



Global string inverter manufacturer

Bankable. Reliable. Local.

w: solisinverters.com

Made by Ginlong Technologies | Stock Code: 300763.SZ

Solis Mission

Developing technology to power the world with clean energy.

Corporate Social Responsibility

>> The team at our headquarters and manufacturing base in China recently received the “National Green Factory” award by the regional Zhejiang Provincial Economic and Information Commission for the company's positive impact on the local community, environment and economy. Our efforts to uphold our Corporate Social Responsibility policy incorporates activities in areas such as product design, supplier management, waste management, energy consumption, infrastructure and public welfare.

Product Design

Attention to detail during the design process has led to a number of technical changes to reduce the weight and quantity of materials required per product, without compromising quality. We always adopt an ecological design approach, reducing and replacing harmful substances with more environmentally friendly materials – a process which is fully documented and certified.

Supply Chain Management

Every Solis supplier signs and commits to an environmental protection agreement which ensures all products meet the requirements of the RoHS directive and do not violate any environmental protection conditions.

Waste

All industrial solid waste is recycled and reused except domestic waste, which is pre-treated by an oil separator (for kitchen waste) and then treated by our septic tank to meet the level 3 standard of Comprehensive Sewage Discharge Standard (GB8978-1996) before entering the Xiangshan County sewage treatment plant.

Solis has a dedicated warehouse for recycling raw materials and products, encouraging third party suppliers to repurchase materials for reuse. The recycling rate of our products is calculated in accordance with GB/T20862.

Energy Consumption

Solis employs a dedicated in-house energy management team which is responsible for energy conservation and reducing the consumption of energy during the production process. In 2014, we built photovoltaic power stations and an intelligent micro-grid to power the factory. The current grounds and parking lot contain over 2,000 solar modules with an installed capacity of 0.542MWp and an annual capacity of 542,000 kWh.

In 2018, Solis' annual electricity consumption from the installed solar system was 3.2 million kilowatt hours, accounting for 16.8% of the factory total, and exceeding our target of 10%.

Carbon Footprint

In 2021, Solis global shipments reached over 670,000 units of inverters totalling 14.4GW. This equates to connecting more than 17 billion kWh of new green electricity and reducing over 17 million tons of CO₂ emissions – the equivalent of planting 9 million trees.

Our mission to reduce the world's carbon footprint is an ongoing challenge, and we are making good progress.

Public Welfare

Solis encourages all employees to participate in a variety of public welfare activities, led by our senior management team who have a strong sense of social responsibility. Solis is developing and growing rapidly, and we are committed to giving back to society, providing educational assistance, alleviating poverty and contributing to social emergency funds.

At the start of 2020, the company donated 1 million Yuan to first-line medical workers from The Designated Ningbo Hospital to aid COVID-19 diagnosis and treatment. A total of 10,000 masks were donated to the People's government of Xiangshan County to help provide protection and prevent the spread of the virus. A total of 2.6 million Yuan was donated to charitable causes in 2020.



Corporate Buildings & Infrastructure

Solis constructs its corporate buildings and factories in accordance with the relevant national standards and develops detailed plans for environmental protection, safety, energy conservation and occupational health.

We select building materials with low aggregate energy and high durability to reduce energy consumption during their life cycle. Throughout the grounds we have planted local flora and fauna, ensuring that the proportion of external permeable ground cover is no less than 30% of the total area.

Company Profile

>> Established in 2005, Ginlong (Solis) (Stock Code: 300763.SZ) is one of most experienced and largest manufacturers of solar inverters.

Cost-effective solutions for residential, commercial, and utility-scale users deliver value at every level of the solar supply chain, engaging both homeowners and businesses, as well as power producers and renewable energy investors across the globe.

Presented under the Solis brand, the company's solar inverter product line uses innovative string technology to deliver first-class reliability, validated under the most stringent international certifications.

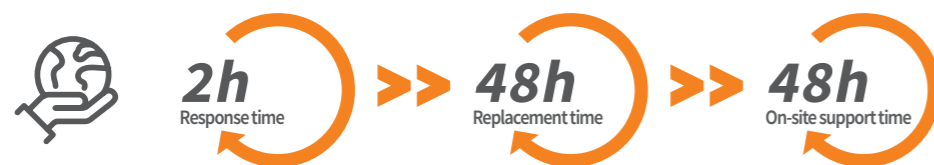
Combining a global supply chain with world-class R&D and manufacturing capabilities, Ginlong optimizes its Solis inverters for each regional market, servicing and supporting its customers with its teams of local experts.

Proven bankability has attracted support from world leading financial institutions, ensuring solid long-term returns on investment. Working with stakeholders to accelerate the worlds journey towards a more sustainable future.



Global Reach, Local Expertise

>> With 23 offices and service centers around the world, including the Australia, Brazil, China, France, Germany, India, Italy, Korea, Mexico, Myanmar, Malaysia, Netherlands, Philippines, Poland, Romania, South Africa, Spain, Sweden, Turkey, Thailand, UK, USA and Vietnam, Solis has a well-established and expanding global presence.



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.



Solis Global Structure

>> Global HQ [China]



Global Reach



Solis inverter installed on the Eiffel Tower in Paris

Contents



Residential Solar PV Solutions

Solis residential string inverters are cost-effective and efficient residential green power leaders, providing smarter green power solutions for your residential buildings.

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Residential Energy Storage Solutions

The Solis residential energy storage family, covers single-phase and three-phase application scenarios. It aims to provide energy storage solutions for PV systems to achieve the goal of residential zero-carbon green electricity. The power range covers 3kW - 6kW.

