



Solis C&I Energy Storage Inverters

More Power. More Compatibility.

NEW S6-EH3P(29.9-50)K-H





1

Product Overview

General Introduction



S6-EH3P(29.9-50)K-H

29.9K-H / 30K-H / 30K-H-LV / 40K-H / 50K-H

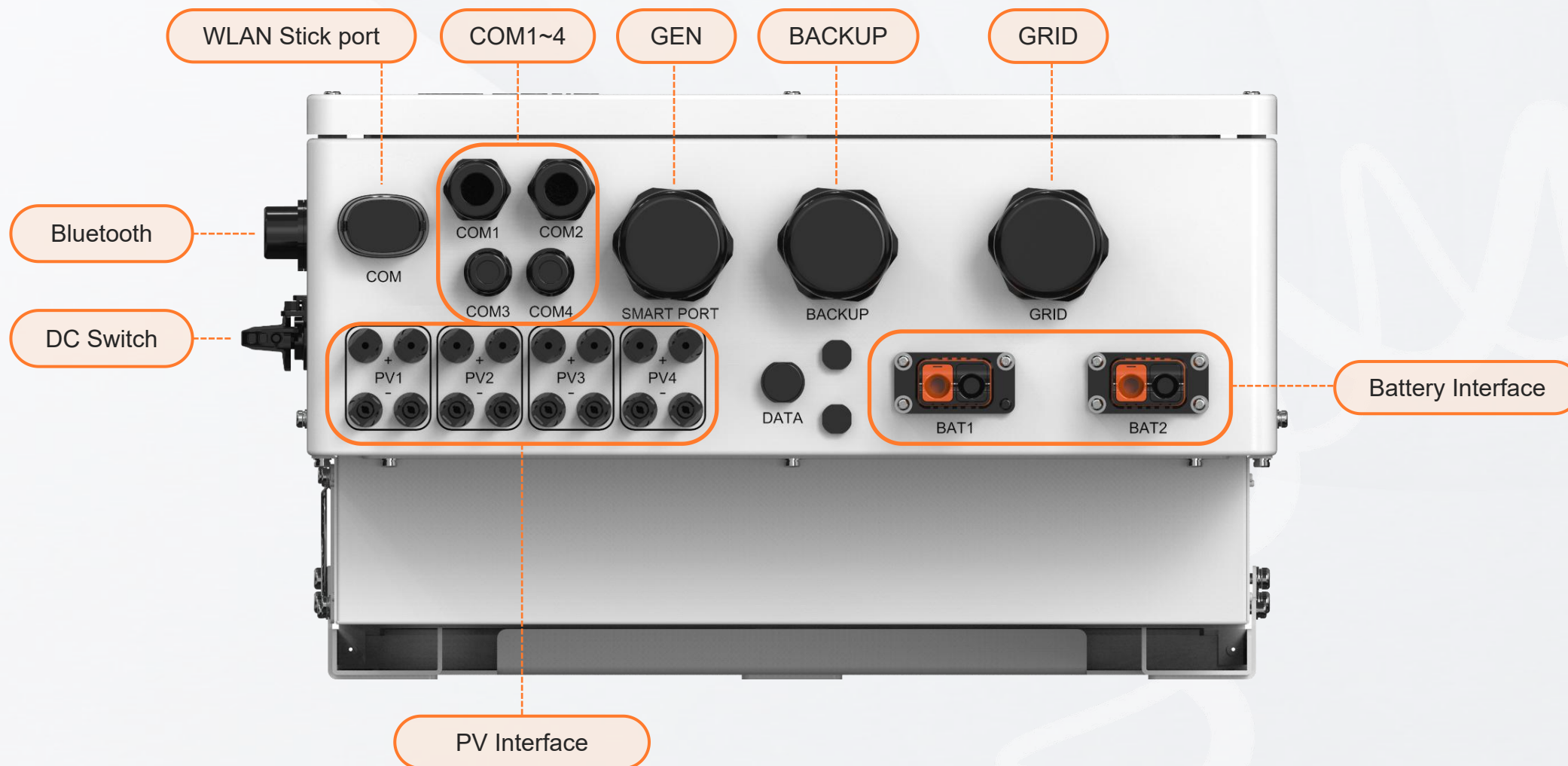
Ingress Protection: IP66

Anticorrosion Grade: C5





Bottom & Communication Interface





Technical Data



Models	30K-LV	29.9K	30K	40K	50K
Input DC (PV side)					
Recommended max. PV array size	60 kW	59.8 kW	60 kW	80 kW	100 kW
Max. usable PV input power	60 kW	59.8 kW	60 kW	80 kW	96 kW
Max. input voltage			1000 V		
Rated voltage			600 V		
Start-up voltage			180 V		
MPPT voltage range			150-850 V		
Max. input current		3*40 A		4*40 A	
Max. short circuit current		3*60 A		4*60 A	
MPPT number/Max. input strings number		3/6		4/8	
Battery					
Battery type			Li-ion		
Battery voltage range			150-800 V		
Max. charge / discharge power	33 kW	32.1 kW	33 kW	44 kW	55 kW
Max. charge / discharge current			70 A*2 ⁽¹⁾		
No. of battery inputs			2		
Max. charge / discharge power of each input	33 kW	32.1 kW	33 kW	40 kW	40 kW
Communication			CAN/RS485		
Output AC (Grid side)					
Rated output power	30 kW	29.9 kW	30 kW	40 kW	50 kW
Max. apparent output power	30 kVA	29.9 kVA	30 kVA	40 kVA	50 kVA
Rated grid voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V		3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V		
Rated grid frequency			50 Hz / 60 Hz		
Rated grid output current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Max. output current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Power factor			>0.99 (0.8 leading - 0.8 lagging)		
THDi			< 3%		
Input AC (Grid side)					
Max. AC passthrough current	152 A / 152 A	90.8 A / 86.4 A	91.2 A / 86.6 A	121.6 A / 115.4 A	152 A / 144.4 A
Rated input voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V		3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V		
Rated input frequency			50 Hz / 60 Hz		
Input Generator					
Max. input power	30 kW	29.9 kW	30 kW	40 kW	50 kW
Rated input current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Rated input voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V		3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V		
Rated input frequency			50 Hz / 60 Hz		



