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How to completely "switch off" the safety hazards of rooftop PV systems ?

Climate change and the accelerated transition of the global energy structure are ushering in unprecedented development opportunities for the solar industry worldwide. Along with this, there are frequent safety accidents around the world, and the importance of safety is becoming more and more prominent in the solar industry, especially in the distributed fi9|d.

Rooftop PV systems often face safety hazards such as fire and high voltage

Comm9rcia| and industria| bui|dings ar9 high-va|u9 ass9ts, and in th9 9v9nt of a fir9, th9 dir9ct |oss9s and indirect losses due to business interruption can be enormous.

PV modules usually have an output voltage of 30~60V, but when the modules are connected to a string, the voltage can reach 600~1500V in residential or industrial/commercial scenarios, which is very dangerous for system installers, operation and maintenance personnel, and emergency responders.

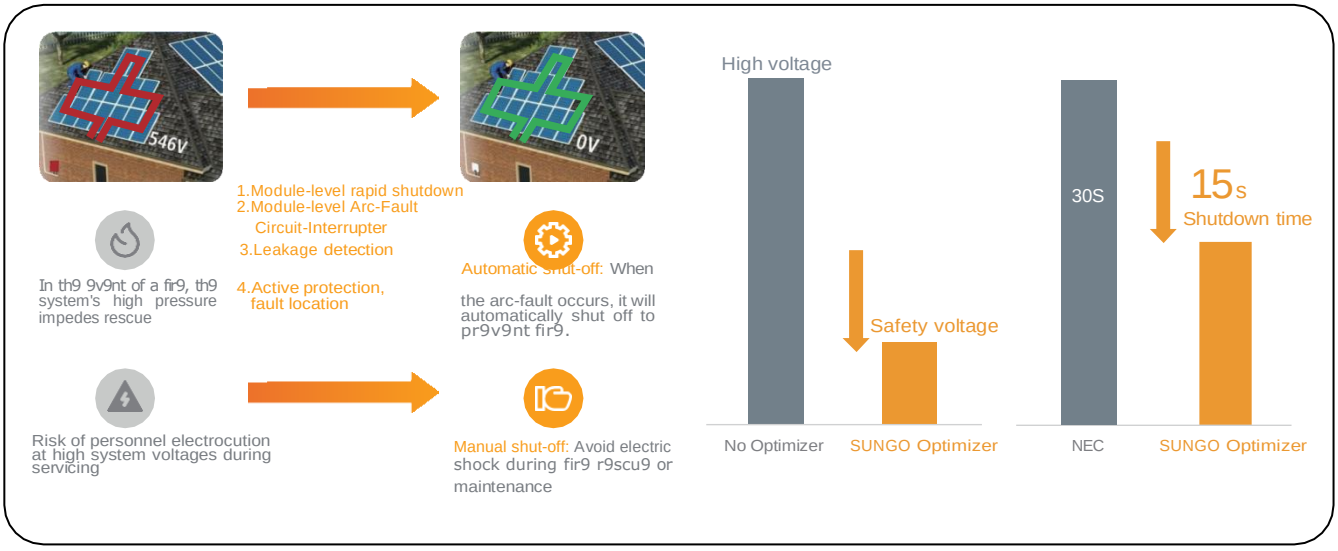
There are many problems with the traditional scheme of system shutdown control through inverters.

- The shutdown function of the PV inverters only interrupts the current, and the entire PV system remains at a dangerous voltage level.
- After the usual roof PV system shutdown, there is a risk of dangerous voltages/currents in the modules, wiring, and lines connected to the inverter as the sun shines on them.
- String-|9v9| monitoring syst9m is difficu|t to |ocat9 th9 prob|9matic modu|9s, r9quiring on-sit9 troub|9shooting by O&M staff, which increases many potential risks.