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Off-grid Energy Storage Solutions

The Solis off-grid inverter series is designed for areas without power grids or areas with frequent power outages or shutdowns/load-shedding. Supports parallel operation of up to 10 units and is compatible with oil generators. Ideal for household and small commercial applications.

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Commercial & Industrial Solar PV Solutions

Solis' C&I string inverter product line is broad with a power range cover 25kW - 110kW, providing you with the best industry green power solutions.

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Utility Scale Solar PV Solutions

Solis has optimized and innovated the whole process of utility solar PV solutions, integrated PV system design, digital management, and IoT technology.

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Export Power Management Solutions

In some countries local regulations limit the amount of PV power that can be exported to the grid or allow no export. Solis offers two export limitation solutions for single and multiple inverters system.

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SolisCloud: Intelligent Solar Energy System Monitoring

The SolisCloud intelligent monitoring system includes hardware and software products and is a comprehensive energy management solution. Hardware products, including data stick, data box, EPM and PLC, etc; transmit to SolisCloud online energy management platform. Real-time monitoring, visualized management and remote O & M of residential, C&I and utility scale solar PV plants.

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Residential Solar PV Solutions

>> Solis residential string inverters are cost-effective and efficient green power leaders, providing smarter green power solutions for your residential buildings. A variety of models and solutions meet the needs of modern homes.

The portfolio includes single-phase and small three-phase string inverters, with a wide range of models, providing the best home green power solutions based on your application scenarios and specific needs.

Solis Residential inverters are small and light, allowing for just one person to complete the installation. The overall design is sleek and modern, with low noise, particularly suitable for home installation without

affecting people's daily activities.

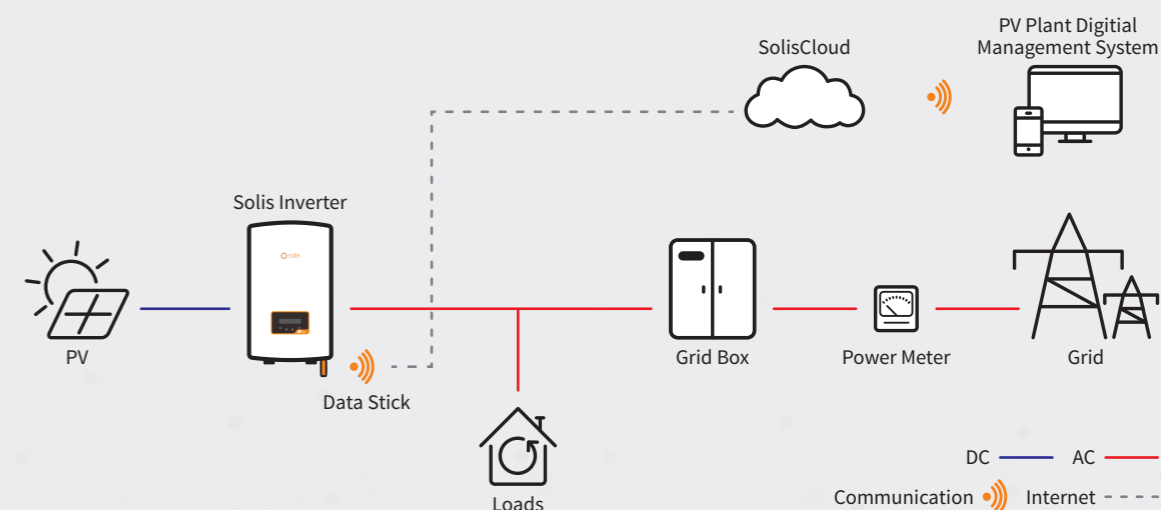
Via online or App, you can connect to SolisCloud for intelligent energy management. Simple operation and convenient management.

Solis residential solutions are technically advanced, flexible and simplify integration with digital home automation equipment and smart grids.

>> **Models:** S6-GR1P(1-3)K-M
S6-GR1P(4-5)K
S5-GR3P(5-20)K

Output: 1 kW - 20 kW

Residential Solar PV Solution



S6-GR1P(1-3)K-M

Solis Mini Series Inverters

>> Models:

S6-GR1P1K-M

S6-GR1P1.5K-M

S6-GR1P2K-M

S6-GR1P2.5K-M

S6-GR1P3K-M



360° View

Features:

- Max. efficiency 97.1%
 - String current up to **14A**
 - Super high frequency switching technology
 - Wide voltage range and low startup voltage
 - Precise MPPT algorithm
- Intergrated Export Power Manager (EPM)
 - AFCI protection, proactively reduces fire risk
 - Compact and lightweight
 - Friendly and adaptable connection to the grid