Technical Data



Models	30K-LV	29.9K	30K	40K	50K
Output AC (Back-up)					
Rated output power	30 kW	29.9 kW	30 kW	40 kW	50 kW
Max. apparent output power			1.6 times of rated power, 2 s		
Back-up switch time			< 10 ms		
Rated output voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V		3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V		
Rated frequency			50 Hz / 60 Hz		
Rated output current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
THDv (@linear load)			< 2%		
Efficiency					
Max. efficiency			97.8%		
EU efficiency			97.4%		
BAT charged by PV Max. efficiency			98.5%		
BAT charged/discharged to AC Max. efficiency			97.5%		
Protection					
Anti-islanding protection			Yes		
Output over current protection			Yes		
Short circuit protection			Yes		
Integrated DC switch			Yes		
DC reverse-polarity protection			Yes		
Surge protection			DC Type II / AC Type II		
Integrated AFCI (DC arc-fault circuit protection)			Yes ⁽²⁾		
General Data					
Dimensions (W*H*D)			530*880*290 mm		
Weight			73 kg		
Topology			Transformerless		
Self-consumption (night)			<25 W		
Operating ambient temperature range			-25 ~ +60°C		
Relative humidity			0-95%		
Ingress protection			IP66		
Cooling concept			Intelligent redundant fan-cooling		
Max. operation altitude			4000 m		
Grid connection standard			G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1/EN 50549-10, VDE 0126 / UTE C 15/VFR:2019, NTS 631/RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA,PORTARIA N° 140, DE 21 DE MARÇO DE 2022		
Safety/EMC standard			IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011		
Features					
PV connection			MC4 Quick connection plug		
Battery connection			Terminal connector		
AC connection			Terminal Block		
Display			LCD + Bluetooth + APP		
Communication			CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN		



Work Modes



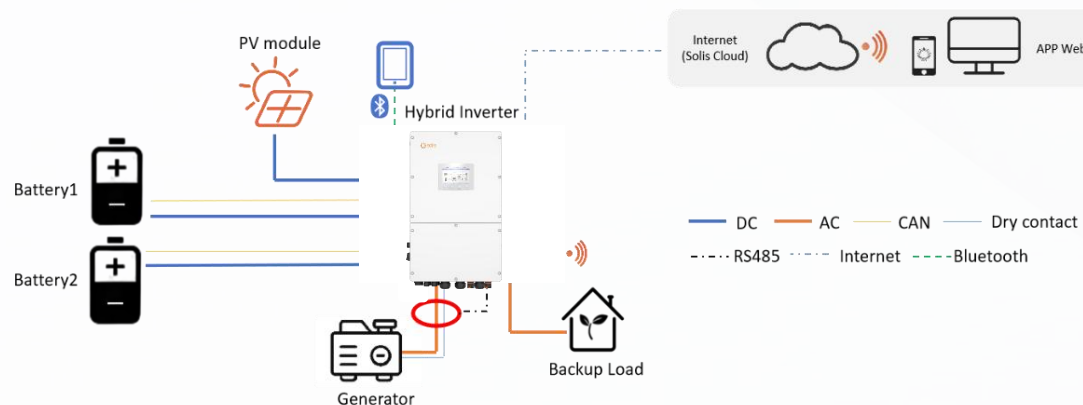
	Working mode	Working logic	Usage
	Self of use	Load priority: load>battery>grid Power supply priority: PV>battery>grid>DG Support TOU setting in this mode.	This mode applies the area that has low feed-in tariff and high energy price.
	Feed in priority	Load priority : load>grid>battery Power supply priority: PV>battery>grid>DG Support TOU setting in this mode.	This mode applies the area that has high feed-in tariff.
	Off-grid	Load priority : load>battery Power supply priority: PV>battery>DG When a power outage is detected, the system will automatically enter the off-grid mode, supplying only the backup load.	This mode applies the area not covered by the grid or the system is not connected to the grid.
	Peak-shaving	Load priority: load>battery>grid Power supply priority: PV>grid>battery>DG Support TOU setting in this mode. In this mode , on the premise that the power supplied by the grid does not exceed the set value(P_max), the system will be trying to charge the battery to Peak SOC. If $(P_{\text{discharge}}+P_{\text{max}}+PV < P_{\text{load}})$, it will exceed the set value(P_max) to support the load.	This mode applies the area where the electricity tariff is calculated according to the maximum power per unit time.



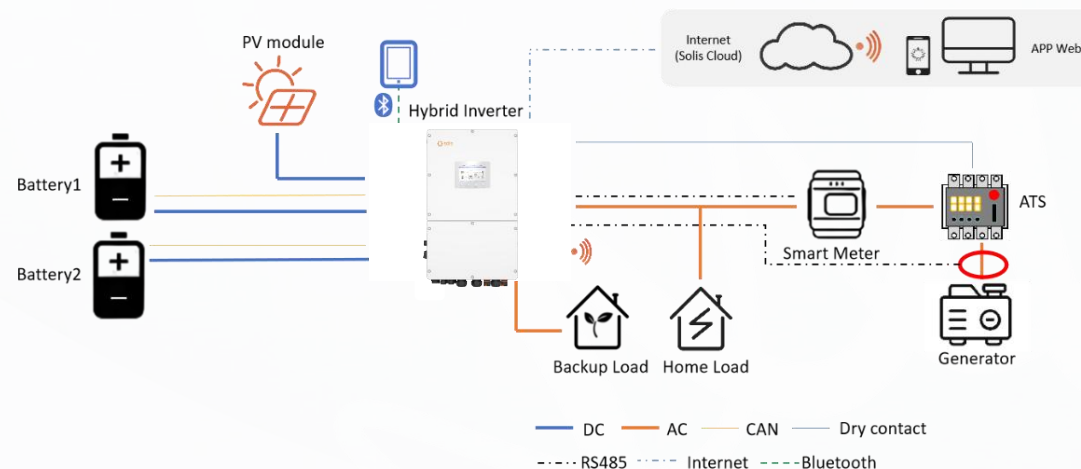
System with Generator



Generator on Gen port side



Generator on Grid side



NOTE:

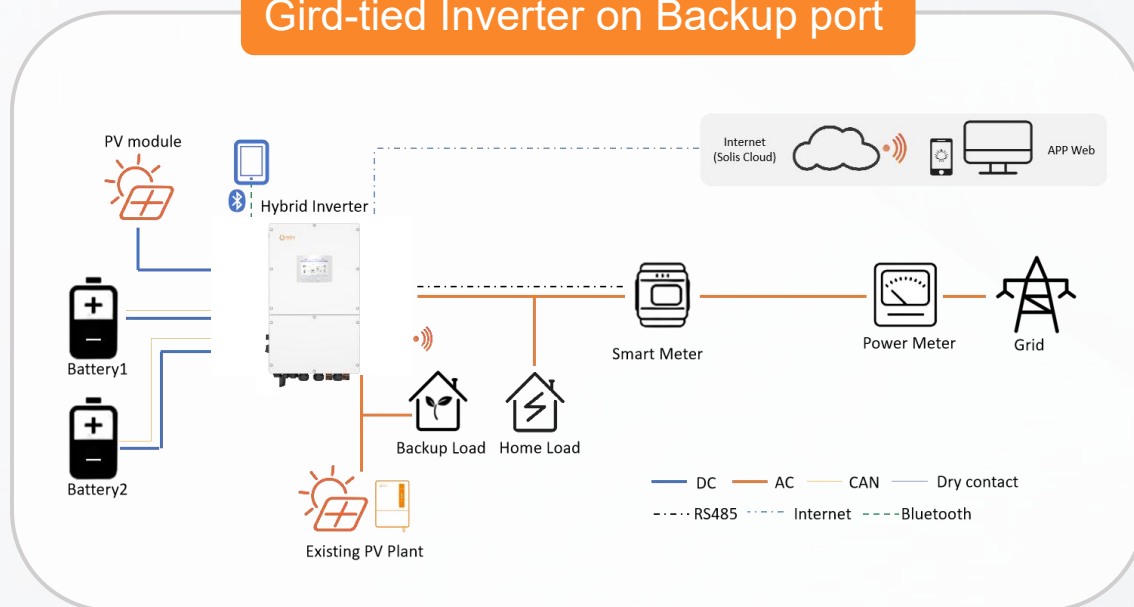
- In single system, Diesel Generator can be connected via both AC-Gen port and ATS. If via AC-Gen port, it will only supply power to the Backup load; if it is necessary to supply power to the grid side, it is recommended that the generator be connected through ATS;
- In parallel-system scenarios, connecting DG via ATS is recommended;
- When the generator is connected to the system, it is necessary to correctly select the location of the generator on the APP to avoid system failure or generator damage.



