

The SUNGROW logo is displayed in a bold, orange, sans-serif font. The background of the entire slide is a white, 3D-rendered perspective of a series of nested hexagonal frames, creating a tunnel-like effect that recedes into the distance.

SUNGROW

Clean power for all

GEN3 SINGLE-PHASE SOLAR INVERTER

RE 100



2017

Public



SG2K-S
SG2K5-S
SG3K-S
SG3K-D
SG5K-D
SG8K-D



Gen 3

SG2.0RS-S
SG3.0RS
SG5.0RS
SG5.0RS ADA
SG8.0RS ADA
SG10RS ADA

2022



SG2.0RS-S
2kW Pac
1×MPPT



SG3.0RS
3kW Pac
2×MPPT



SG5.0RS
5kW Pac
2×MPPT

Mid-
Performance



SG5.0RS ADA
5kW Pac
3×MPPT
Smart Meter
Bottom Protection Cover



SG8.0RS ADA
8kW Pac
3×MPPT
Smart Meter
Bottom Protection Cover



SG10RS ADA
10kW Pac
3×MPPT
Smart Meter
Bottom Protection Cover

High
Performance





SG2.0RS-S 1 MPPTs, 1 PV Strings
Natural Cooling



SG3.0RS 2 MPPTs, 2 PV Strings
SG5.0RS 2 MPPTs, 2 PV Strings
Natural Cooling



SG5.0RS ADA 3 MPPTs, 3 PV Strings
SG8.0RS ADA 3 MPPTs, 3 PV Strings
SG10RS ADA 3 MPPTs, 3 PV Strings
Natural Cooling