DATASHEET

S6-GR1P(1-3)K-M

Models	1K	1.5K	2K	2.5K	3K
Input DC					
Recommended max. PV power	1.5 kW	2.3 kW	3 kW	3.8 kW	4.5 kW
Max. input voltage	600 V				
Rated voltage	200 V		330 V		
Start-up voltage	60 V		90 V		
MPPT voltage range	50-500 V		80-500 V		
Max. input current	14 A				
Max. short circuit current	22 A				
MPPT number/Max. input strings number	1/1				
Output AC					
Rated output power	1 kW	1.5 kW	2 kW	2.5 kW	3 kW
Max. apparent output power	1.1 kVA	1.65 kVA	2.2 kVA	2.75 kVA	3.3 kVA
Max. output power	1.1 kW	1.65 kW	2.2 kW	2.75 kW	3.3 kW
Rated grid voltage	1/N/PE, 220 V / 230 V				
Rated grid frequency	50 Hz / 60 Hz				
Rated grid output current	4.5 A / 4.3 A	6.8 A / 6.5 A	9.1 A / 8.7 A	11.4 A / 10.9 A	13.6 A / 13 A
Max. output current	5.2 A	8.1 A	10.5 A	13.3 A	15.7 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)				
THDi	<3%				
DC injection current	<0.5% In				
Efficiency					
Max. efficiency	96.6%	96.6%	97.1%	97.1%	
EU efficiency	95.3%	95.4%	96.6%	96.7%	
Protection					
DC reverse-polarity protection	Yes				
Short circuit protection	Yes				
Output over current protection	Yes				
Surge protection	Yes				
Grid monitoring	Yes				
Anti-islanding protection	Yes				
Temperature protection	Yes				
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾				
Integrated DC switch	Yes				
General Data					
Dimensions (W*H*D)	310*373*160 mm				
Weight	7.4 kg			7.7 kg	
Topology	Transformerless				
Self-consumption (night)	<1 W				
Operating ambient temperature range	-25 ~ +60°C				
Relative humidity	0-100%				
Ingress protection	IP66				
Noise emission (typical)	<20 dB(A)				
Cooling concept	Natural convection				
Max. operation altitude	4000 m				
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)				
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4				
Features					
DC connection	MC4 connector				
AC connection	Quick connection plug				
Display	LCD				
Communication	RS485, Optional: DLS-W, DLS-G				

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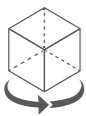
S6-GR1P(4-5)K

Solis Single Phase Inverters

>> Models:

S6-GR1P4K

S6-GR1P5K



360° View

Features:

- Max. efficiency 97.7%
 - String current up to **14A**
 - Super high frequency switching technology
 - Wide voltage range and low startup voltage
 - 2 MPPT design with precise MPPT algorithm
- Intergrated Export Power Manager (EPM)
 - AFCI protection, proactively reduces fire risk
 - Compact and lightweight
 - Friendly and adaptable connection to the grid

DATASHEET

S6-GR1P(4-5)K

Models	4K	5K
Input DC		
Recommended max. PV power	6 kW	7.5 kW
Max. input voltage	600 V	
Rated voltage	330 V	
Start-up voltage	120 V	
MPPT voltage range	90-520 V	
Max. input current	14 A / 14 A	
Max. short circuit current	22 A / 22 A	
MPPT number/Max. input strings number	2/2	
Output AC		
Rated output power	4 kW	5 kW
Max. apparent output power	4.4 kVA	5 kVA
Max. output power	4.4 kW	5 kW
Rated grid voltage	1/N/PE, 220 V / 230 V	
Rated grid frequency	50 Hz / 60 Hz	
Rated grid output current	18.2 A / 17.4 A	22.7 A / 21.7 A
Max. output current	21.0 A	25.0 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
DC injection current	<0.5% In	
Efficiency		
Max. efficiency	97.6%	97.7%
EU efficiency	97.1%	
Protection		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	Yes	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾	
Integrated DC switch	Yes	
General Data		
Dimensions (W*H*D)	310*543*160 mm	
Weight	12 kg	
Topology	Transformerless	
Self-consumption (night)	<1 W	
Operating ambient temperature range	-25 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP66	
Noise emission (typical)	<20 dB(A)	
Cooling concept	Natural convection	
Max. operation altitude	4000 m	
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)	
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-2/-3	
Features		
DC connection	MC4 connector	
AC connection	Quick connection plug	
Display	LCD	
Communication	RS485, Optional: DLS-W, DLS-G	

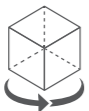
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S5-GR3P(5-20)K

Solis Three Phase Inverters

>> Models:

- S5-GR3P5K S5-GR3P13K
- S5-GR3P6K S5-GR3P15K
- S5-GR3P8K S5-GR3P17K
- S5-GR3P10K S5-GR3P20K
- S5-GR3P12K



360° View

Efficient

- Max. efficiency 98.7%
- String current up to **16A**
- Wide voltage range and low startup voltage

Smart

- Supports export power control
- Supports RS485, WiFi, GPRS
- Scan to register on SolisCloud, supports remote upgrade and control

Safe

- IP66
- AFCI protection, proactively reduces fire risk
- Automatic voltage stabilization technology in weak grid conditions

Economic

- Compact design, simple installation and maintenance
- > 150% DC/AC ratio
- Supports high power modules for lower installation costs

