SUNGROW

SP600S POWER OPTIMIZER

PRODUCT INTRODUCTION

2022.07.15

Content

Why Optimizer

SP600S Power Optimizer

Higher yield

Enhancing green power benefits is a core concern for consumers

Flexible installation

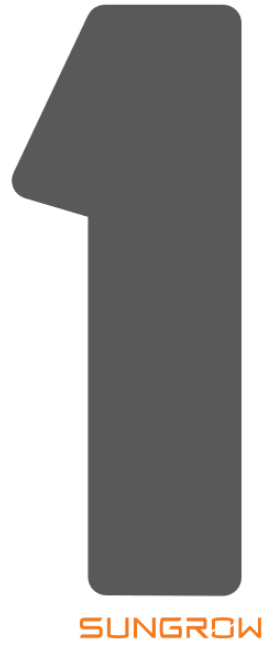
Expand installation area even with different orientation

Higher safety

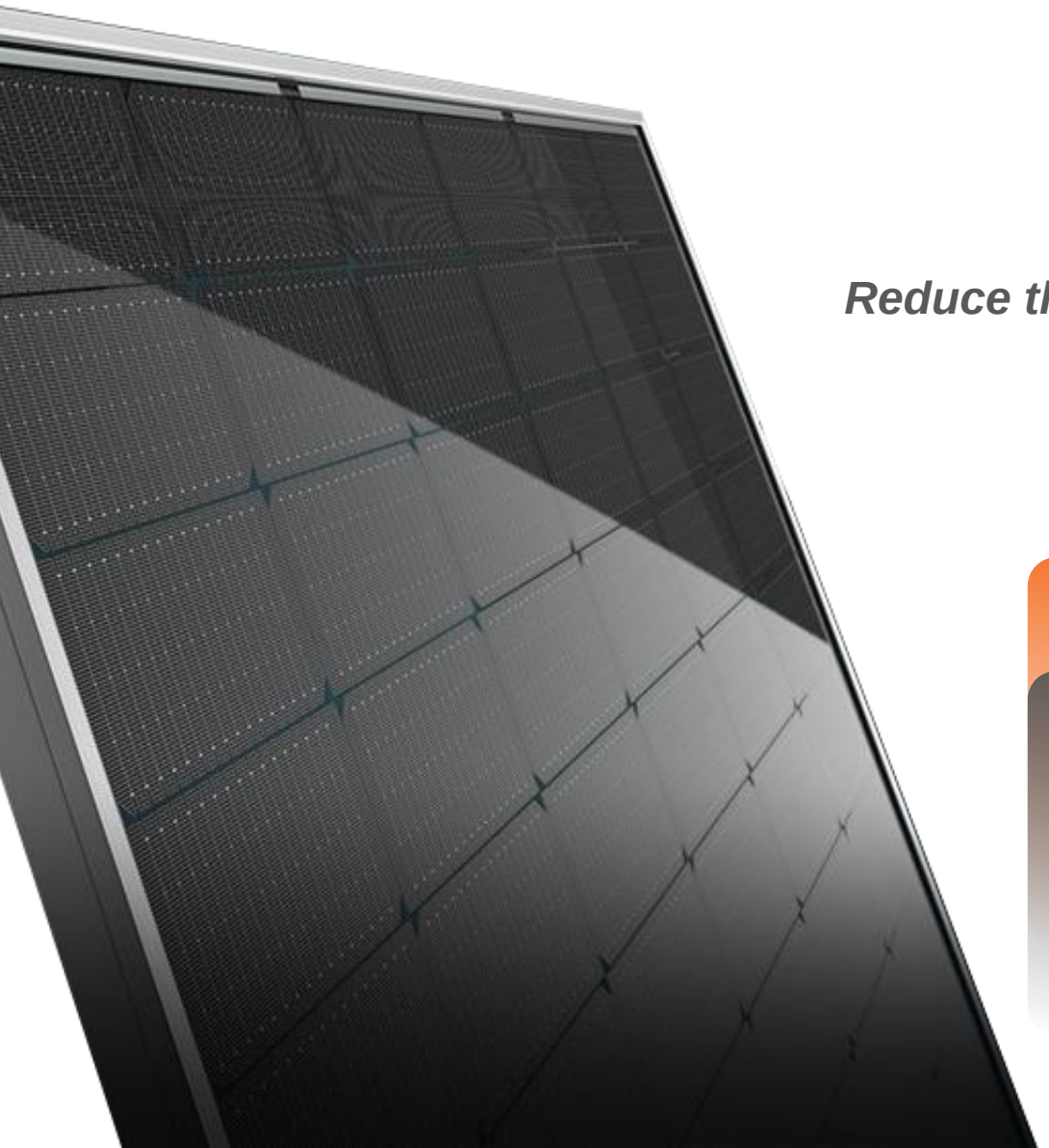
Many countries have successively introduced safety management regulations