SUNGROW



A SNAPSHOT OF NEW IMPROVEMENTS

1, The most compact one ever



30%
Lighter
6kg Weigh



* SG2.0RS-S and SG2K-S

2, Takes all 210mm/182mm panels

M6
166mm
370W/60 Cells
450W/72 Cells

M12
210mm
400W/60 Cells
500W/72 Cells

M10
182mm
400W/54 Cells
440W/60 Cells
500W/66 Cells
550W/72 Cells

LONGi 10.76A/11.52A
TrinaSolar 10.82A/11.37A
CanadianSolar 11.05A/11.59A

risen solar technology 11.64A/12.34A
TrinaSolar 11.70A/12.28A

Jinko Solar 13.01A/13.76A
LONGi 13.12A/13.88A



12.5A MPPT Current
20 A Short-circuit Current

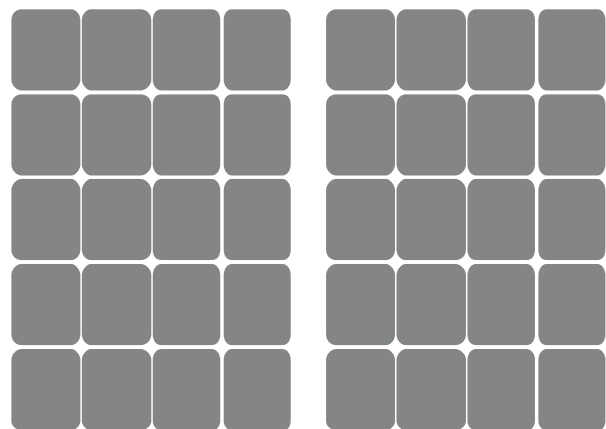
20A/1.25
=16A Isc
STANDARDS AUSTRALIA



16A MPPT Current
20A Short-circuit Current

* SG2.0RS-S and SG2K-S
Public

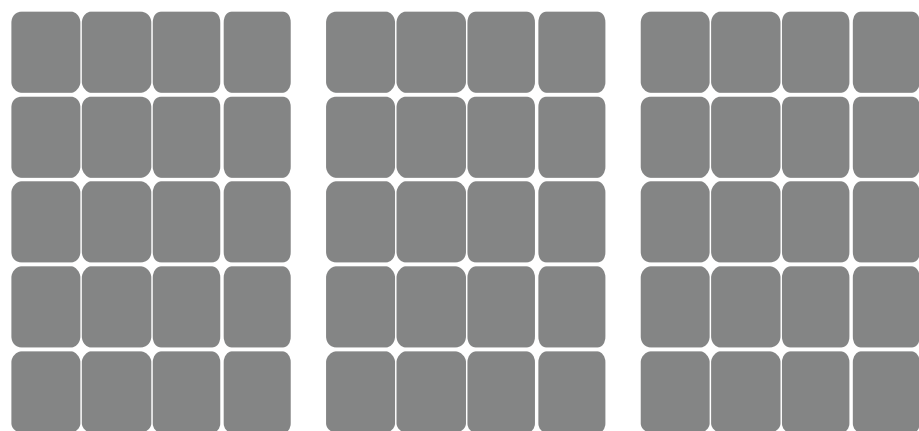
3, Wider Voltage Window



2 Panels Per String

40/50V

MPP Voltage Lower Limit/Startup Voltage



3 Panels Per String

90/120V

MPP Voltage Lower Limit/Startup Voltage



* Trina 400W

4, The Big Leap from LCD to LED Display

2,700 Nits
Brightness



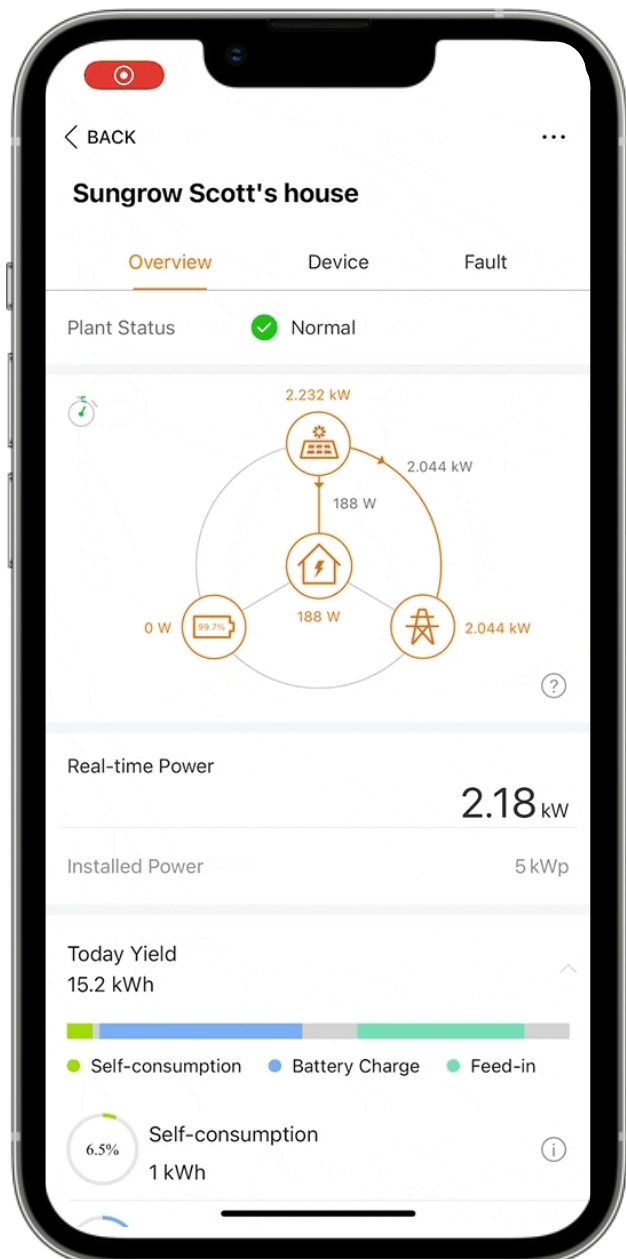
5, Only 29 dB Max Noise Level



6, Lower Surface Temperature



7, Live Monitoring Data



8, In the Box (ADA Version)