DATASHEET

Models	5K	6K	8K	10K	12K	13K	15K	17K	20K
Input DC									
Recommended max. PV power	7.5 kW	9 kW	12 kW	15 kW	18 kW	19.5 kW	22.5 kW	25.5 kW	30 kW
Max. input voltage	1100 V								
Rated voltage	600 V								
Start-up voltage	180 V								
MPPT voltage range	160-1000 V								
Max. input current	16 A / 16 A				32 A / 32 A				
Max. short circuit current	20 A / 20 A				40 A / 40 A				
MPPT number/Max. input strings number	2/2				2/4				
Output AC									
Rated output power	5 kW	6 kW	8 kW	10 kW	12 kW	13 kW	15 kW	17 kW	20 kW
Max. apparent output power	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA	13.2 kVA	14.3 kVA	16.5 kVA	18.7 kVA	22 kVA
Max. output power	5.5 kW	6.6 kW	8.8 kW	11 kW	13.2 kW	14.3 kW	16.5 kW	18.7 kW	22 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V								
Rated grid frequency	50 Hz / 60 Hz								
Rated grid output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A	18.2 A / 17.3 A	19.8 A / 18.8 A	22.8 A / 21.7 A	25.8 A / 24.6 A	30.4 A / 28.9 A
Max. output current	7.9 A	9.5 A	12.7 A	15.9 A	19.1 A	20.7 A	23.8 A	27 A	31.8 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)								
THDi	<2%								
DC injection current	<0.5% In								
Efficiency									
Max. efficiency	98.3%		98.5%		98.6%			98.7%	
EU efficiency	97.7%		97.9%		98.0%			98.1%	
Protection									
DC reverse-polarity protection	Yes								
Short circuit protection	Yes								
Output over current protection	Yes								
Surge protection	Yes								
Grid monitoring	Yes								
Anti-islanding protection	Yes								
Temperature protection	Yes								
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾								
Integrated DC switch	Yes								
General Data									
Dimensions (W*H*D)	310*563*219 mm								
Weight	17.8 kg					18.8 kg		20 kg	
Topology	Transformerless								
Self-consumption (night)	<1 W								
Operating ambient temperature range	-25 ~ +60°C								
Relative humidity	0-100%								
Ingress protection	IP66								
Noise emission (typical)	<30 dB(A)				<60 dB(A)				
Cooling concept	Natural convection				Intelligent redundant fan-cooling				
Max. operation altitude	4000 m								
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)								
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4								
Features									
DC connection	MC4 connector								
AC connection	Quick connection plug								
Display	LCD								
Communication	RS485, Optional: DLS-W, DLS-G								

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>> Case Study

6kW Sydney Rooftop power plant

With plenty of sunshine, it's no surprise more than one in five Australian homes now has solar power. With 18 panels totally 6.6 kilowatts and a 10 kilowatt-hour battery. Their costs are set to drop from \$600 a quarter to around \$340. This project is in a very good position to save almost \$1200 a year.



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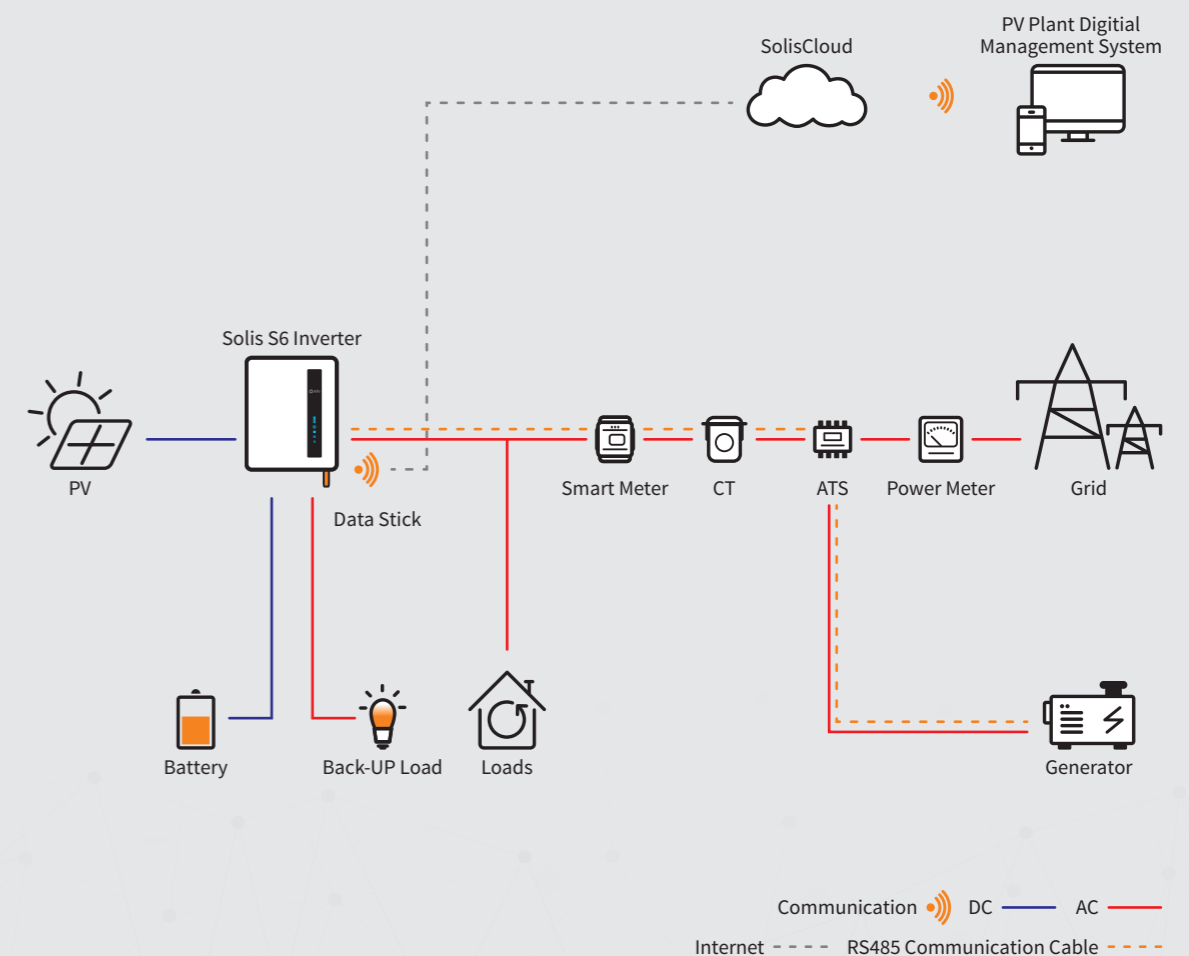
Residential Energy Storage Solutions

>> The Solis residential energy storage family has abundant products, covering single-phase and three-phase application scenarios. It aims to provide energy storage solutions for PV systems to achieve the goal of real residential zero-carbon green electricity. The power range covers 3 kW - 6 kW. We can according to the requirements of your project application scenarios, rely on our flexible products to provide you with the best residential zero-carbon green power solutions.