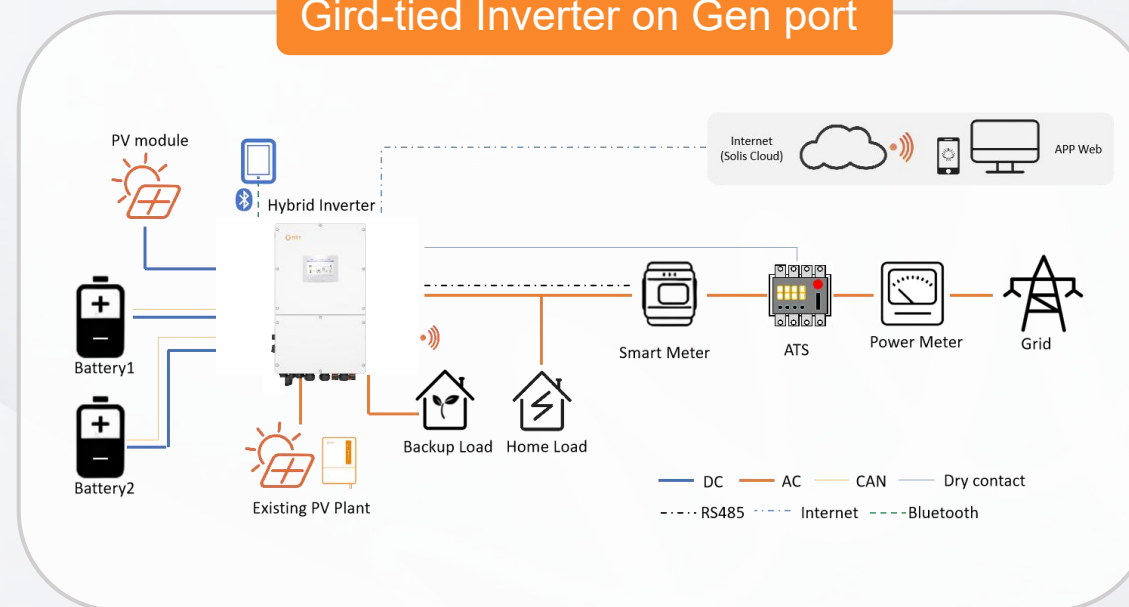
System with Grid-tied Inverter



Grid-tied Inverter on Backup port



Grid-tied Inverter on Gen port

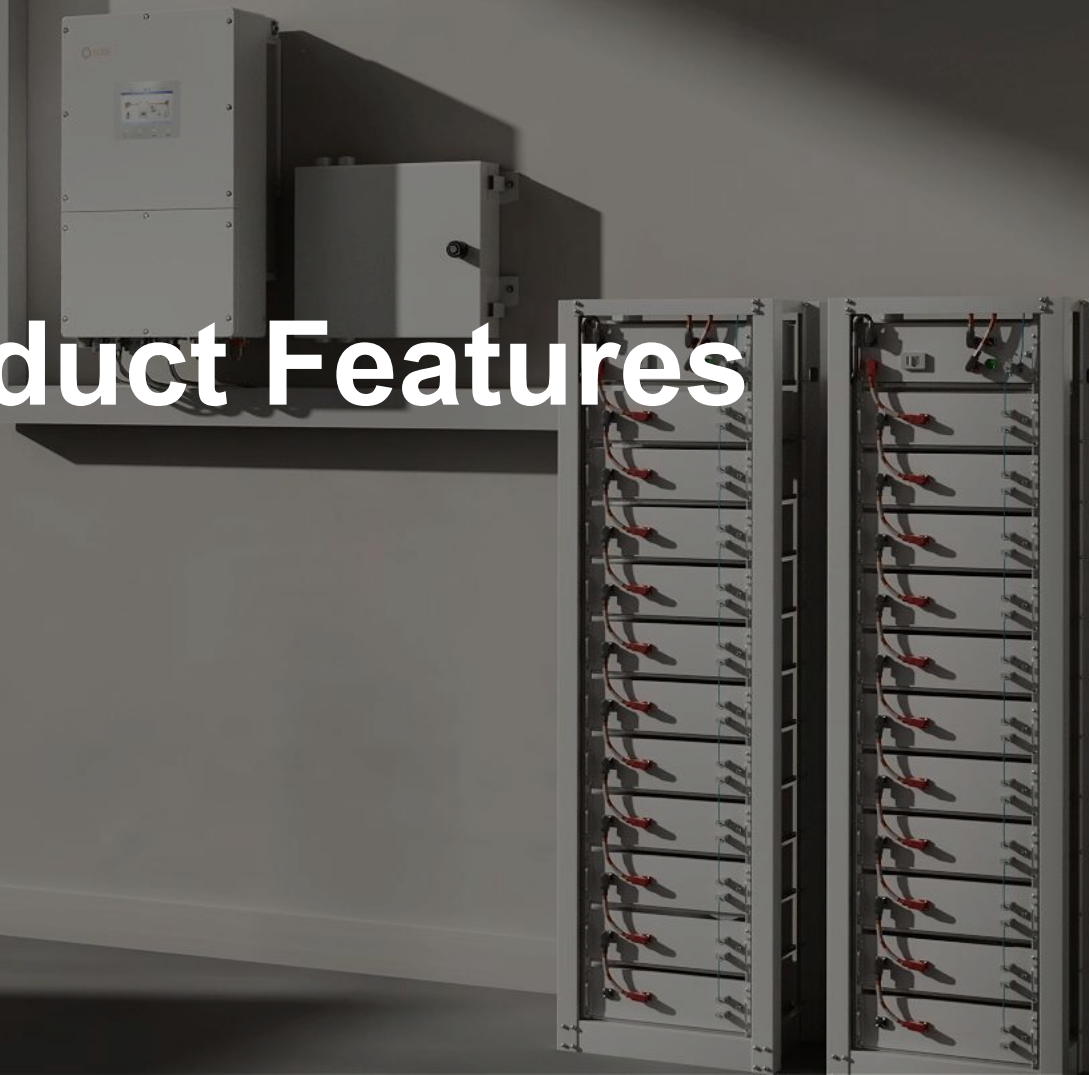


NOTE:

- Grid-tied inverter can be connected via AC-Gen port and AC-Backup port.
- With existing PV Plant connected to the system, it is recommended that : Grid-tied inverter power < rated AC power of S6 inverter ;
- In on-grid scenario, when the third-party grid-connected inverter is connected, the system cannot control the output power of the third-party grid-tied inverter, so Feed-in limitation cannot be realized ;
- When connected in off-grid scenario, the third-party grid-tied inverter needs to set the correct grid code, and has the function of over-frequency load shedding & under-frequency load rising, so that the system can adjust the frequency to control the output power of the grid-tied inverter.