Inverter
Smart Meter
Protection Cover



Comparison Quick Look

Gen 3



10kW
Single-phase

3x
MPPT

16A/40V
Imp/MinVolt

29dB
Noise Level

LED
Display

LIVE
Telemetry

ADA Version
Smart Meter/Cover

NA

2x
MPPT

12.5A/90V
Imp/MinVolt

35dB
Noise Level

LCD
Display

5mins
Telemetry

NA

Gen 2





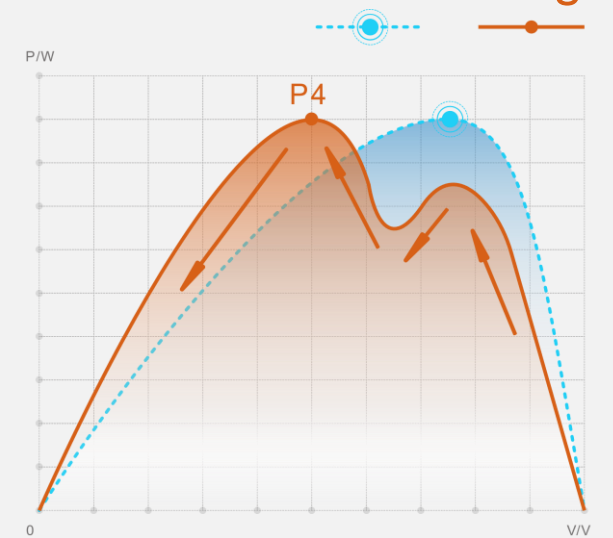
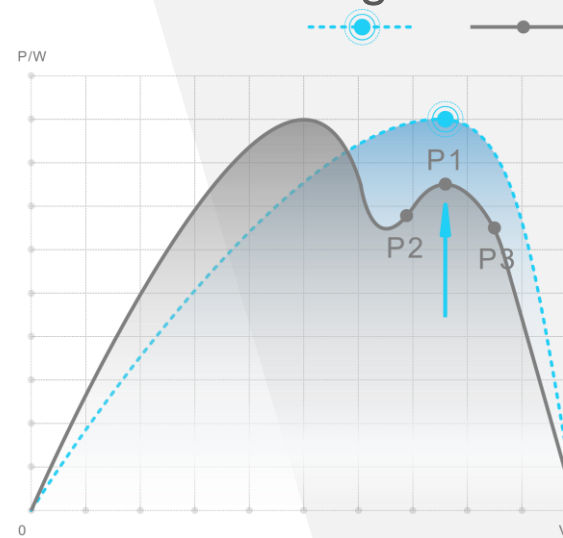
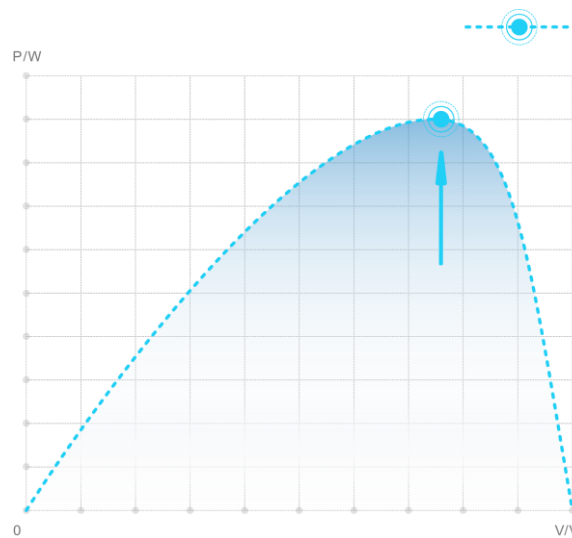
HIGHER PERFORMANCE