>> **Models:** S6-EH1P(3-6)K-L-EU

Output: 3 kW - 6 kW

Residential Energy Storage Solution - S6 series



S6-EH1P(3-6)K-L-EU

Solis Energy Storage Inverters

>> Models:

- S6-EH1P3K-L-EU
- S6-EH1P3.6K-L-EU
- S6-EH1P4.6K-L-EU
- S6-EH1P5K-L-EU
- S6-EH1P6K-L-EU



Highly Flexible

- Integrated 2 MPPTs, suitable for residential rooftop installations with multiple array orientations
- Compatible with multiple brands of battery models giving customers multiple battery options

Intelligent Function

- Supports up to 10 units in parallel on Grid and Backup. Suitable for small to medium level commercial energy storage systems
- Supports pure off grid applications with generator communication support
- Multiple working modes to meet different use case scenarios
- Controllable and Upgradeable via the SolisCloud App to avoid site visits

Safe and Reliable

- Safety protection with integrated AFCI function, which actively detects arc faults in the PV Array
- Natural convection design without external fans

Outstanding Performance

- Up to **16A** of MPPT current input to support 182mm/210mm solar panels
- Supports 1.6 DC:AC ratio to connect more PV capacity to the energy storage system
- Up to 125A/6kW max charge/discharge rating with industry highest level 6kW of backup loads support capability
- UPS level switching time (<10ms) supporting critical loads all the time
- High PV charge efficiency to prevent excess PV loss

DATASHEET

S6-EH1P(3-6)K-L-EU

Models	3K	3.6K	4.6K	5K	6K
Input DC (PV side)					
Recommended max. PV power	4.8 kW	5.7 kW	7 kW	8 kW	9.6 kW
Max. input voltage	600 V				
Rated voltage	330 V				
Start-up voltage	90 V				
MPPT voltage range	90-520 V				
Max. input current	16 A / 16 A				
Max. short circuit current	24 A / 24 A				
MPPT number/Max. input strings number	2/2				
Battery					
Battery type	Li-ion / Lead-acid				
Battery voltage range	40 - 60 V				
Battery capacity	50 - 2000 Ah				
Max. charge / discharge power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW
Max. charge / discharge current	62.5 A	75 A	100 A	105 A	125 A
Communication	CAN/RS485				
Output AC (Back-up)					
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW
Max. apparent output power	4.2 kVA, 60sec	5 kVA, 60sec	6.4 kVA, 60sec	7 kVA, 60sec	8 kVA, 60sec
Back-up switch time	<10 ms				
Rated output voltage	1/N/PE, 220 V / 230 V				
Rated frequency	50 Hz / 60 Hz				
Rated output current	21.8 A	26.2 A	33.4 A	36.5 A	40 A
THDv (@linear load)	<2%				
Input AC (Grid side)					
Input voltage range	187-265 V				
Max. input current	20.4 A	24.6 A	31.4 A	34.2 A	40 A
Frequency range	45-55 Hz / 55-65 Hz				
Output AC (Grid side)					
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW
Max. apparent output power	3.3 kVA	4 kVA	4.6 kVA	5.5 kVA	6.6 kVA
Operation phase	1/N/PE				
Rated grid voltage	220 V / 230 V				
Rated grid frequency	50 Hz / 60 Hz				
Rated grid output current	13.6 A / 13.1 A	16.4 A / 15.7 A	20.9 A / 20 A	22.8 A / 21.8 A	27.3 A / 26.1 A
Max. output current	15 A	18.2 A	21 A	25 A	30 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)				
THDi	<2%				
Efficiency					
Max. efficiency	>97.9%				
EU efficiency	>97.2%				
BAT charged by PV Max. efficiency	> 97.5%				
BAT charged/discharged to AC Max. efficiency	> 97.5%				
Protection					
DC reverse-polarity protection	Yes				
Ground fault monitoring	Yes				
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾				
Protection class/Over voltage category	I/II				
General Data					
Dimensions (W*H*D)	380*480*190 mm				
Weight	19.3 kg				
Topology	High frequency isolation (for battery)				
Operating ambient temperature range	-25 ~ +60°C				
Ingress protection	IP66				
Noise emission (typical)	<30 dB(A)				
Cooling concept	Natural convection				
Max. operation altitude	4000 m				
Grid connection standard	G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA				
Safety/EMC standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3				
Features					
DC connection	MC4 connector				
AC connection	Quick connection plug				
Display	LED + APP				
Communication	RS485, Ethernet, CAN, Optional: DLS-W, DLS-G, LAN				

