereas the top 3 players captured 60% of the market share for shipments in 2022.

How did the PV inverter market perform in 2022?

Overall, global PV inverter shipments saw 48% growth year-over-year in 2022, with an additional 100 GW shipped from 2021. In 2022, the PV inverter industry saw a renewed increase in shipments as the pandemic-related semiconductor chip shortage improved. Huawei and Sungrow covered 52% of the market cumulatively - an increase from 44% in 2021.

How did solar inverter market share grow in 2021?

Global top 10 solar photovoltaic (PV) inverter vendors shored up 82% of market share in 2021, increasing by 2 percentage points compared to 2020, says Wood Mackenzie, a Verisk business (Nasdaq:VRSK). Global PV inverter shipments grew 22% or 40,250 MWac (mega-watt, alternating current) to 225,386 MWac in 2021 compared to 2020.

Why are global PV inverter shipments rising?

This is mainly driven by strong growth in markets in Europe, India, and Latin



America where government support increased to meet decarbonisation goals. Wood Mackenzie research analyst Annie Rabi Bernard said: “Despite soaring raw material prices, supply chain challenges and delayed constructions, global PV inverter shipments continue to rise.

Who owns the global PV inverter market?

The top 10 PV inverter vendors, led by Chinese giants Huawei and Sungrow, controlled 81% of the global market. Huawei and Sungrow alone captured over 50% of the global share, thanks largely to their popular utility-scale inverters, reports the market analyst.



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### [The Best 10 Solar Inverter Manufacturers](#)

As a major solar inverter suppliers from China, Sungrow offers industry-leading central and string PV inverters tailored for large and small-scale solar installations. Their ...

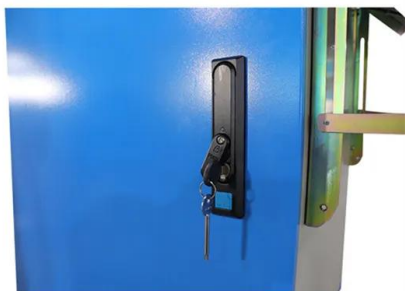
### Centralised vs decentralised: surge in small-scale utility ...

If there is an outage in one or both of the inverters, while waiting for an engineer with the relevant expertise in working with medium voltage equipment, the project owner could be losing 50-100% of the PV project's ...



### Solar Surge: 3 Stocks to Buy BEFORE the Industry Rebounds

It also provides utility-scale photovoltaic (PV) power plants and supporting services. To be sure, FSLR has been one of the better-performing solar stocks. Then again, ...



### Metal Oxide Varistor (MOV) Lifetime Estimation with Impulse ...

Given the sustainability of solar photovoltaic (PV) systems, they have been developed and widely deployed worldwide . A typical PV system comprises PV panels and power electronics ...



### Common Solar Inverter Failure Causes and Their Solutions

These are the main technologies that can protect inverters from electrical breakdowns: 1. Surge Protectors or Voltage Regulators used on the input side of the inverter ...



### Surge Protection for Photovoltaic Systems

When lightning strikes a solar PV system, it causes an induced transient current and voltage within the solar PV system wire loops. If a surge is injected into a stand-alone ...



### Failures causes analysis of grid-tie photovoltaic inverters based ...

The PV Mega-Scale power plant consists of many components. These components are divided into three sections. The first section for the DC side of the PV plant ...





## China Drives 56 Percent Surge in Global PV Inverter Shipments

Global photovoltaic (PV) inverter shipments surged by 56 percent in 2023, reaching 536 GWAC, marking a robust year for the solar industry. According to Wood ...



## Top 10 solar PV inverter vendors cornered 86% of the ...

The top 10 global photovoltaic (PV) inverter vendors accounted for 86% of the market - an increase of 4% year-over-year, whereas the top 3 players captured 60% of the market share for shipments in 2022. A 48% YoY ...

## PV outlook 2024: Market to benefit from falling prices but ...

Although solar growth will slow from this year due to higher base period, grid issue, and localization trend, the market outlook remains positive as module prices ...



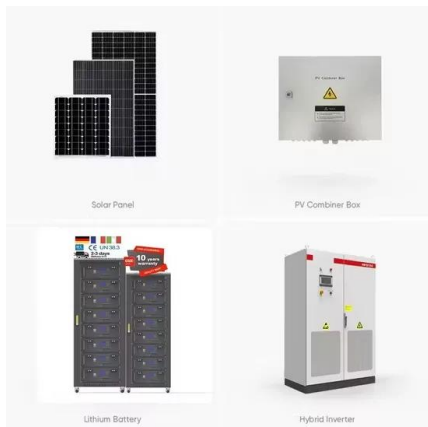
## Common Solar Inverter Error Codes & Solutions

Inverter failure can be caused by problems with the inverter itself (like worn out capacitors), problems with some other parts of the solar PV system (like the panels), and even by problems with elements outside the system (like grid ...