1, Maximize Shading Strings' Production



Standard Algorithm

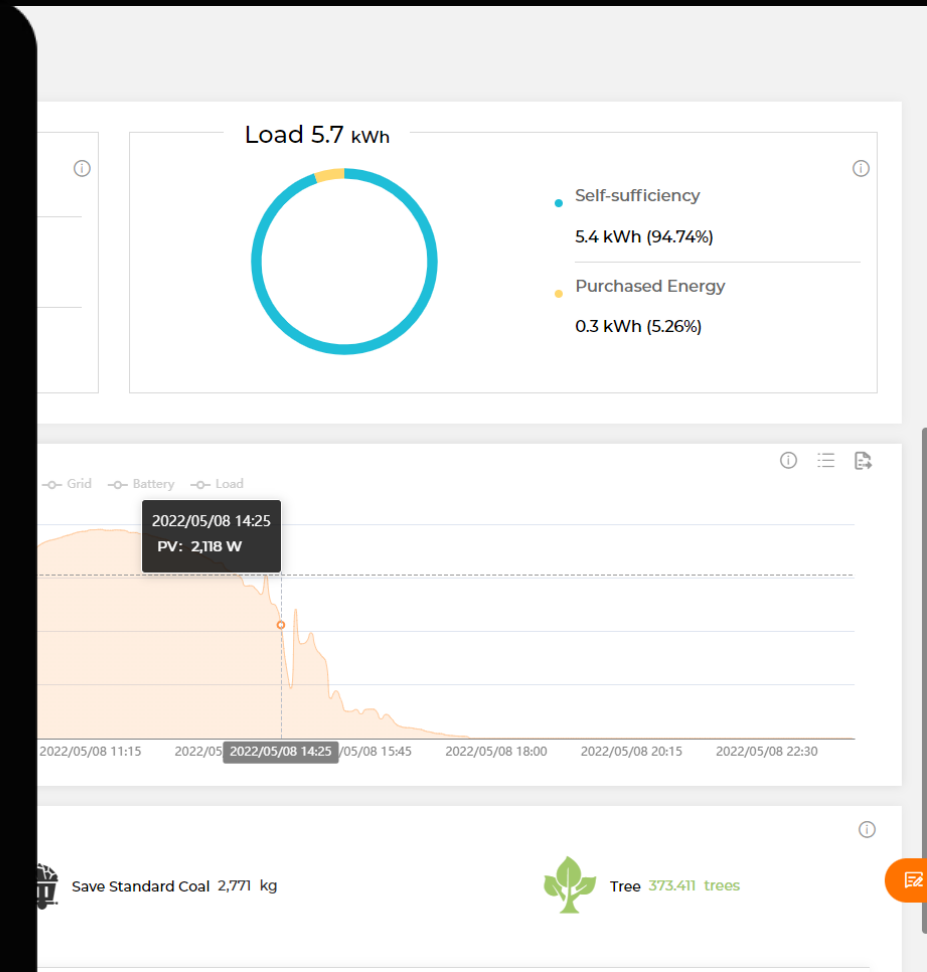