Better O&M

A large number of power plants are distributed in a scattered manner

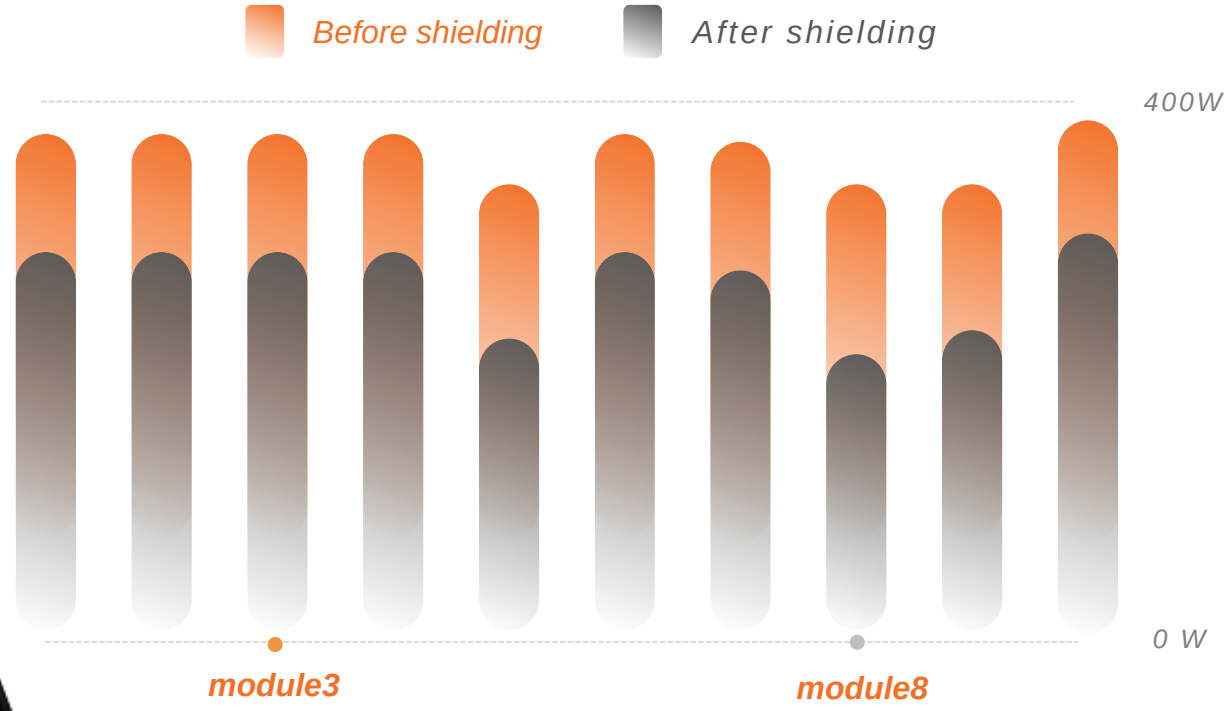


HIGHER YIELD



Enhancing green power benefits is a core demand of consumers

Reduce the impact of module mismatch on system generating capacity



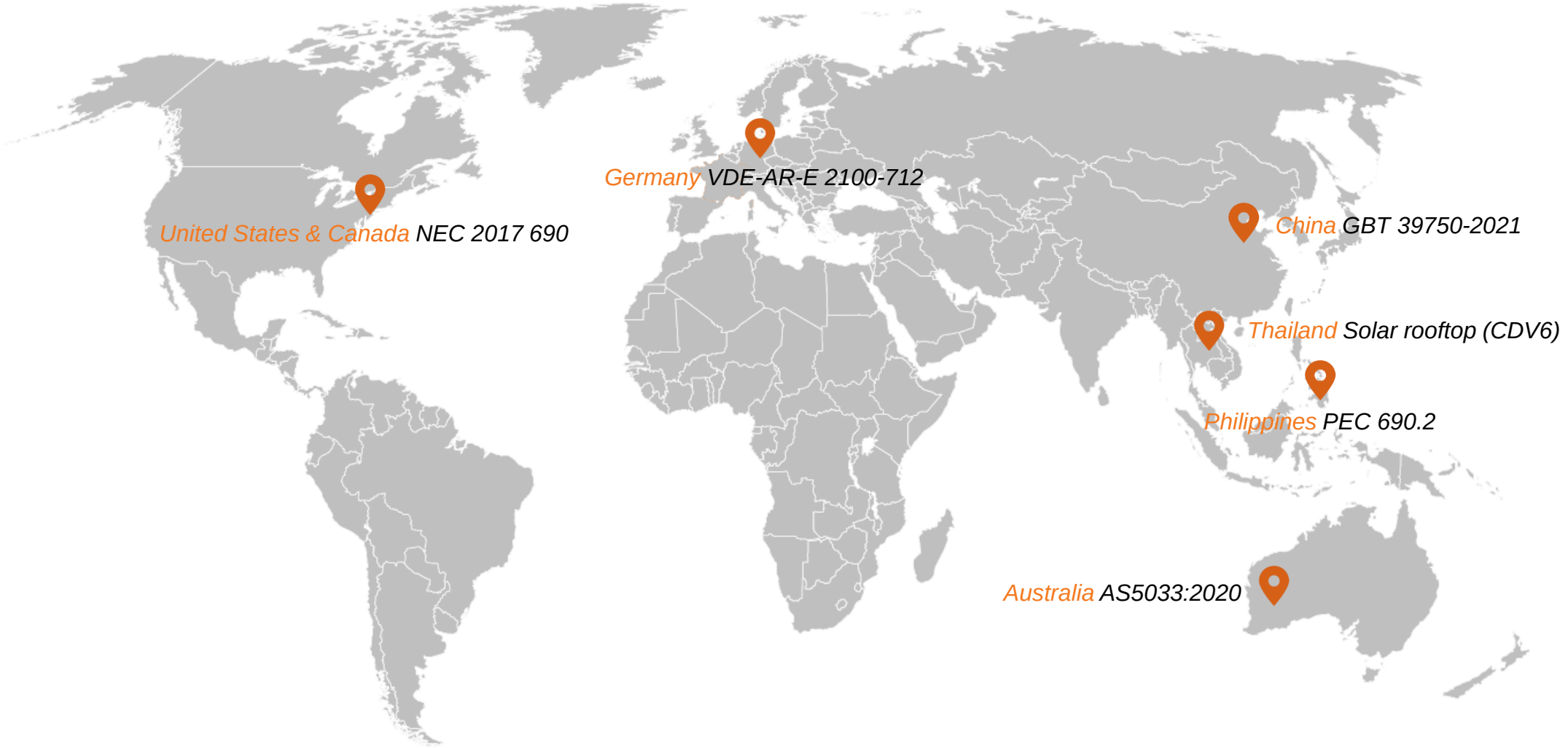
FLEXIBLE INSTALLATION

Expand installation area with different orientation

HIGHER SAFETY

Green power safety has become an important issue of global concern

Many countries have successively introduced safety management regulations



BETTER O&M

More Efficient O&M if getting more and more important for customers

A large number of power plants are distributed in a scattered manner

465 ***power plants***
maintained by a dealer in Henan

5306 ***power plants***
maintained by a dealer in Shandong

What We Offer

SP600S Power Optimizer

Smart optimizer product by Sungrow

Max. support 600W, 16A pv panel