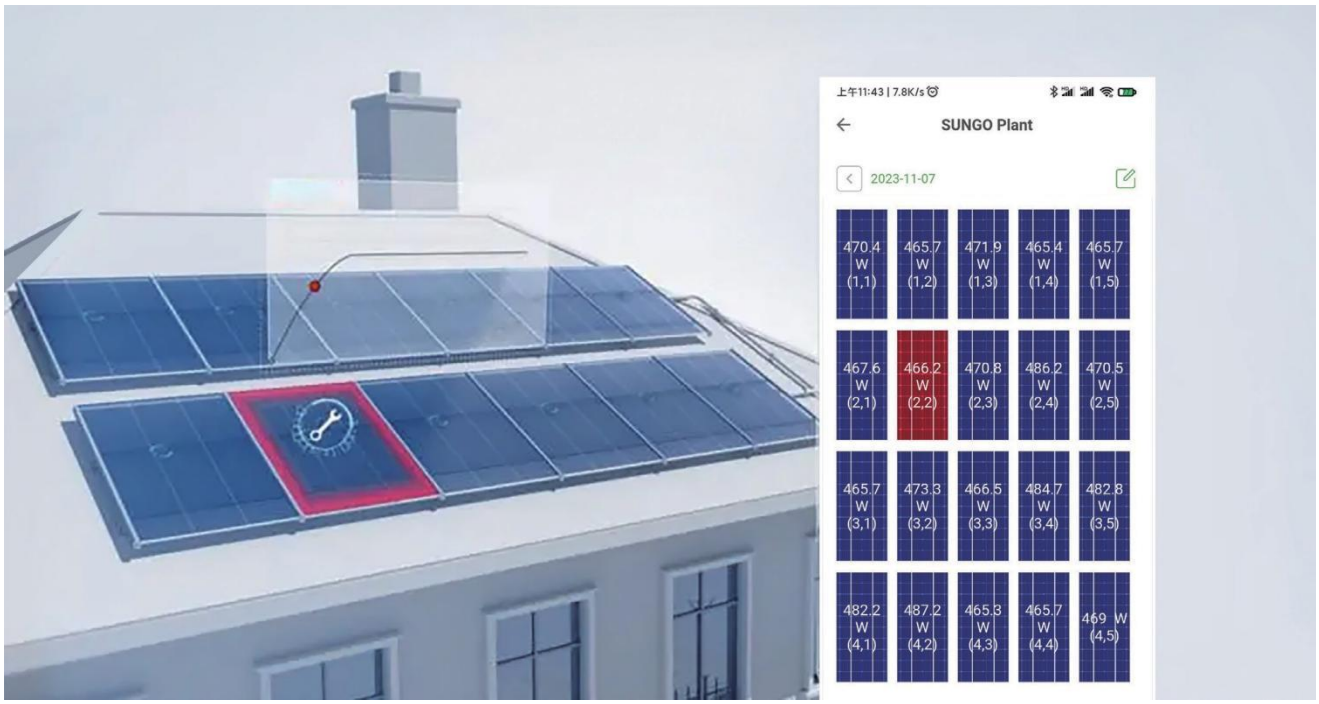
Equipped with an optimizer for unparalleled roof safety and optimization

At present, governments have been paying more and more attention to the safety of distributed power plants. The United States, Germany, Thailand and other countries around the world have put forward mandatory standards for the ability of the roof fast shutdown, China in recent years also put forward the corresponding requirements for the fast shutdown, "the closer the people, the lower the voltage" is the necessary condition to ensure the safety of distributed photovoltaic development.

The fast shutdown function integrated into the optimizer can quickly reduce the dangerous voltage on the roof to a safe voltage of 5V within 15s, avoiding further deterioration of the hazard while safeguarding the safety of the relief workers.



In addition, The optimizer with module-level remote monitoring and automated alarms is able to detect the potential safety hazard in the system and pinpoint problematic modules.