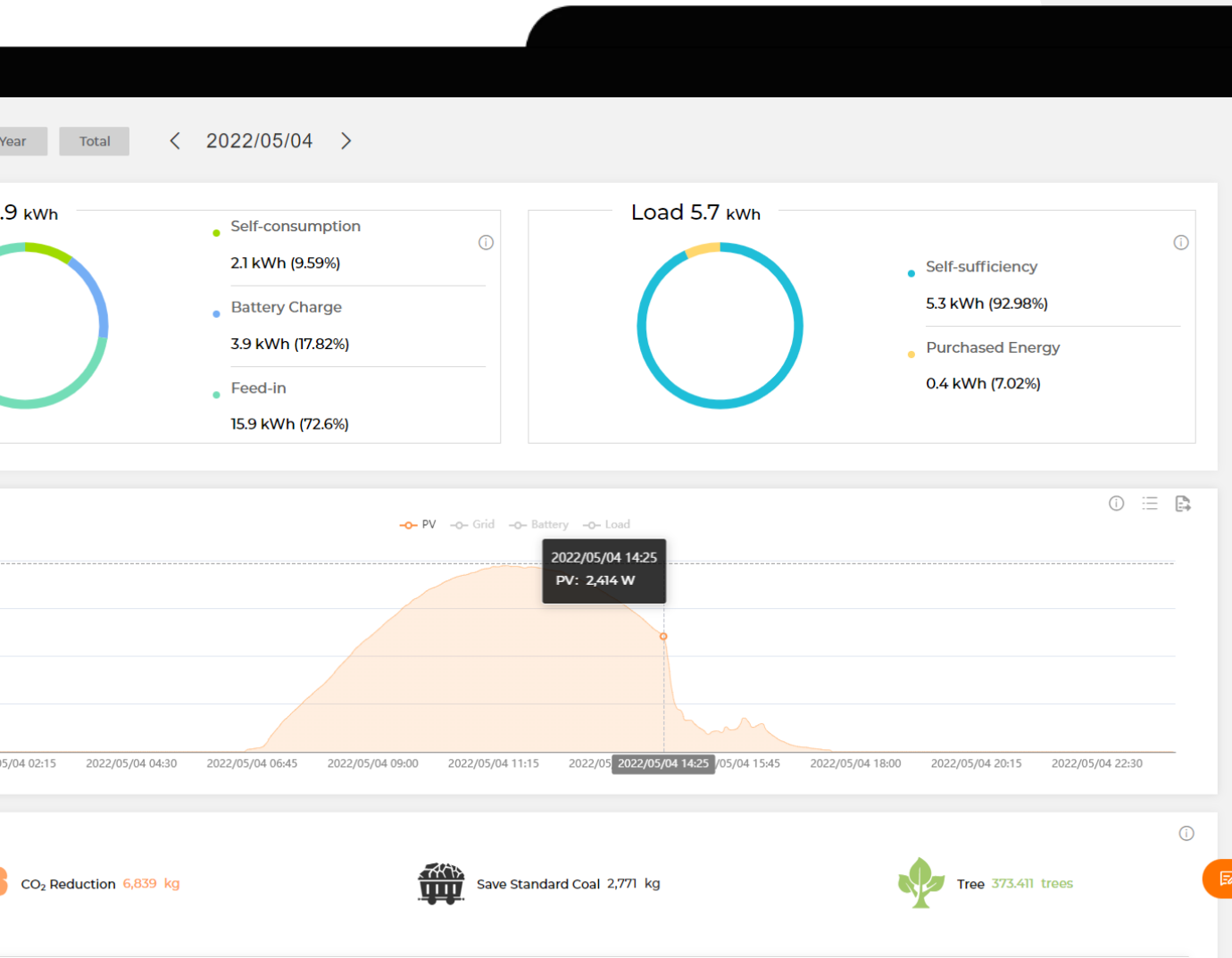
Global MPPT Scanning