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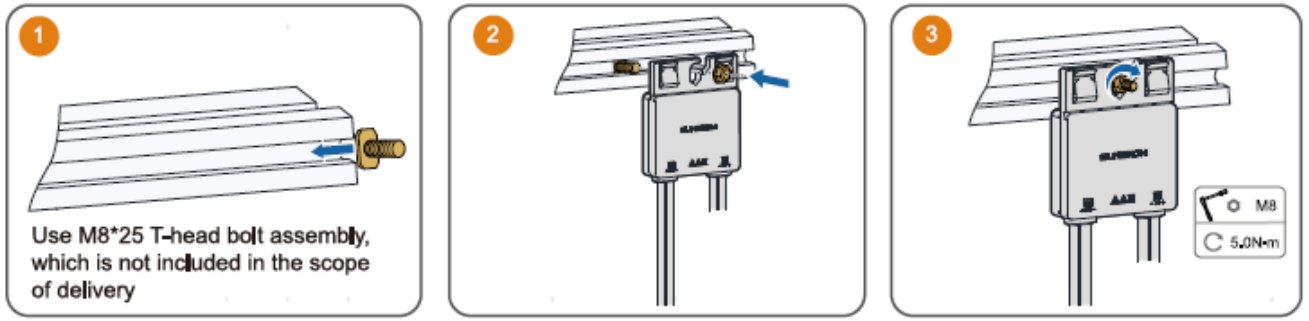
MAIN PARAMETERS

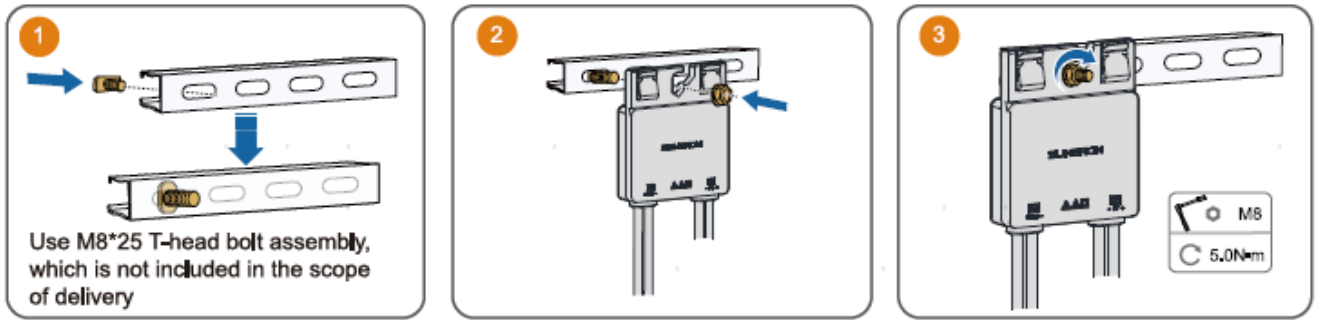
Model	SP600S
Input	
Rated input power	600W
Max. input voltage	80V
MPPT voltage range	8V-80V
Max short-circuit current	20A
Output	
Max. output voltage	80V
Max. output current	16A
Bypass output	Yes
Output shutdown voltage	1V±0.1V
General Data	
Dimensions (W*H*D)	86mm x 108mm x 25mm(w/o cable)
Weight	0.5kg±（0.02kg）
Communication	PLC
Input connecter	PV connector（MC4 or MC4 compatible）
Input Wire Length	150mm(±10mm)
Onput connecter	PV connector（MC4 or MC4 compatible）
Onput Wire Length	1200mm(±10mm)
Operating ambient temperature range	-40℃~85℃
Allowable relative humidity range (non-condensing)	0%~95%
Degree of protection	IP68

INSTALLATION METHOD

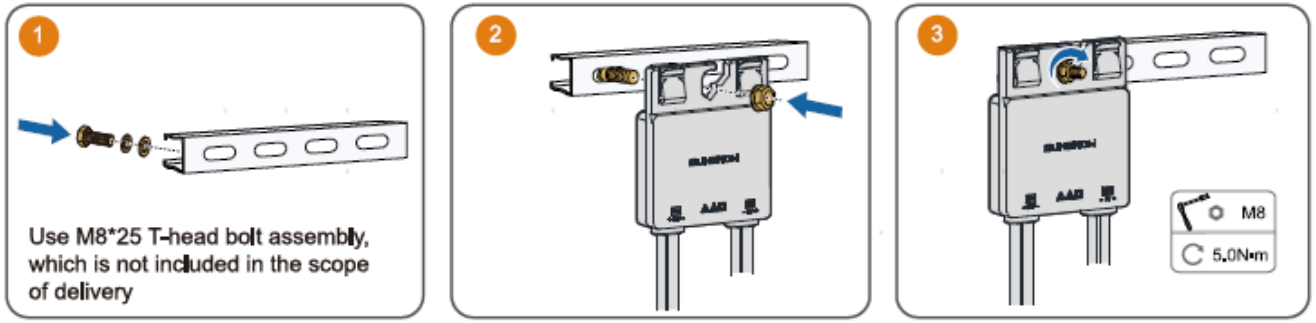
Installed on aluminum guide rail



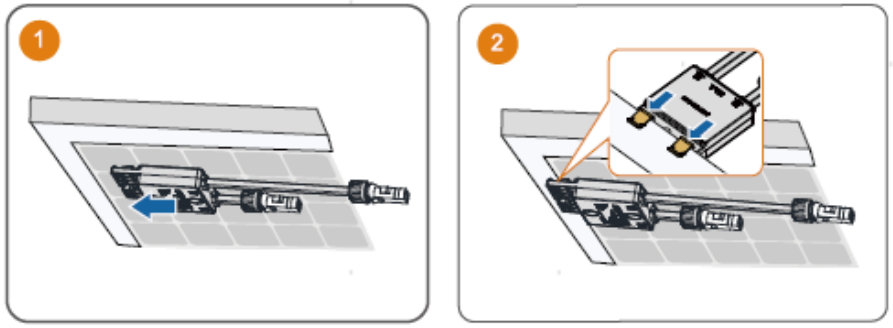
Installed on steel guide rail (T-head bolt)