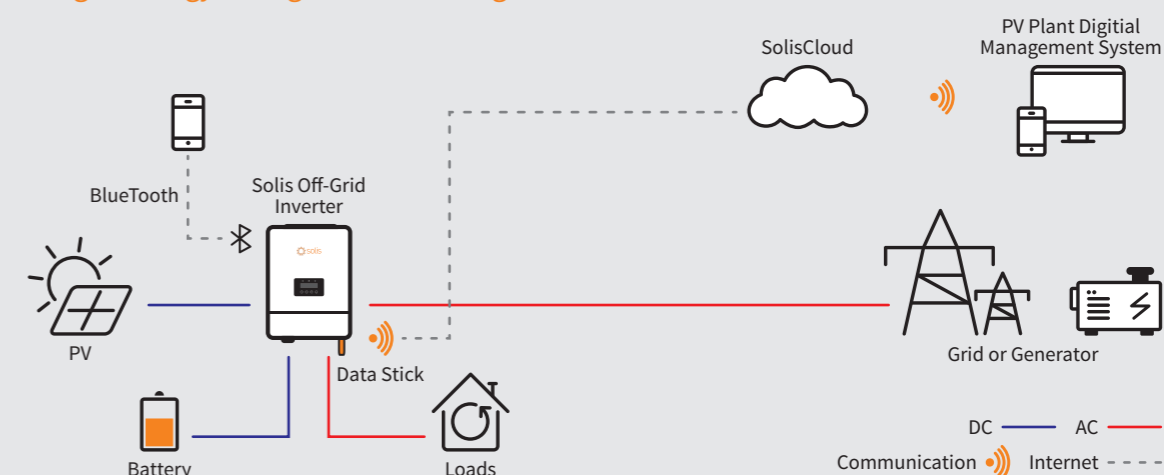
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Off-grid Energy Storage Solutions

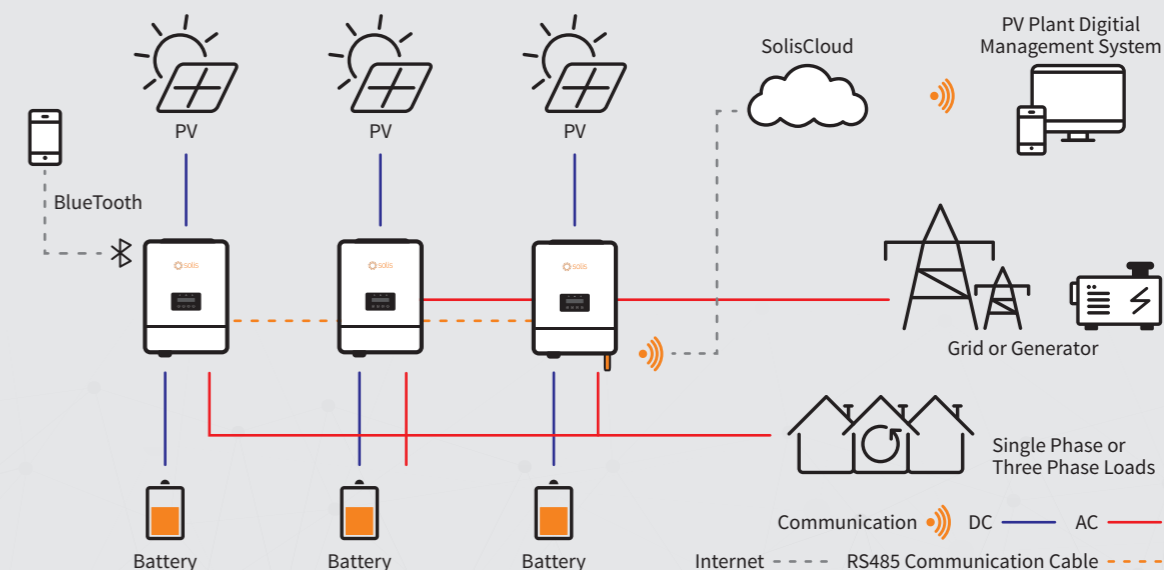
>> Solis EO series inverter is designed for residential off-grid systems in the countries without stable grid power, which can work with batteries to supply power to load and can also charge the batteries through PV plants, grid or generator.

The product has a variety of application scenarios combination modes, and can realize modular system assembly configuration according to needs. And can provide multiple products in parallel to form up to 50kW three-phase or single-phase parallel operation system, which is very suitable for small industrial, commercial or residential energy storage projects.

Off-grid Energy Storage Solution - Single EO Inverter



Off-grid Energy Storage Solution - Multiple Parallel EO Inverters



S5-EO1P(4-5)K-48

Solis Energy Storage Inverters

>> Models:

- S5-EO1P4K-48
- S5-EO1P4K-48-P
- S5-EO1P5K-48
- S5-EO1P5K-48-P



Flexible Communications

- Integrated LCD display
- Built-in bluetooth communication
- Remote control & firmware upgrade

Adaptive

- Configurable AC/solar input priority based on applications
- Parallel operation up to 10 units (50kW)
- Support 3 phase unbalanced parallel operation
- Intelligent EMS function

High Performance

- 80 Amp AC charger and 100 Amp solar charger
- Maximum PV input voltage up to 500VDC
- Built-in MPPT solar charge controller

Battery Friendly

- Compatible with all top-tier brands of lithium batteries and lead-acid batteries
- Battery equalization for increased battery performance and lifespan
- Functional with or without a battery
- One-click fast charging mode
- Manual wakeup the overdischarged battery to extend battery lifespan