Single Peak
Without Shading

Multiple Peaks
With Shading

1, Maximize Shading Strings' Production



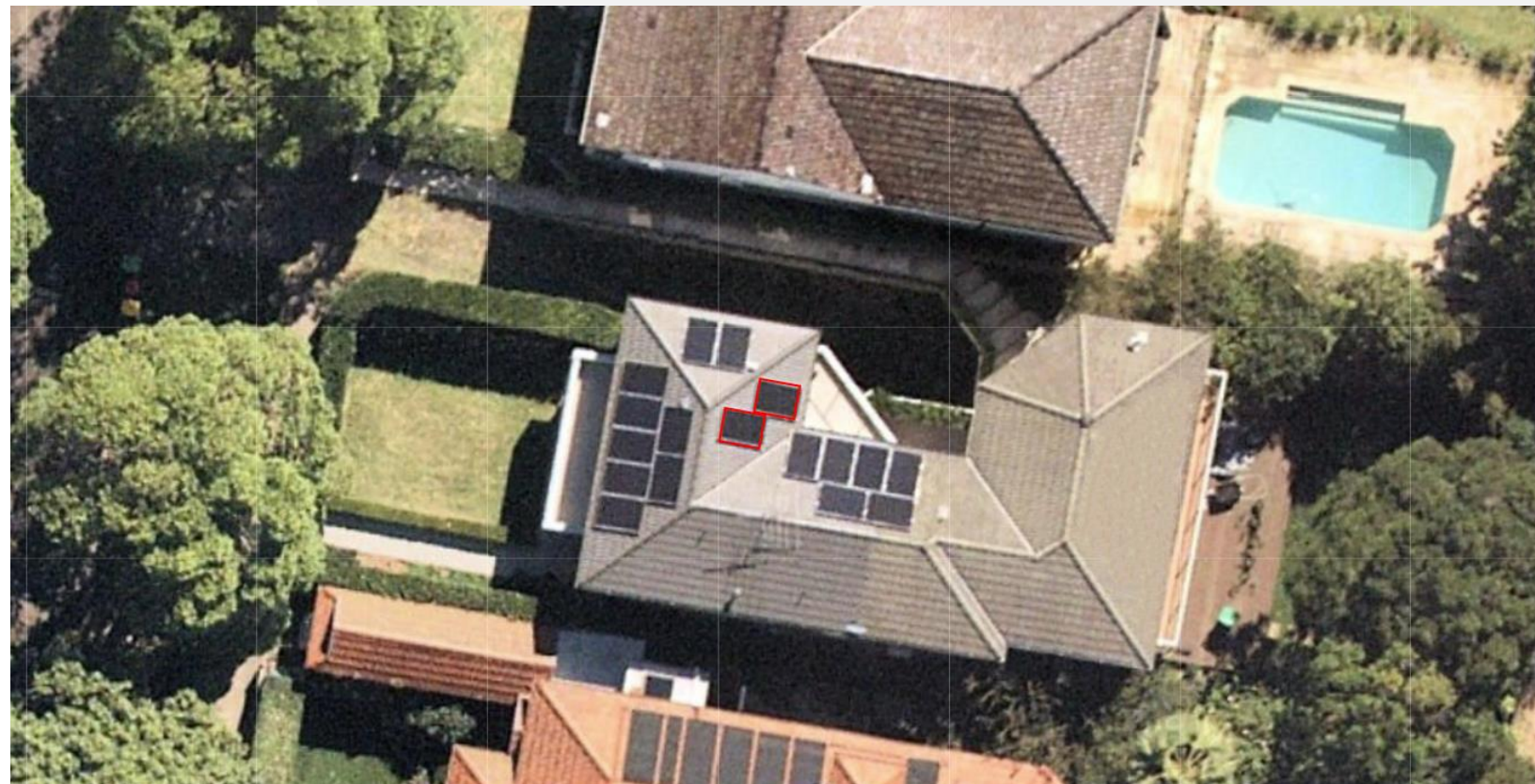
2, Avoid Solar Panels Mismatch

Gen 3
SG5.0RS ADA

MPPT 1: 7 Panels
MPPT 2: 8 Panels
MPPT 3: 2 Panels

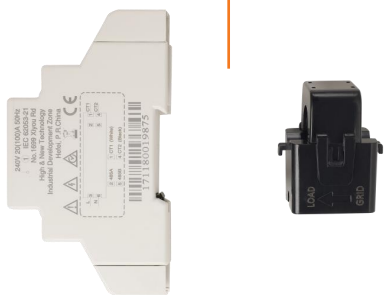
Gen 2
SG5K-D

MPPT 1: 7 Panels
MPPT 2: 8 Panels + 2 Panels(Tigo Optimizers)