Installed on steel guide rail (bolt assembly)

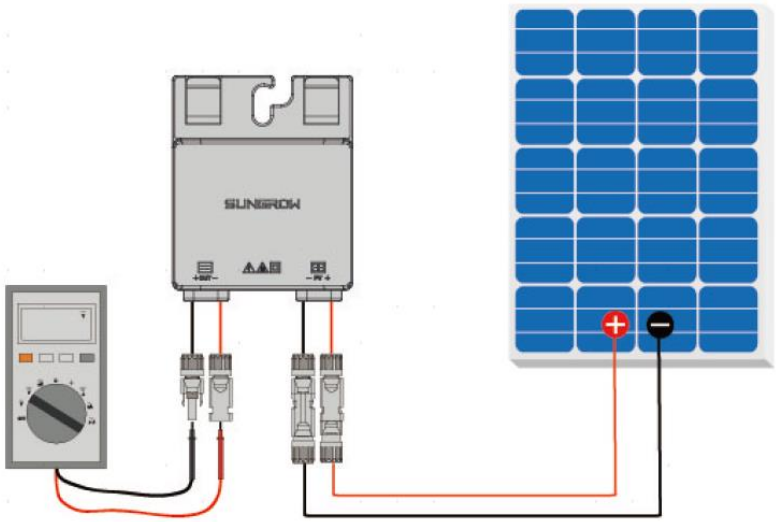


Installed on PV module (Clip)