- The solis grid-connected inverter can be connected with Hybrid inverter in parallel . In order to realize Feed-in limitation, it is necessary to add EPM or S3-Logger devices.
- When the system is connected to the generator, it cannot be connected to the grid-tied inverter, because of a risk of damaging the generator.

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Product Features





1

4 MPPTs

8 strings at 20A, and up to 96kW usable PV input

2

140A / 70+70A

Maximum charge and discharge current

3

Compatible with mainstream global battery brands

4

Two types of generator connections

5

Cloud monitoring
for clear understanding of system status

6

Supports peak control
in both 'self-use' and 'generator' modes

7

Connects up to 6 units in parallel
on grid or off grid

8

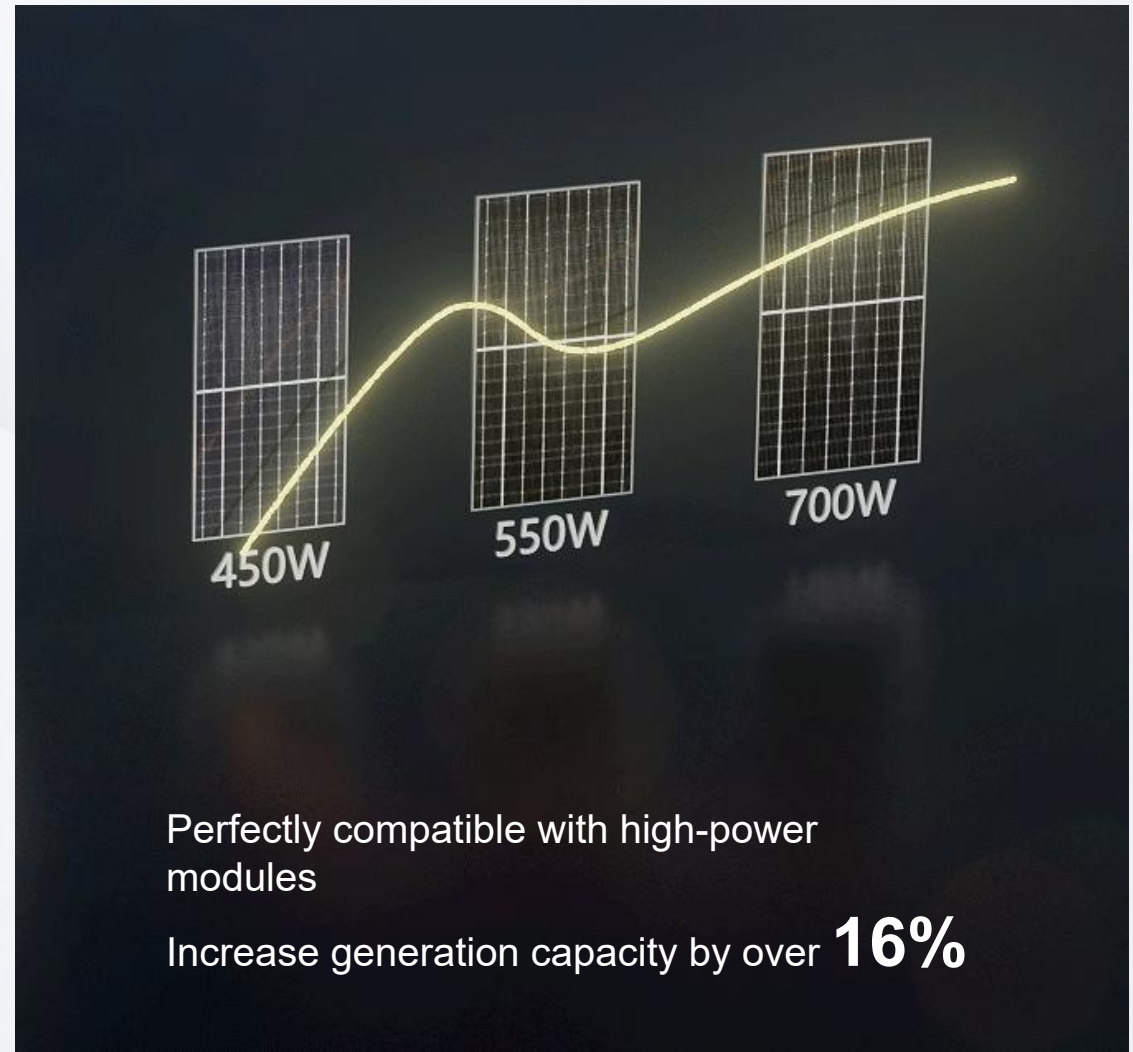
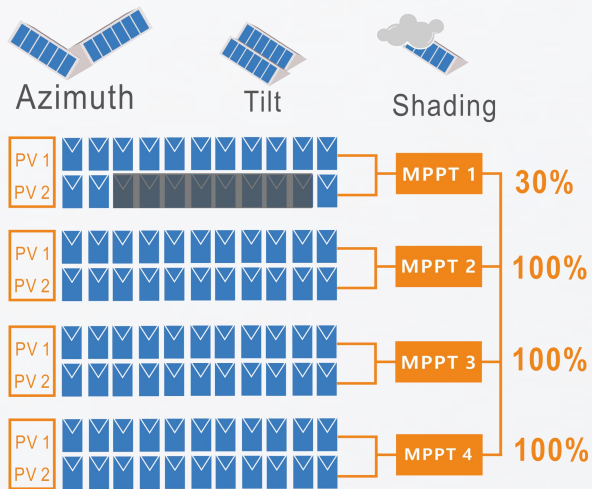
160% 2s rated power output
Short-term peak support





