

Press Release

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FIMER LAUNCHES TWO NEW PLATFORMS FOR THE UTILITY PV MARKET

Leading tier one global solar inverter supplier, FIMER, has announced the launch of two new platforms for the utility-scale sector – a high-power multi-MPPT string inverter and a modular conversion solution – which are designed to cater for both decentralized and centralized applications covering 100 percent of utility applications.

With the most recent Renewable Energy Market Update from the International Energy Agency stating that the share of utility-scale applications will increase from over 55 percent in 2020 to almost 70 percent in 2022, the need for reliable, flexible and high-power density solutions is now paramount to meeting market requirements, today and in the future.

As a result, string solutions have become the most popular technology for the global utility market, thanks to the modular conversion offering higher yield, minimal long-term risk and lower O&M efforts to achieve lowest LCOE compared to a central solution.

FIMER's new PVS-350 is the most powerful and power dense multi-MPPT string inverter in the solar industry, optimized for decentralized PV system architectures with a maximum efficiency of η_{MAX} > 99 percent to ensure the highest energy yield. It also has the smallest footprint when compared to other similar products, and significantly reduces the risk of downtime that can occur with central inverters.

For centralized system architectures – which currently account for almost 40 percent of the market – FIMER is also launching PVS-260/PVS-300, a fully-modular solution engineered with a single-MPPT string platform.

It can easily replace central inverters in more traditional designs, significantly improving performance and lowering BoP costs, optimizing the LCOE – achieving a **2.3 percent reduction on the LCOE** of a modular conversion architecture compared to a central solution. It also has higher system availability, above 99.9 percent compared to 99.5 percent maximum from central solutions.

In addition, the PVS-260/PVS-300 has a large capacity combined with super-compact design single MPPT power block, to enable system designers to keep a 'centralized' system architecture if preferred. All power electronics are also concentrated nearby to the other critical AC power assets to simplify control and routine maintenance.

By combining the power modules in a factory pre-assembled and pretested MV station, the new platform can compete with multi-megawatt scale station designs of the latest central inverters, allowing system designers to apply the modular architecture to systems of any size.

The new platforms will also be easily able to integrate with future requirements for battery storage, providing a whole-system solution for the utility market now and in the future.

While the move away from central inverters to string technologies in the utility sector has increased over the past five years, FIMER recognizes that centralized architectures are still prevalent. That is why the company has developed the PVS-350 inverter and PVS-260/PVS-300 modular conversion platform to cater for both decentralized and centralized applications.

Watch the video and get more information on the two new platforms here.



Maren Schmidt, Managing Director of the Utility line of business, explained: "With the utility sector predicted to grow significantly over the next few years, we wanted to offer a solution that maximizes ROI on both conventional system architectures and all other emerging system arrangements including storage, while maintaining the essential values of modularity."

"These unique-to-the-market solutions are truly ground-breaking platforms for the utility segment, as they are able to meet the needs of utility-scale customers now, as well as easily adapt to and integrate with technologies in the future."

Filippo Carzaniga, Chairman at FIMER, added: "It is a rapidly growing market and, as a result, FIMER recently announced plans to create a dedicated Research & Development Center in Italy for utility. As part of this commitment to R&D, we have exciting launches planned later this year, which will bring more innovation to the market."

FIMER has also launched its 'new era of FIMER', a 360° immersive virtual experience which allows customers from all over the world to explore FIMER's facilities, innovotations and processes at its global HQ in Vimercate and its Terranuova Bracciolini R&D and production plant, from their own laptops or smart devices.

Discover FIMER's 360° Virtual Tour here

Notes to editors

Key features of the new PVS-350 multi-MPPT inverter:

- The most powerful string inverter in Utility (350 kVA); Power to weight ratio > 3kW/kg
- Ultra High-Power module Ready (182mm/210mm cells) with 12 MPPT rated 45A
- Maximum energy yield, $\eta_{MAX} > 99$ percent
- String diagnosis through online IV curve analysis

Thanks to the **record-high capacity and power-to-weight ratio**, up to 30% savings can be achieved on transportation and installation costs and up to 15% higher AC capacity for the MV station compared to other decentralized conversion solution available today. This means less stations per MW AC of installed power, with a cumulative saving that may exceed 0.2 Euro cents/watt on a 100MW system.

The input ratings of the Multi-MPPT converter have been optimized to fully exploit the benefits of the latest ultra-high power crystalline modules with 182x182mm and 210x210mm cells, enabling additional system-level costs savings ranging from 0.5 to 0.9 Euro cents/watt compared to systems designed with conventional modules (i.e. 166x166mm cells).

Key features of PVS-260/PVS-300 modular conversion solution:

FIMER's PVS-260/PVS-300 solution makes it possible to align the capital costs of the modular solution with those of a centralized solution, while ensuring the following benefits that are proper of a modular conversion:

- Higher system availability, above 99.9 percent compared to 99.5 percent maximum from central solutions.
- Lower O&M efforts, typically 1,3 Euro cents/watt less than central solution over 25 years.

This achieves a remarkable **2.3 percent reduction on the LCOE** of a modular conversion architecture compared to a central solution.



- Record-high power density and power capacity, 2 times of any other inverter of this category available on the market, means less units to install for the same MVA capacity.

- Centralized system architecture with modular conversion concept to replace any conventional central inverter solution within the same footprint with an unmatched flexibility and granularity. Combining 6 to 24 inverter modules in 2 units increment the capacity of the fully equipped ultra-compact plug & play 40 feet Medium Voltage Compact Skid can be selected at any value between 1560kVA to 7200kVA

- **Minimum system downtime, availability > 99.9 percent** thanks to the inherent fault tolerance guaranteed by modular conversion which is not addressable with central inverters. Reduced MTTR compared to the multi-MW central inverters which requires long and costly on-site repairs by specialized personnel.

- Reduced O&M costs, typically 1.3 Eurocents/Watt less than a central inverter solution over 25 years, thanks to the granularity of power conversion accomplished with smaller and swappable power blocks.

About FIMER

FIMER is the fourth largest, tier one, solar inverter supplier in the world. Specializing in solar inverters and mobility systems, it has over 1100 employees worldwide and offers a comprehensive solar solutions portfolio across all applications. FIMER's skills are further strengthened by its bold and agile approach that sees it consistently invest in R&D. With a presence in 25 countries together with local training centers and manufacturing hubs, FIMER remains close to its customers and the ever-evolving dynamics of the energy industry.

For further details, visit our website www.fimer.com and follow our social channels:

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