## Solar Stocks: Why Enphase, Nova Have New Bull On ...

On the stock market today, ENPH stock rose 3.8% to 111.30. NOVA stock, meanwhile, gained 4.8% to close at 10.95. Clouds Clearing For Solar Stocks? Both companies focus on the residential



## Top 10 solar PV inverter vendors account for 86% of ...

The top 10 global solar photovoltaic (PV) inverter vendors accounted for 86% of market share in 2022, increasing by 4% year-over-year since 2021, according to latest analysis by Wood Mackenzie, a global insight ...

## Indian Solar Exports Grow 227% YoY in 2023, Imports up 89%

Indian solar exports rose 227% year-over-year (YoY) to \$1.8 billion (~INR152.6 billion) in CY 2023 from \$561 million (~INR46.4 billion), according to recent data published by the ...



## Choosing the Right DC SPD for Solar Applications

The solar surge protection device is in a high-impedance state and has no impact on the solar PV system at typical operating voltages. When a transient voltage occurs ...





### Overvoltage Protection

In PV systems, the PV arrays are outdoors, frequently on buildings. Depending on the situation, the inverters are also installed outdoors. For this reason, even at the planning stage of the PV ...



### Global Solar PV Inverter Market Soars with Top Vendors

The surge in demand for solar PV technology was strongly evident, with a remarkable 48% year-over-year growth in PV inverters fueled by a global demand of 201 ...

### Solis recommends anti-grid surge in solar houses - pv magazine

"Of course, PV grid-tied inverters also have built-in AC and DC SPD, but grid surges are high and account for up to 70%, which can easily affect the inverter.



### Active thermal control for reliability improvement in photovoltaic

Single-phase T-type neutral point clamped (NPC) inverters have been extensively employed in small scale photovoltaic (PV) systems due to their outstanding power ...



### Global surge in solar PV inverter shipments highlights China's

The global energy landscape saw a significant shift in 2023, marked by a 56% increase in solar photovoltaic (PV) inverter shipments, to reach 536 GWac. China, a ...



### Why do solar projects need surge protection?

For installations with DC cable lengths under 10 m (33 ft), DC solar surge protection should be installed at a convenient point such as at inverters, combiner boxes or ...



### The solar module surplus: EUPD Research considers ...

The causes of the current oversupply are varied and include the solar learning curve, a need for the industry to be reordered, the fact Chinese manufacturers scaled much more rapidly than



### DC-side faults mechanism analysis and causes location for two ...

High-power PV power plants are mainly centralized inverters, while medium and low power generation systems are two-stage PV inverters. This paper focuses on the low ...



### Efficiency for photovoltaic inverter: A technological review

Photovoltaic inverter conversion efficiency is closely related to the energy yield of a photovoltaic system. Usually, the peak efficiency (?max) value from the inverter data ...

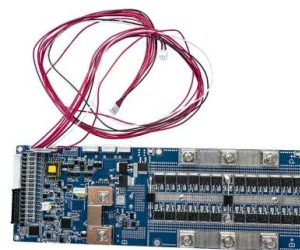


### Protection and isolation of photovoltaic installations

o miniature circuit breaker S802 PV-S, 16A o surge protection device OVR PV 40 1000 P - Surge protection device for 40kA 1000V DC photovoltaic installations with removable cartridges o ...

### Harmonics in Photovoltaic Inverters & Mitigation Techniques

This study aims to investigate the causes of harmonics in PV Inverters, effects of harmonics, mitigation techniques & recent integration requirements for harmonics. Harmonic Generation & ...



### Interactive: Insights into the booming PV inverter market

The PV inverter market has grown rapidly in recent years to achieve record global revenue of \$21 billion in 2023. PV inverters convert DC electricity produced by solar modules into AC electricity to b.



### Solar Inverter Failures: Causes, Consequences, and Impact on

By understanding these common solar inverter failures and their causes, impacts, and costs, asset managers can implement more effective maintenance strategies and ...



### Does my photovoltaic system need an EMP shield in case of an ...

Enphase Microinverters have integral surge protection, greater than most traditional inverters. However, if the surge has sufficient energy, the protection built into the microinverter can be ...

### Advancements in solar technology, markets, and investments - A ...

In 2021, the world reached 920 GW of on-grid solar PV, 9 GW of off-grid solar PV, 522 GWth of solar thermal power and 6.4 GW of concentrated solar power (CSP). The ...



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