4 MPPT inputs

Up to **20A** of single-string current per MPPT





Compatible with **high-current** charge and discharge batteries

Maximum charge and discharge current of

140_A / 70+70_A



Charges **1** kWh in **60** seconds



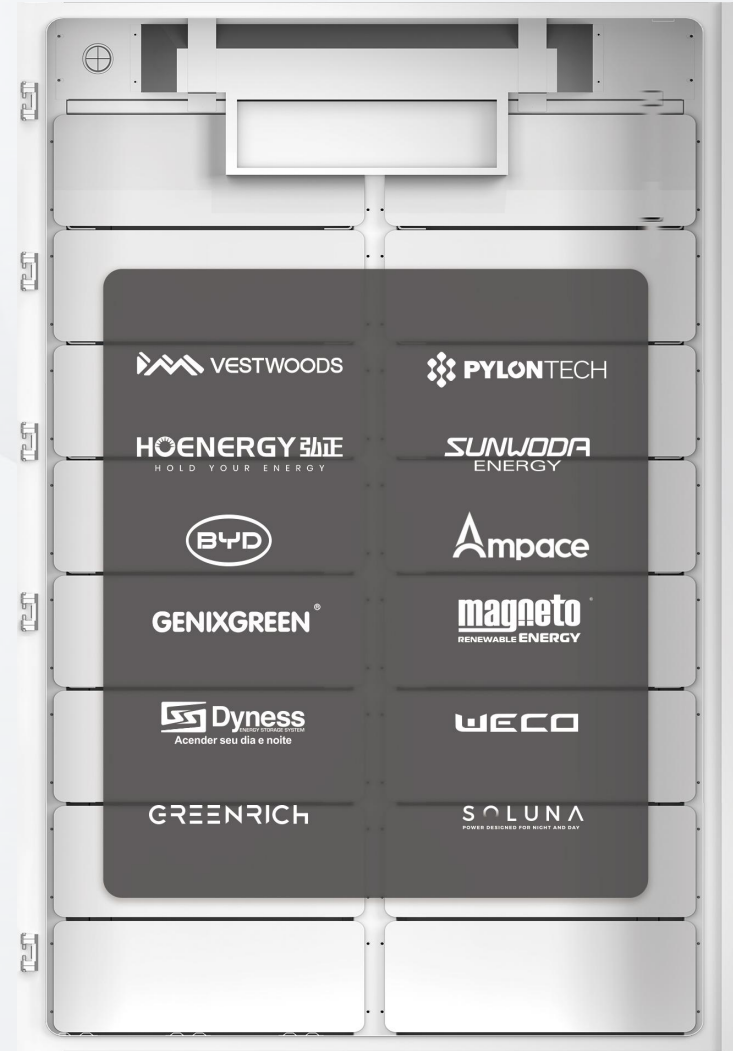


Compatible with

mainstream global

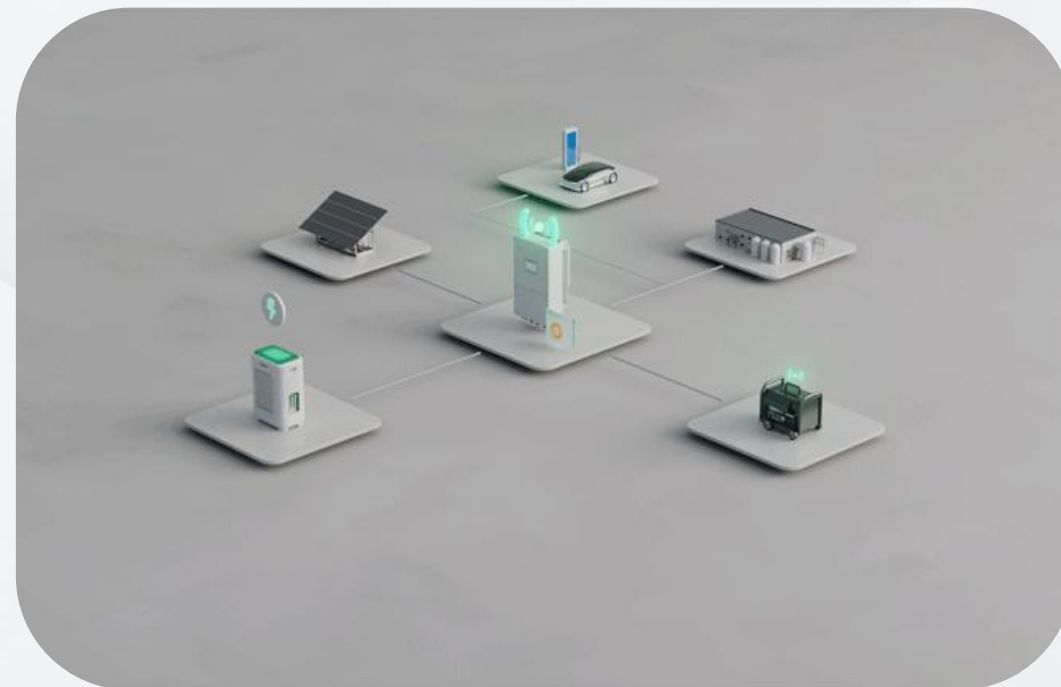
battery brands

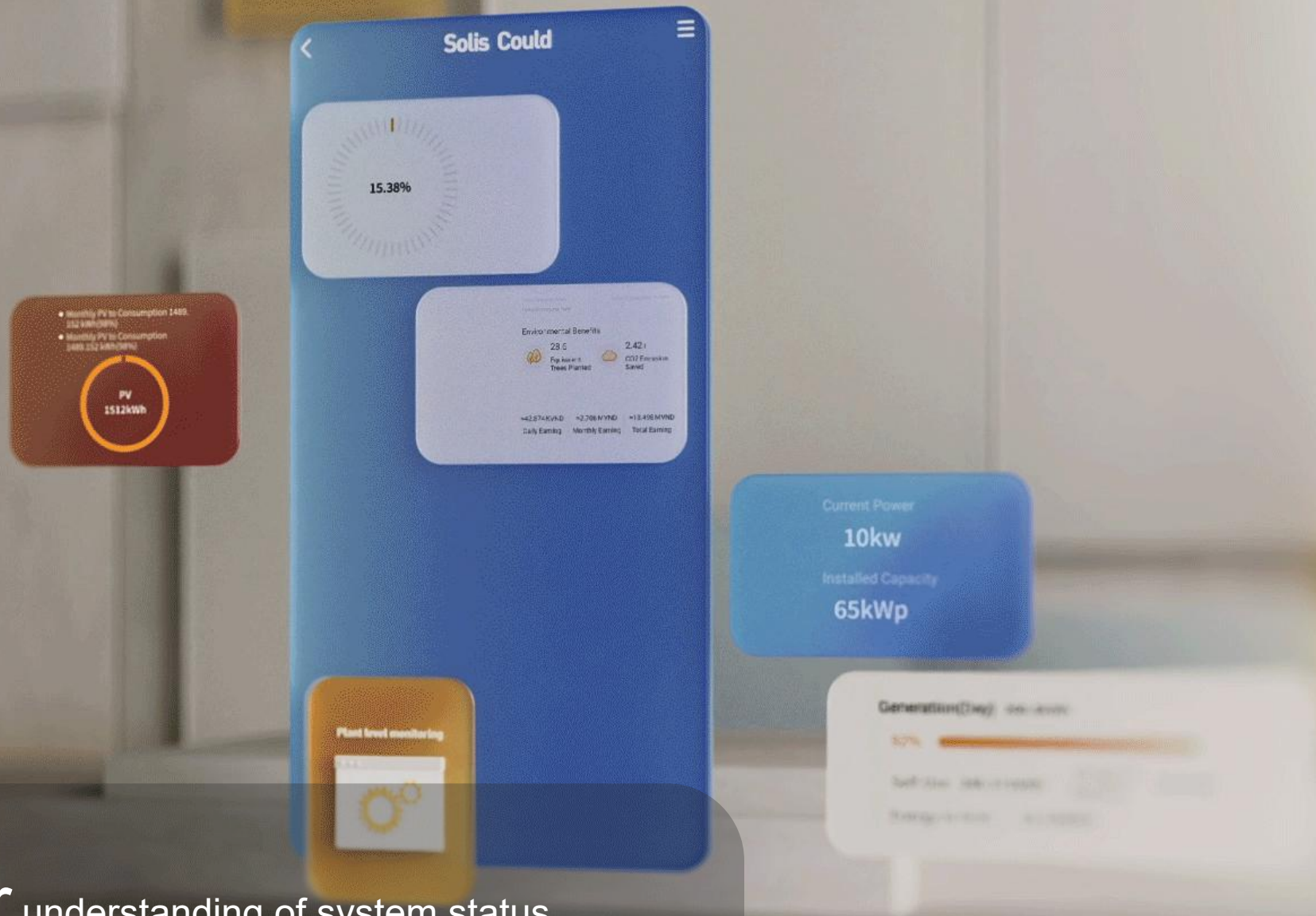
Enhanced battery protection and
operation functions, prolongs battery life