DATASHEET

S5-EO1P(4-5)K-48

Models	4K-48	4K-48-P	5K-48	5K-48-P
Parallel capability	NO	Yes, 10 units	NO	Yes, 10 units
Battery				
Rated battery voltage	48 V			
Battery type	Li-ion / Lead-acid			
Max. charge / discharge current	100 A			
Communication	CAN/RS485			
Inverter Output				
Rated output power	4 kVA / 4 kW		5 kVA / 5 kW	
Rated output voltage	230 V ± 1%			
Rated frequency	50 Hz / 60 Hz ± 0.1%			
Surge capacity	8 kVA		10 kVA	
Output voltage waveform	Pure sine wave			
Transfer time	10 ms typical, 20 ms Max			
THDv (@linear load)	<3%			
Peak efficiency (PV-AC)	96.7%			
Solar Charger				
Solar charger type	MPPT			
Recommended max. PV power	5 kW		5.5 kW	
Max. input voltage	500 V			
MPPT voltage range	90-480 V			
MPPT number/Max. input strings number	1/2			
Max. input current per MPPT	26 A ⁽¹⁾			
Max. solar charge current	100 A			
AC Charger				
Rated input voltage	230 V			
Selectable voltage range	90-280 V			
AC frequency range	50 Hz / 60 Hz (Auto sensing)			
Max. AC charge current	60 A		80 A	
Protection				
Output over voltage protection	Yes			
Output over current protection	Yes			
Short circuit protection	Yes			
Surge protection	Yes			
Temperature protection	Yes			
Integrated AFCI (DC arc-fault circuit protection)	Yes			
General Data				
Dimensions (W*H*D)	335*450*160 mm			
Weight	14 kg			
Relative humidity	5% to 95% (Non-condensing)			
Operating ambient temperature range	-10 ~ +60°C			
Storage temperature range	-25 ~ +60°C			
Ingress protection	IP21			
Max. operation altitude	2000 m			
Safety standard	IEC 62109, IEC 61000			
Features				
DC connection	Terminal connectors			
AC connection	Terminal connectors			
Display	LCD			
Communication	CAN, BMS, RS485, Dry-contact			

(1) Max. input current per string will be 26A for one string's design and 13A for two strings' design;
Max. input short current per string will be 32A for one string's design and 16A for two strings' design.

Commercial & Industrial Solar PV Solutions

>> Solis industrial and commercial string inverter product line is rich, the power range covers 25kW - 110kW, no matter how large your design and requirements are, we can rely on our flexible products to provide you with the best industry green power solutions.

Solis provides the most extensive industrial and commercial string inverter products on the market, and the products are sold well in various countries and regions in the world. They perform well in various harsh and complex environments, and are very stable and reliable.

Solis' C&I products are compatible with modularity and flexibility in program design. From the perspective of inverter performance improvement, we provide an ideal solution for simplifying system planning and design. Including optimizing software algorithms, optimizing hardware port compatibility, etc., to improve system efficiency and reduce system

investment costs.

The power range of Solis' C&I products covers a wide range, with a single power up to 110kW. High-efficiency and high-power-density inverters can reduce installation and maintenance workloads and improve overall cost efficiency.

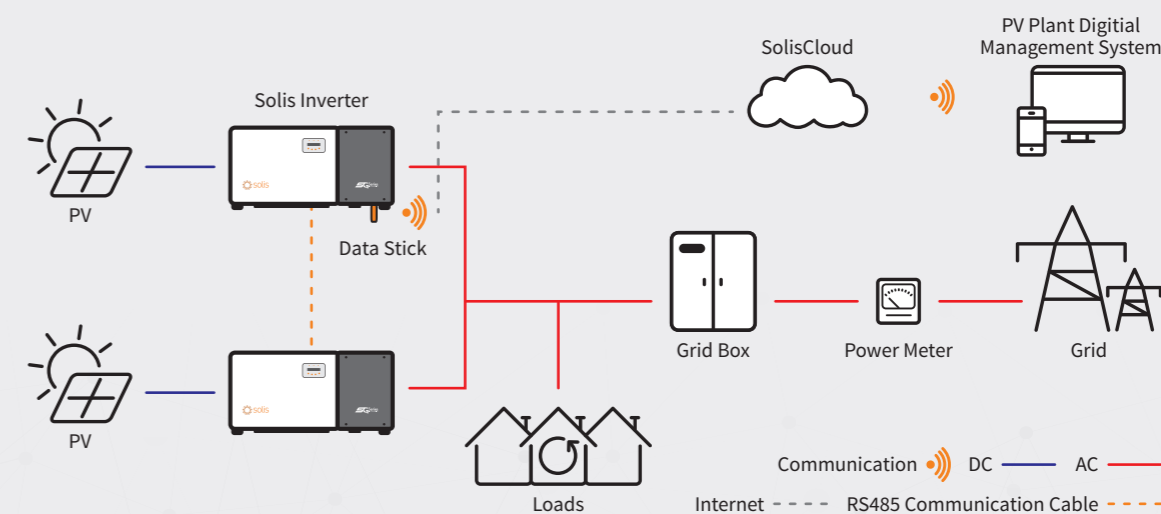
Solis' C&I solutions are supplemented by a series of advanced digital services based on SolisCloud, simplifying the application difficulty of intelligent systems, and providing you with more complete, high-quality and efficient cloud intelligent operation and maintenance solutions.