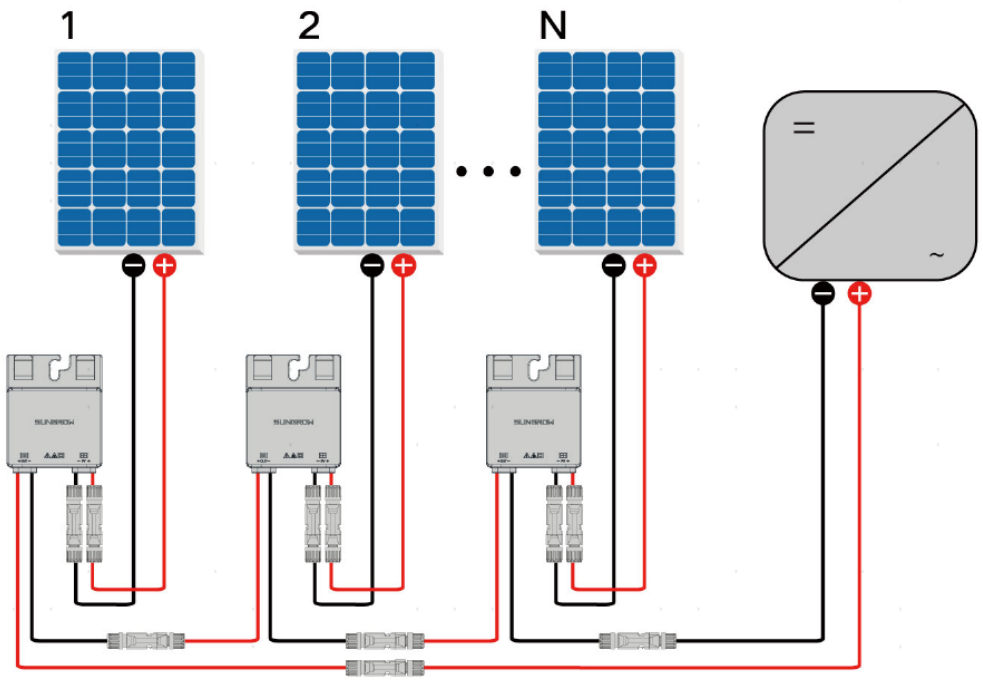


SYSTEM CONNECTION

Step 1



Step 2



System Design

SP600S Power Optimizer

Flexible adaptation to multiple models

More freedom in product selection

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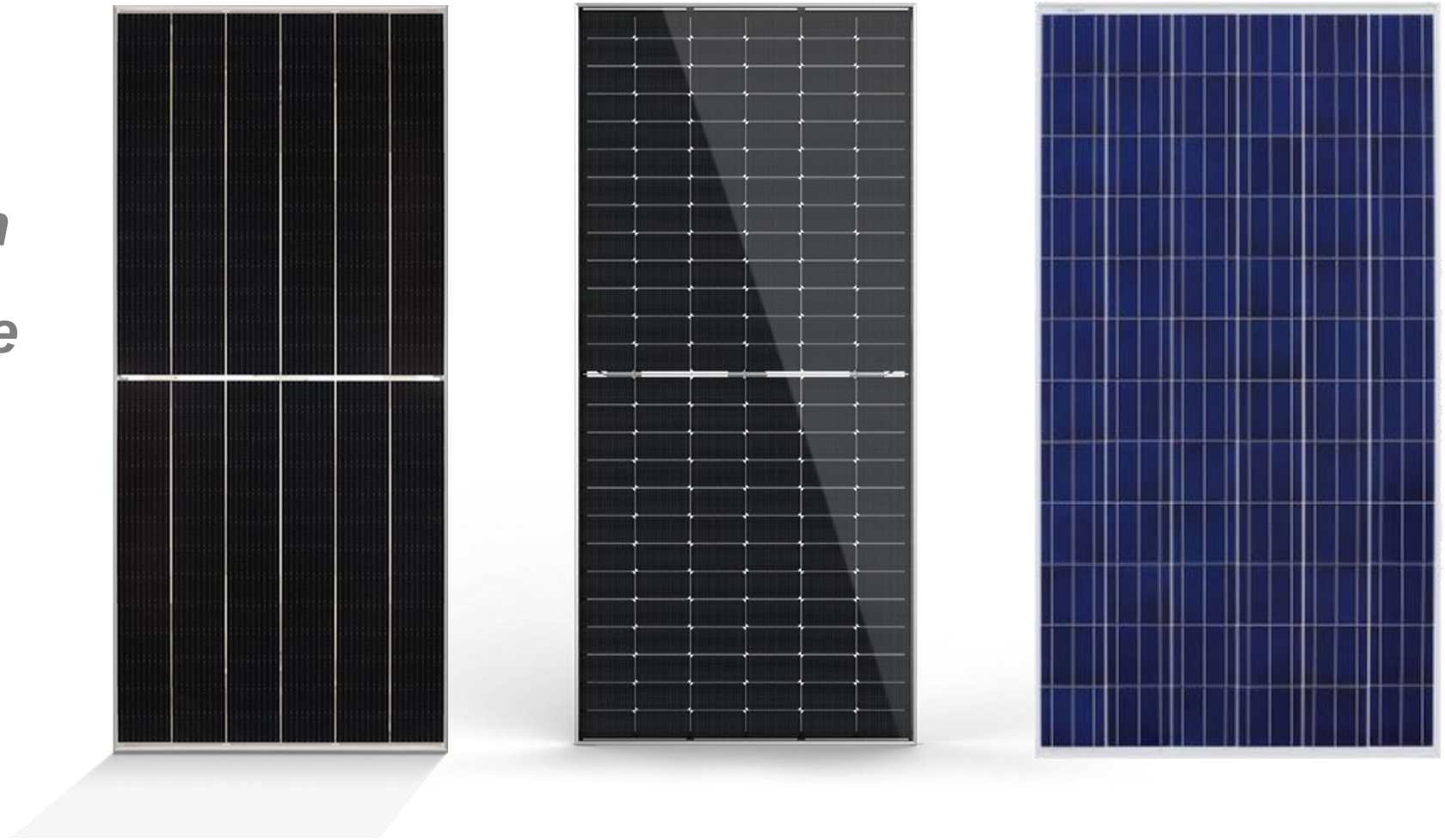
MODULE

Compatible with major pv module type in the market



INVERTERS

Flexible adaptation to multiple models

01

SGRS series

02

SHRS series

03

SGCX-P2 series

- Full system installation

Advantages Analysis

SP600S Power Optimizer

- More power generation, higher yield
- Flexible system design, easy to install
- Safe and reliable
- Module-level precise O&M