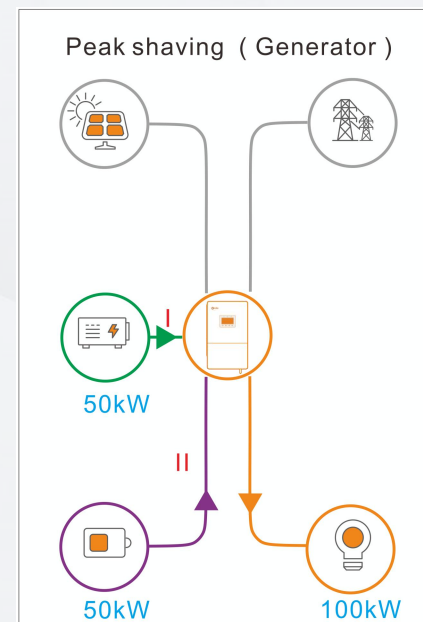
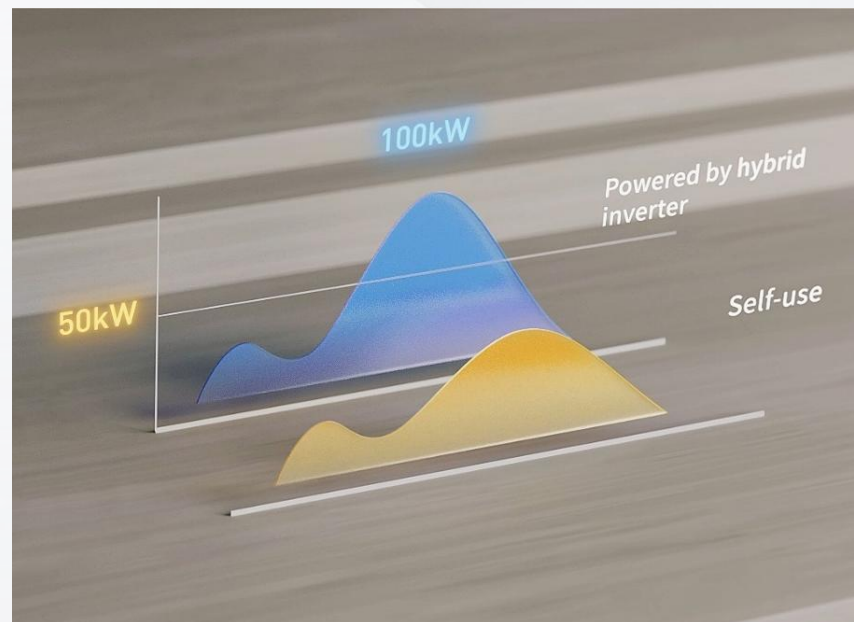
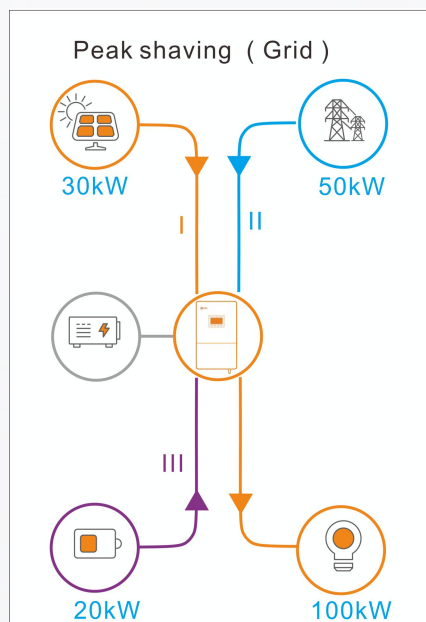
Supports **two types** of generator connections



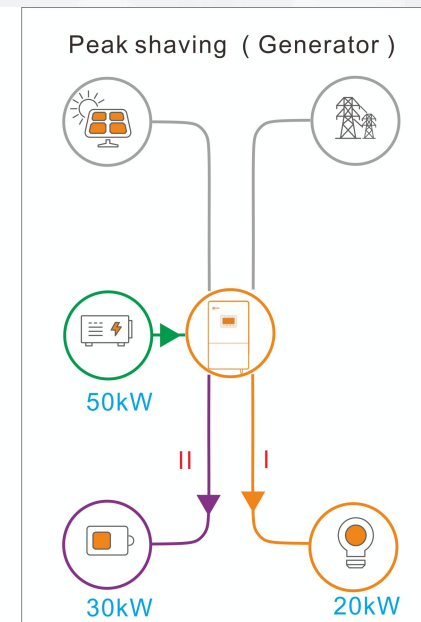


Cloud monitoring for **clear** understanding of system status

Supports **peak control** in both 'self-use' and 'generator' modes



Loads > generator,
Generator + battery supplies
power to the loads



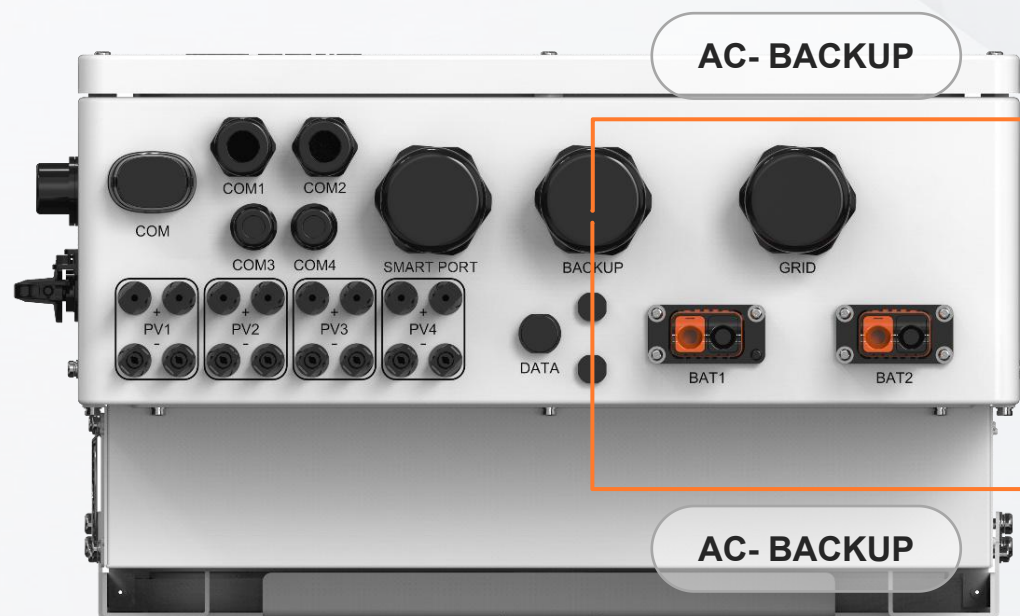
Loads < generator,
The generator charges the
battery