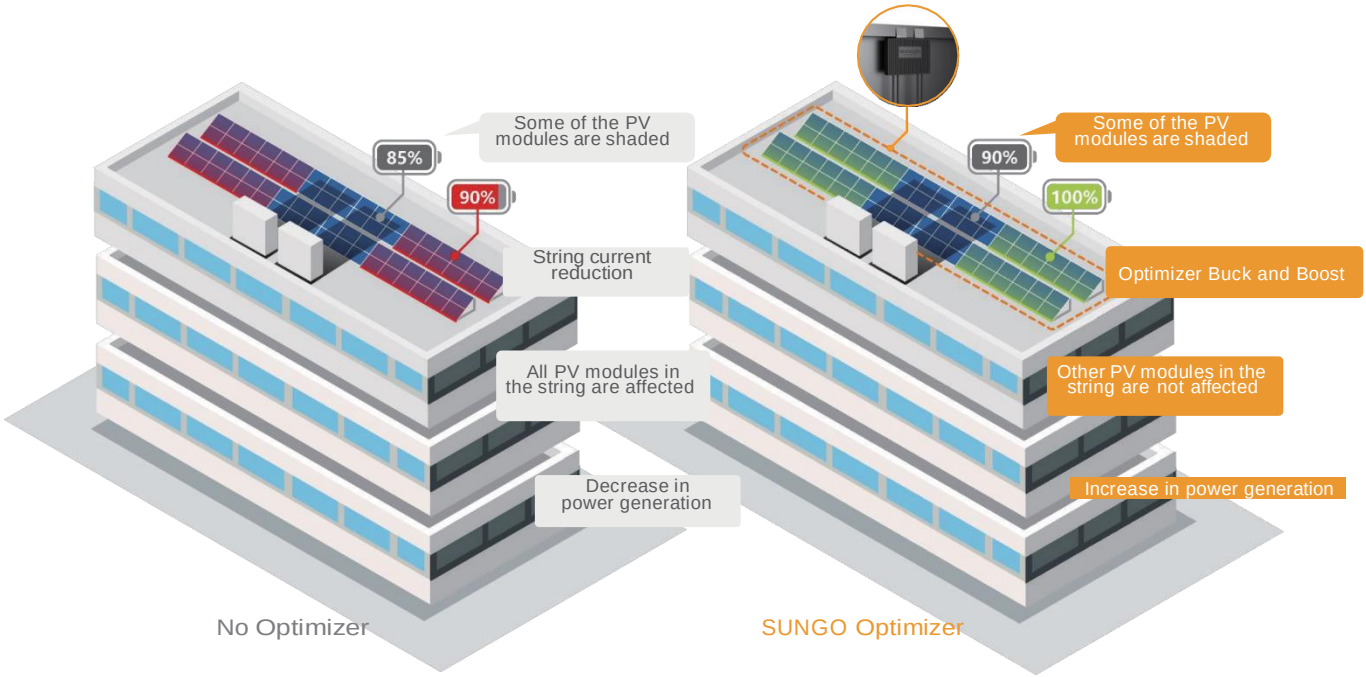


An addition, the optimizer base has optimization features that track the maximum power of each module in real-time, rather than each string. The ability to address issues such as shadow shading and module mismatch to improve system power generation is widely recognized.

Module-level optimization

Module-level optimization can improve power generation by 5% to 30%.

Component-level independent optimization ensures that each component operates at its own optimum and tracks the maximum current of the string.



SUNGO：Reliable partner in the solar industry

With 15 years of deep plowing into the industry, Sungo Energy is committed to becoming a reliable global provider of user-side photovoltaic storage product solutions. Sungo's unique Smart PV Optimizer is aims to get more power for the PV system wand integrating excellen ty features such as fast shutdown and module-level monitoring to protect people and property u e roof.

SUNGO-OPT

Optimization

SUNGO-OPT PRO

Optimization

SUNGO-SOPT

Optimization
Shutdown

SUNGO-iOPT

Optimization
Shutdown
Monitoring

Installation Example Introduction

- Location of the power station: Netherlands
- Completion: March 2022
- Number of optimizers: 32 pieces
- Overall improvement: 22.3%

- Location of the power station: Switzerland
- Completion: June 2022
- Number of optimizers: 500 pieces
- Overall improvement: 22%

- Location of the power station: Belgium
- Completion: April 2022
- Number of optimizers: 200 pieces
- Overall improvement: 17.2%

- Location of the power station: Italy
- Completion: September 2022
- Number of optimizers: 1,500 pieces
- Combined improvement: 15.9%

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