



SMA ENERGY SYSTEM LARGE SCALE

# Sunny Highpower PEAK3: Customized for tomorrow, today.

A superior, modular 1,500 VDC solution  
for utility power plants, ideally suited for  
use with **ennexOS**



# Accelerate large-scale installation speed.



## 1500 V<sub>DC</sub>, 125/150 kW, compact design

PEAK3 stands for pure power. With its compact design, the inverter offers maximum power density at minimum weight. This results in less expensive transportation and simplified installation. In combination with project-specific DC Combiner Boxes, the PV array can be oversized up to 150%. The Data Manager powered by ennexOS completes the system and enables it to fulfill all of the grid operator's requirements.

### Maximum safety and reliability

The PEAK3 inverter focuses on what is most important – maximum yield and optimal plant availability. All features and functionality have been specifically engineered to reduce weight, minimize potential error sources and maximize efficiency. Field-proven OptiCool™ active cooling technology ensures reliable, long-term operation.

### Flexible, scalable plant design

The PEAK3 system solution combines the advantages of a decentralized system layout with those of the central inverter concept. The DC Combiner Boxes enable efficient planning and easy expansion of large-scale solar plants even on irregular terrain. Thanks to the modular approach, projects can be scaled both in terms of power and function. This means maximum flexibility in the plant design.

## Ready for the digital energy world of tomorrow

The PEAK3 system solution is ready for ennexOS, SMA's ground breaking digital platform. ennexOS converges the data of all relevant energy sectors to achieve modern, forward-looking energy solutions. The platform is regularly updated and currently offers powerful features such as satellite-based performance ratio monitoring. Further information: [www.ennexos.com](http://www.ennexos.com)



PEAK3 solution with inverter, DC combiner boxes and Data Manager.



## PEAK3 - the modular solution for utility-scale PV plants.

### Fast installation, easy commissioning

The PEAK3 system solution offers smart functionalities for quick and safe installation of all devices. Ergonomic grips and the integrated hook-in mechanism simplify the mounting of the inverters. Large, stiff DC cables can be conveniently routed via a separable connection plate and allow hassle-free connection. Centralized commissioning and control is easily achieved with the SMA Data Manager.

### Efficient control, convenient monitoring

Each device can be controlled directly via reliable, fast Ethernet communication between the Data Manager and inverter. The entire plant portfolio can be centrally monitored with the new Sunny Portal powered by ennexOS. Changes to the configuration are easily made across plants without setting up multiple VPN connections. Additional monitoring systems can access all devices via the open Modbus/TCP interface.

# Modular, high performance system.

## The future-proof solution that scales with your business

More than 20 years of utility experience have gone into the development of the PEAK3. This 1,500 VDC inverter offers high power density in a modular architecture that achieves a cost-optimized system for utility-scale PV integrators.



PEAK3 extensions with SMA Engineering Services, Smart Connected for Utility Plants, Weather Station and Remote I/O

## Tailored to your unique needs



# PEAK3 - The solution to utility PV's greatest challenges.



## ennexOS

- Cross sector energy management platform
- Cutting-edge monitoring and control solution for decentralized power plants
- Access to quickly evolving energy markets with new business opportunities



## SMA ENGINEERING SERVICES

- Comprehensive consulting by technical experts from early project stages
- Static generator evaluation including load flow and short-circuit analysis
- Optimization of plant behavior in systems with extended Data Manager



## SMART CONNECTED FOR UTILITY PLANTS

- Automatic inverter monitoring by SMA
- Proactive communication of system-wide events
- Lower lifecycle service costs – no on-site diagnosis needed



## ADDITIONAL PRODUCTS

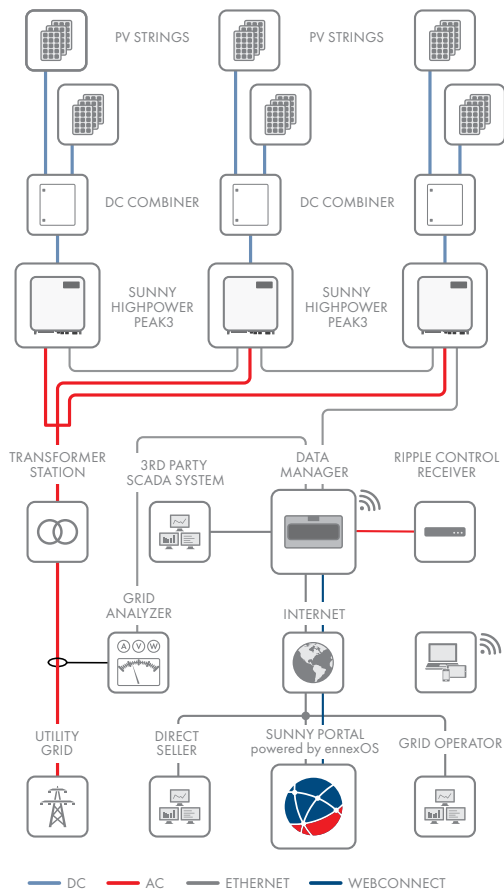
- **Weather Station:** Professional measuring equipment for synchronous logging of temperature, relative humidity and irradiance
- **Remote I/O:** The preconfigured I/O systems are perfectly coordinated with ennexOS and can be easily integrated into a system

# Customized for tomorrow, today.

Decentralized solution with up to 150 kW for large-scale PV power plants

Thanks to an intelligent system structure, all inverters and the Data Manager are installed centrally. The DC Combiner Boxes are distributed in the field. The result: maximum performance, cost-optimized cabling and improved installation and maintenance.

## System diagram



Ideally suited for use with **ennexOS**





## SMA Solutions for O&M

Even the most advanced technology requires someone to look after it. Executing a successful O&M strategy is paramount to the long-term viability and profitability of a commercial PV system. Vital O&M services such as NERC/CIP-compliant remote monitoring with 24/7 customer support, preventative maintenance, system performance evaluation, emergency response, warranty administration, sophisticated aerial thermography, and more, are all backed by the world's number one service team.

With an O&M portfolio of nearly 3 GW, 100+ GW of PV installed globally and thousands of commercial and utility projects completed worldwide—the numbers say it all. SMA is the PV industry's best financial backstop and long-term partner who places your success as our top priority.

### Our core competencies

- » PV Technology Leadership
- » Energy Management
- » Inverter Expertise
- » Medium Voltage Expertise
- » Remote Monitoring
- » Communications Expertise
- » Performance Analytics
- » Grid Management
- » Impeccable Safety Record
- » 24/7 Operations Centers
- » Professional Services
- » Applications Engineering
- » Project Management
- » Contract Management
- » Supply Chain & Logistics
- » Spare Parts Management
- » Warranty Management





ENERGY  
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CHANGES



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