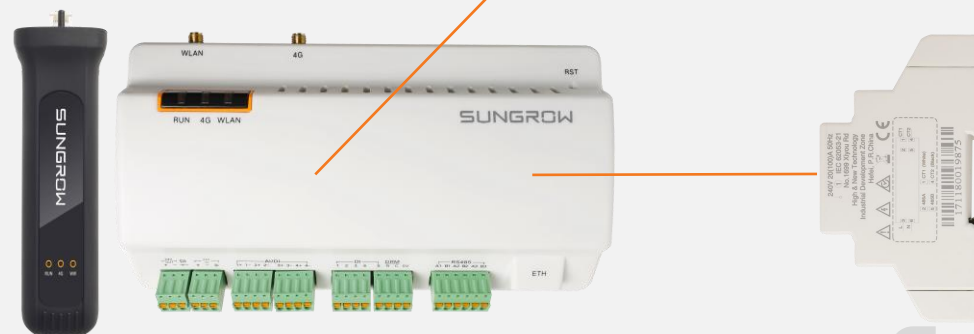
* Hyundai 390W

3, ZERO Export Control



Single Inverter

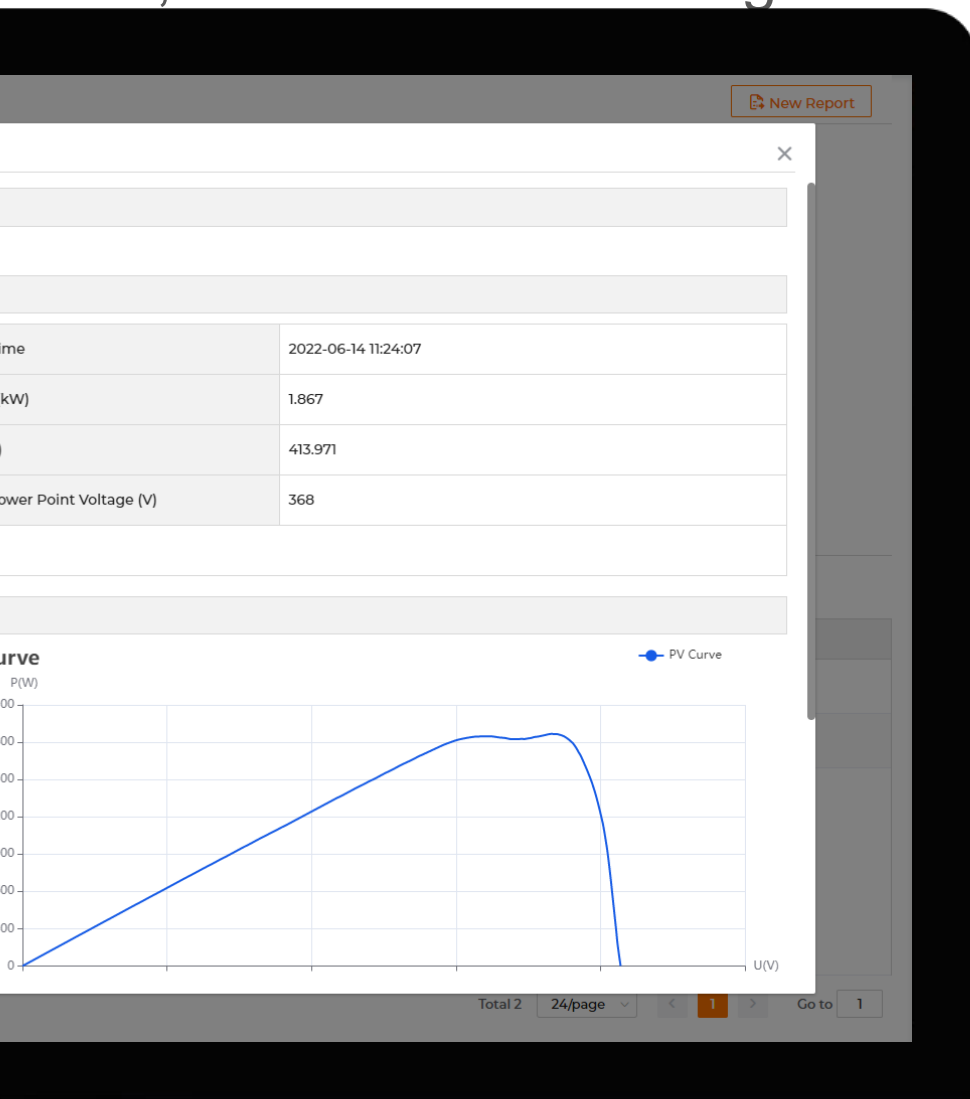
Multiple Inverters





SMART MAINTENANCE

1, Smart IV Curve Diagnosis



iSolarCloud
Sungrow Scott's house

Task Name : Sungrow Scott's house Inverter Scan 2022-06-14 13:23:45

Diagnosis Results : [Number of scan strings: 2, Number of abnormal strings: 1]

- Normal
- String open circuit voltage is low

String open circuit voltage is low. Number of strings: 1 (50%)

IV Curve Diagnosis Results IV Curve

SH5.0RS Hybrid Inverter Diagnosis Results

No.	Inverter	Photovoltaic String	Diagnosis Results
1	SH5.0RS Hybrid Inverter	No.1String	String open circuit voltage is low
2	SH5.0RS Hybrid Inverter	No.2String	Normal

2, Adjust Parameters/ Update Firmware on the Portal



3, Arc Fault Detection

	Sungrow algorithm	Other algorithm
DC Current Spiking Sampling	✓	✓
Arc Pattern Dynamic Analysis	✓	Level-1 detection determination ✓
Fault Flag Set on to DSP	✓	✓
Arc Pattern Database Checking	✓	Level-2 detection determination Level-1 closed-loop determination ✗
History Fault Checking	✓	Level-3 detection determination Level-2 closed-loop determination ✗
Inverter shutdown	✓	✓



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