Connects up to **6** units in parallel; on grid or off grid

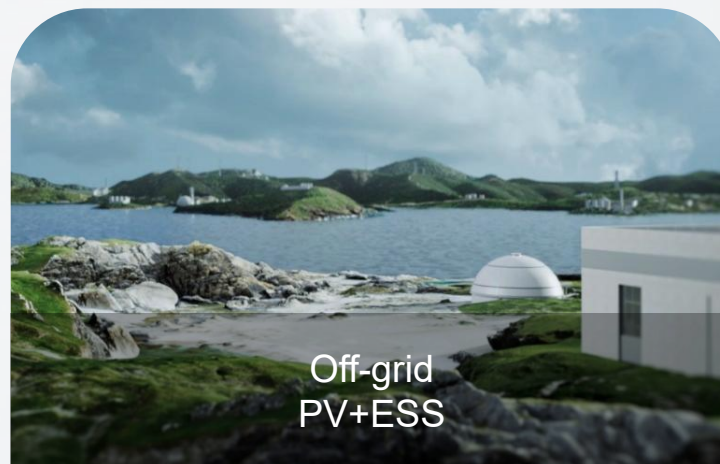


Short-term peak support of **160%** 2s rated power output

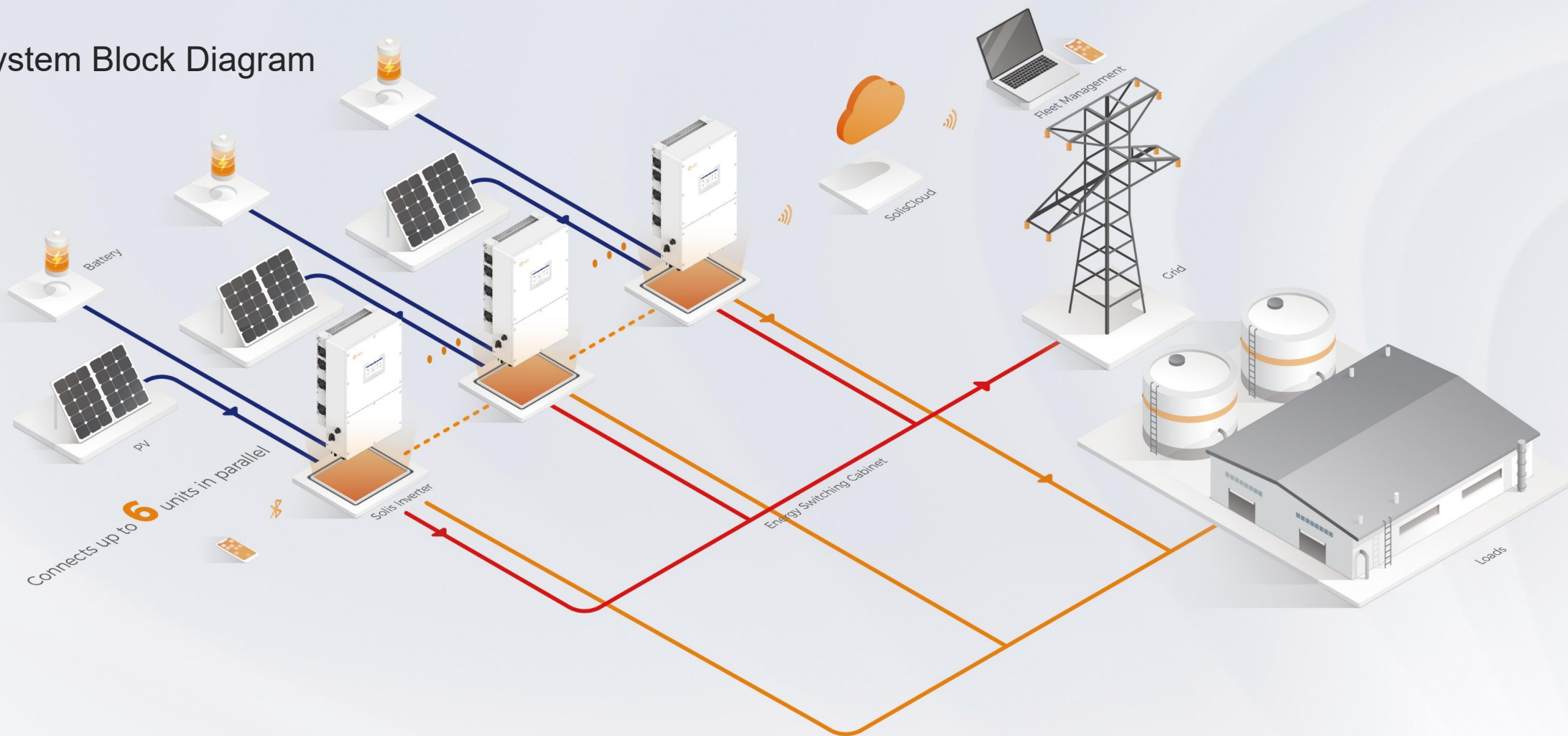




Suitable for to public buildings/hospitals/factories/islands...



System Block Diagram



DC — AC — Internet - - - - - Communication — Communication Cable - - - - -



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About Solis



Solis History



Solis: The World's **3rd** Largest PV Inverter Manufacturer

2005

2005

Ginlong Technologies was founded by **Yiming Wang**

2006-2010

2006

First Asian inverter company obtained **G83** and entered the UK market

2009

First Asian inverter company obtained **UL1741** certification and entered the US market

2010

Obtained **AS4777 / AS3100** certification and entered the Australia market

2011-2016

2016

4th Generation inverters hit the market

First ranked among the **top PV brands** by EUPD research

2017-2021

2019

First ranked among the **Top 10** Inverter shipments globally

Ginlong (Solis) listed as a **public company** (Stock Code: 300763.SZ)

Ginlong (Solis)
Ranked 3rd among Asian Brands by BloombergNEF Bankability

2021

First became world **3rd largest** PV inverter manufacturer

Ranked among the **top 500** global new energy companies

2022-2023

2022

World **3rd largest** PV inverter manufacturer

National laboratory qualification CNAS Certification

6th Generation inverters hit the market

2023

Forbes China's **Top 50** Innovative Enterprises

2024

Ranks among the **top PV brands** by EUPD research for **9 consecutive years** (2016-2024)



锦浪科技股份有限公司
GINLONG TECHNOLOGIES CO., LTD.



Global Reach, Local Expertise



HQ

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Service Centers

In-country inverter experts committed to your success:

Hassle-free service delivered by local technicians available by phone and on-line.

Solis after-sales support defines service excellence.

Spain, Portugal, UK, Ireland, France,
Switzerland, Austria, Netherlands,
Germany, Italy, Sweden, Poland,
Lithuania, Romania, Greece, Turkey

Canada, USA,
Mexico, Brazil, Chile

China, Korea, Pakistan, India,
Myanmar, Thailand, Vietnam,
Philippines, Malaysia, Singapore,
Indonesia, Sri Lanka

South Africa, Australia

Solis: The World's 3rd Largest PV Inverter Manufacturer



Solis After-sales Services





Mission

Developing Technology to Power the World with Clean Energy

Vision

Product Centric
Customer Focused

Values

We will meet the needs of customers around the world with our innovative products and contribute to prosperous sustainable living.





Thank you!

Solis: The World's 3rd Largest PV Inverter Manufacturer