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Advantage Analysis

More power generation, higher yield

1

Module-level optimization

4%~30% *more power generation on average*

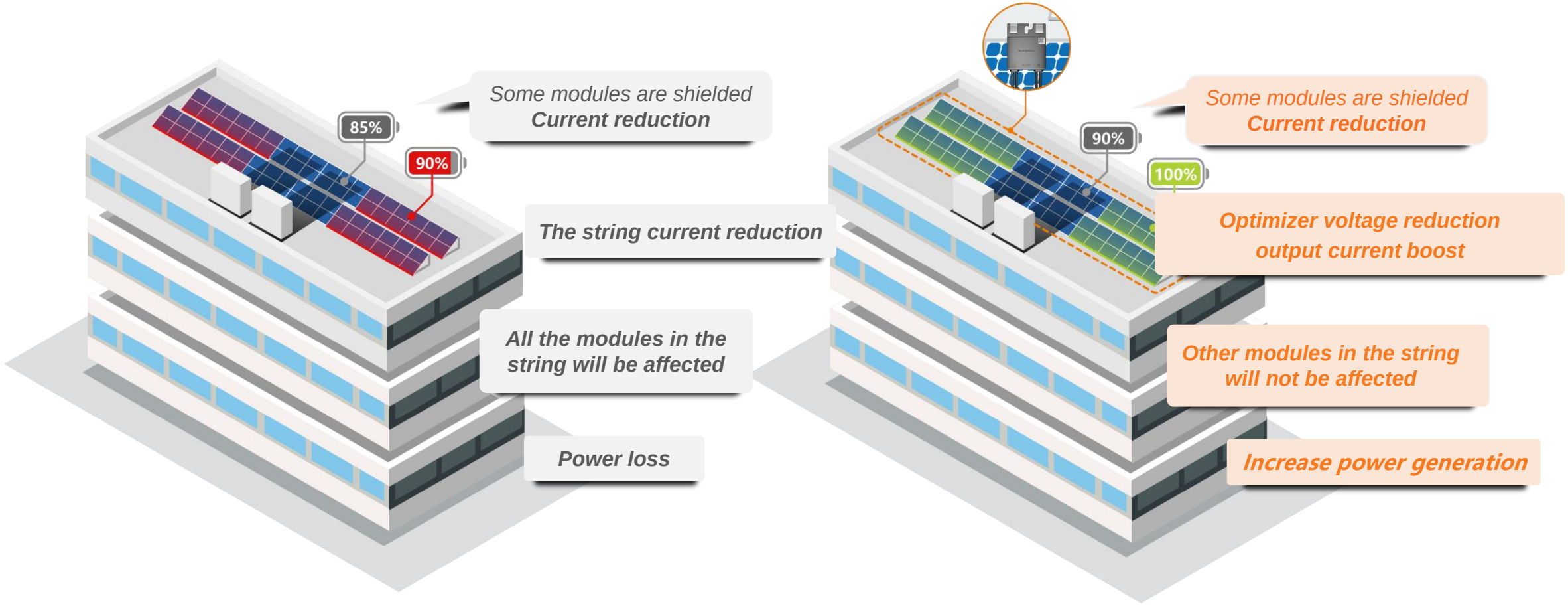
2

Shadeproof control

Effectively reduce system consumption by ***1.5%***

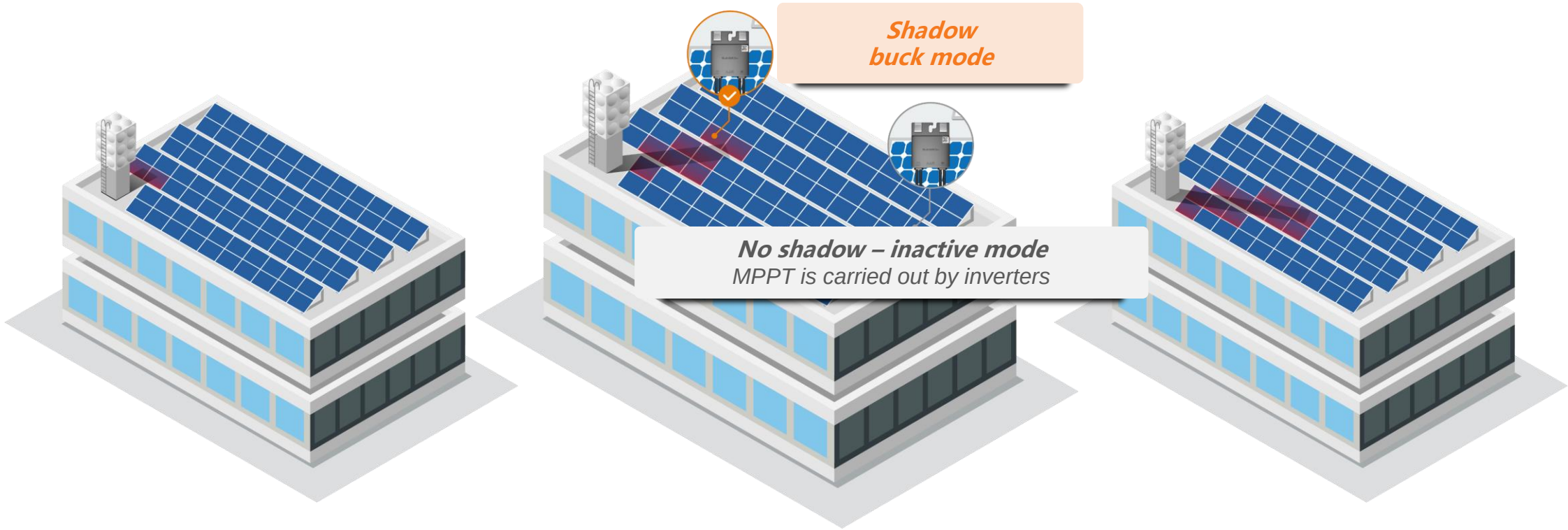
Module-level optimization increase power generation by 4%~30%

Module-level optimization for module independence ensure that each module works in the optimal operating state



Shadeproof control reduce system consumption by 1.5%

shadeproof is used to dynamically adjust the optimizer operation status to ensure that the system is in the optimal operating state



——shadows in different time segments——

Advantages Analysis

Flexible design, easy to install

1

Module-level optimization, flexible design

10%~70% *more installations on average*
Support flexible installation in multiple ways

2

2in1 installation design, easy to install

The snap-fit installation is ***tool-free*** *and can be completed* ***within 30s****, saving* ***nearly 30%*** *of installation time*

3

600W & 16A, free choice of PV modules

Adaptive to current modules and compatible with future modules with higher power

Module-level optimization increases installations by 10%~70%

Module-level optimization with utilization of roof space

MPPT channel limit & PV string short board effect

Shadow area A/B/C no module installed

Module-level optimization

Shadow area A/B/C modules can be installed

2in1 installation design, easy to install

*The snap-fit installation is **tool-free** and can be completed **within 30s**, saving nearly **30%** of installation time*

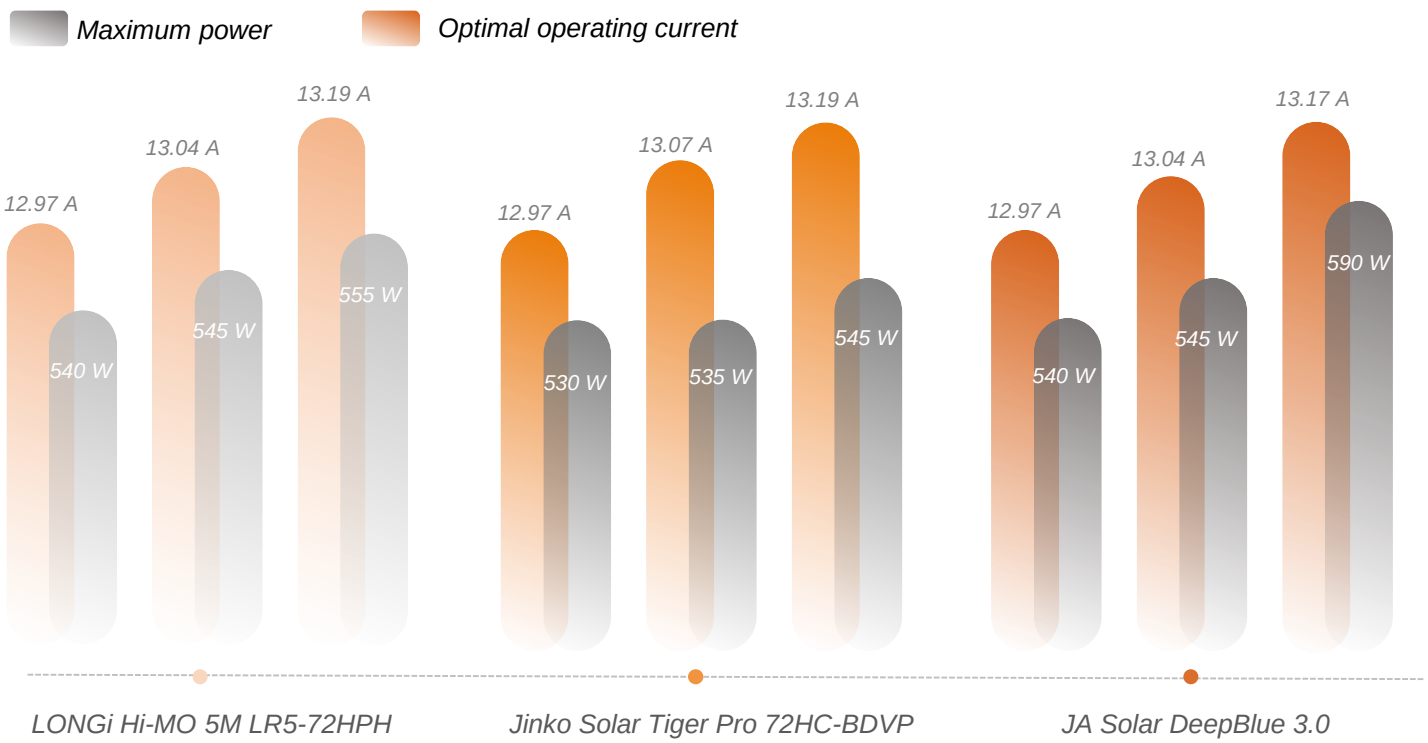
● *Front of the snap-fit*

● *Side of the snap-fit*

● *Bolt mounting position*

600 W high power and 16 A high current, free choice of PV modules

Adaptive to current modules and compatible with future modules with higher power



Module power upgrade is inevitable

Driven by the large-scale silicon wafer technology, modules supporting power above 500 W will be the mainstream

SP600S, fully adaptive and perfectly compatible

Fully adaptive to small and medium power modules in the market and perfectly compatible with high power modules

Advantage Analysis

Safe and reliable

1

Module-level shutdown

*Shutdown within **20s**, much shorter than required by **NEC2017 690** standard*

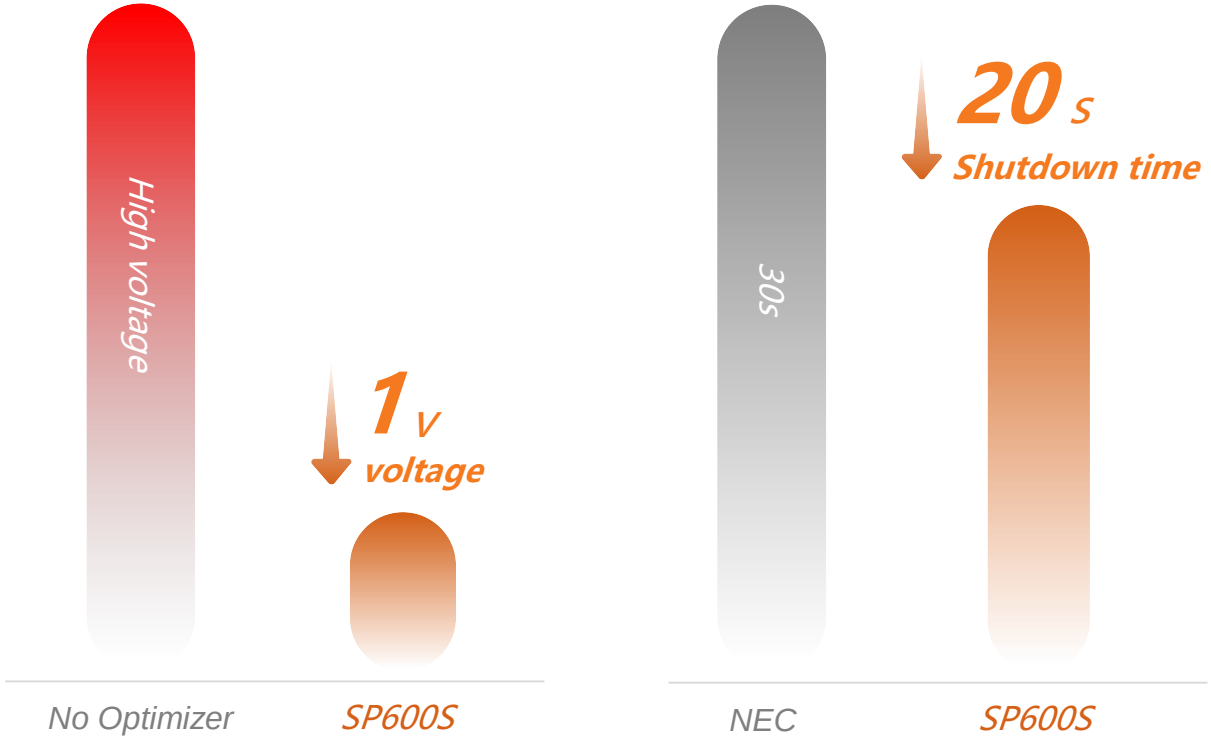
2

IP68 & C5 protection

Long-term stable operation in harsh environments

Module-level shutdown, safety protection upgrade

*Shutdown within **20s**, much shorter than required by **NEC**standard*



4 shutdown modes

- AC power cut-off
- External switch
- iSolarCloud

Automatic shutdown

In emergency scenarios such as arcs and fires

IP68 & C5 protection

Long-term stable operation in harsh environments

- *Internal gluing to protect components*
- *Fully sealed plastic case, resistant to corrosion, UV, and high temperature*

Advantage Analysis

Module-level precise O&M

1

One-tap scanning

*Access to iSolarCloud **within 5s** and generate **1:1** graphical layout*

2

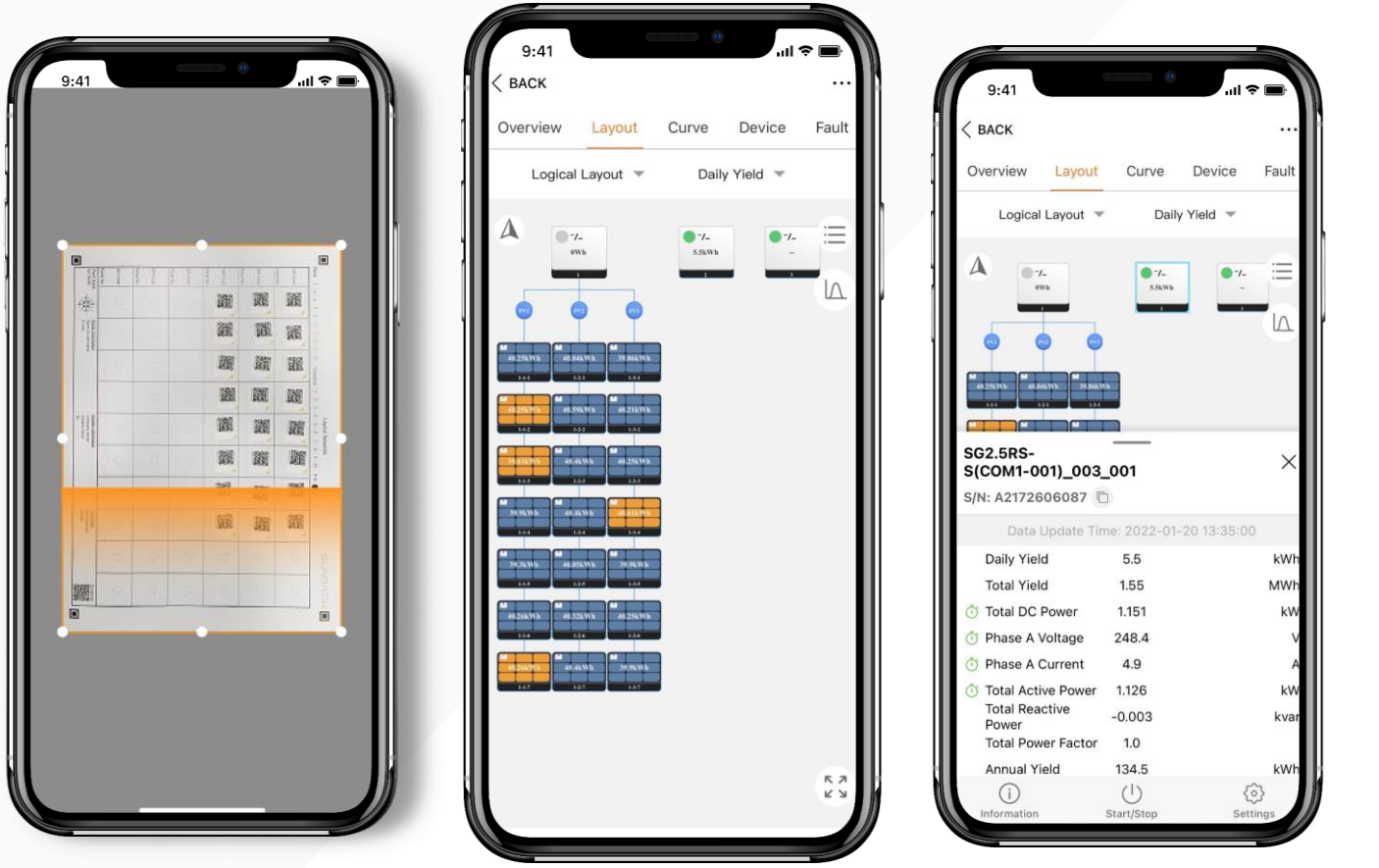
Module-level IV scan and diagnosis

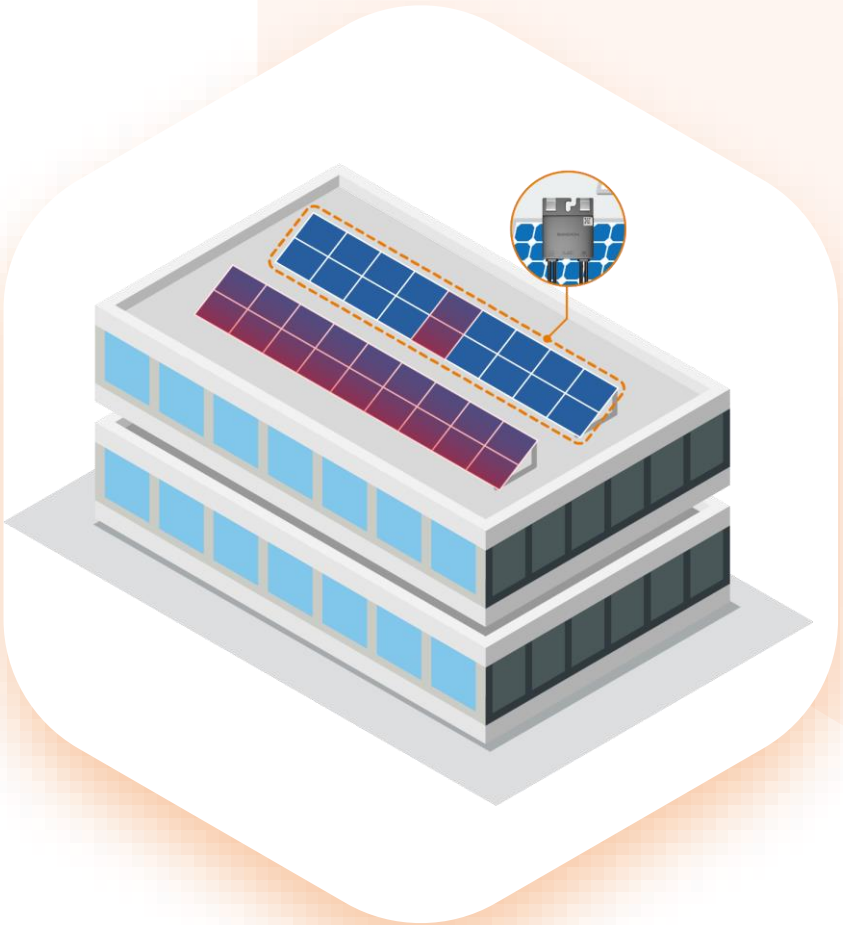
Directly locate faulty modules and increase O&M efficiency

One-tap scanning

Quickly generate Module Twin

- *quick access to iSolarCloud within 5s*
- *generate 1:1 module graphical layout*
- *color display, assist in locating faulty optimizers*





Module-level IV scan and diagnosis

Module-level IV curve scan and diagnosis

Directly locate faulty modules and identify 6 fault types, improving O&M efficiency

Module-level optimization for module independence

The faulty modules does not affect the operation of other modules, reducing the impact on the power generation.

START

THANK YOU

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