>> Models:

S5-GC(25-50)K S5-GC80K
S5-GC(50-70)K Solis-(100-110)K-5G
Solis-80K-5G S5-GC(100-110)K

Output: 25 kW - 110 kW

Commercial & Industrial Solar PV Solution



S5-GC(25-50)K

Solis Three Phase Inverters

>> Models:

- S5-GC25K
- S5-GC30K
- S5-GC33K
- S5-GC40K
- S5-GC40K-HV
- S5-GC50K-HV



Efficient

- Max. efficiency 98.8%
- String current up to **16A**
- 3/4 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)
- Wide voltage range and low startup voltage

Safe

- IP66
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life
- Intelligent redundant fan-cooling

Smart

- Supports export power control
- Intelligent string monitoring, smart I-V curve scan
- Supports RS485, WiFi, GPRS
- Scan to register on SolisCloud, supports remote upgrade and control

Economic

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- > 150% DC/AC ratio
- Supports high power modules for lower installation costs
- Supports aluminium wire access to reduce cost

DATASHEET

DATASHEET		S5-GC(25-50)K				
Models	25K	30K	33K	40K	40K-HV	50K-HV
Input DC						
Recommended max. PV power	37.5 kW	45 kW	49.5 kW	60 kW	60 kW	75 kW
Max. input voltage	1100 V					
Rated voltage	600 V					
Start-up voltage	180 V					
MPPT voltage range	200-1000 V					
Max. input current	32 A / 32 A / 32 A			4*32 A		
Max. short circuit current	40 A / 40 A / 40 A			4*40 A		
MPPT number/Max. input strings number	3/6			4/8		
Output AC						
Rated output power	25 kW	30 kW	33 kW	40 kW	40 kW	50 kW
Max. apparent output power	27.5 kVA	33 kVA	36.3 kVA	44 kVA	44 kVA	55 kVA
Max. output power	27.5 kW	33 kW	36.3 kW	44 kW	44 kW	55 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V				3/PE, 480 V	
Rated grid frequency	50 Hz / 60 Hz					
Rated grid output current	38.0 A / 36.1 A	45.6 A / 43.3 A	50.1 A / 47.6 A	60.8 A / 57.7 A	48.1 A	60.1 A
Max. output current	41.8 A	50.2 A	55.1 A	66.9 A	53.0 A	66.2 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)					
THDi	<3%					
DC injection current	<0.5% In					
Efficiency						
Max. efficiency	98.5%		98.6%	98.7%	98.8%	
EU efficiency	98.1%		98.2%	98.3%	98.4%	
Protection						
DC reverse-polarity protection	Yes					
Short circuit protection	Yes					
Output over current protection	Yes					
Surge protection	DC Type II / AC Type II					
Grid monitoring	Yes					
Anti-islanding protection	Yes					
Temperature protection	Yes					
Strings monitoring	Yes					
I/V Curve scanning	Yes					
Integrated PID recovery	Optional					
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾					
Integrated DC switch	Yes					
General Data						
Dimensions (W*H*D)	647*629*252 mm					
Weight	37 kg					
Topology	Transformerless					
Self-consumption (night)	<1 W					
Operating ambient temperature range	-25 ~ +60°C					
Relative humidity	0-100%					
Ingress protection	IP66					
Noise emission (typical)	≤60 dB(A)					
Cooling concept	Intelligent redundant fan-cooling					
Max. operation altitude	4000 m					
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)					
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4					
Features						
DC connection	MC4 connector					
AC connection	Screw type terminal block					
Display	LCD					
Communication	RS485, Optional: DLS-W, DLS-G					

(1) Activation required.

S5-GC(50-70)K

Solis Three Phase Inverters

>> Models:

- S5-GC50K
- S5-GC60K
- S5-GC60K-HV
- S5-GC70K-HV



360° View



Efficient

- Max. efficiency 98.7%
- String current up to **16A**
- 5/6 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)

Smart

- Night SVG function
- Supports export power control
- Intelligent string monitoring, smart I-V curve scan
- Scan to register on SolisCloud, supports remote upgrade and control

Safe

- IP66, C5 Anti-Corrosion Level
- Intelligent redundant fan-cooling
- Globally recognised branded componentry for longer life
- AFCI protection, proactively reduces fire risk

Economic

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost
- 10/12 string inputs allow for 150%+ DC oversizing

DATASHEET

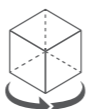
S5-GC(50-70)K

Models	50K	60K	60K-HV	70K-HV
Input DC				
Recommended max. PV power	75 kW	90 kW	90 kW	105 kW
Max. input voltage	1100 V			
Rated voltage	600 V		720 V	
Start-up voltage	195 V			
MPPT voltage range	180-1000 V			
Max. input current	5*32 A	6*32 A		
Max. short circuit current	5*40 A	6*40 A		
MPPT number/Max. input strings number	5/10	6/12		
Output AC				
Rated output power	50 kW	60 kW	60 kW	70 kW
Max. apparent output power	55 kVA	66 kVA	66 kVA	77 kVA
Max. output power	55 kW	66 kW	66 kW	77 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V		3/PE, 480 V	
Rated grid frequency	50 Hz / 60 Hz			
Rated grid output current	76.0 A / 72.2 A	91.2 A / 86.6 A	72.2 A	84.2 A
Max. output current	83.6 A	100.3 A	79.4 A	92.6 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<3%			
DC injection current	<0.5% In			
Efficiency				
Max. efficiency	98.7%			
EU efficiency	98.3%		98.4%	
Protection				
DC reverse-polarity protection	Yes			
Short circuit protection	Yes			
Output over current protection	Yes			
Surge protection	DC Type II / AC Type II			
Grid monitoring	Yes			
Anti-islanding protection	Yes			
Temperature protection	Yes			
Strings monitoring	Yes			
I/V Curve scanning	Yes			
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾			
Integrated PID recovery	Optional ⁽²⁾			
Integrated DC switch	Yes			
General Data				
Dimensions (W*H*D)	691*578*338 mm			
Weight	54.5 kg			
Topology	Transformerless			
Self-consumption (night)	<1 W			
Operating ambient temperature range	-25 ~ +60°C			
Relative humidity	0-100%			
Ingress protection	IP66			
Noise emission (typical)	<55 dB(A)			
Cooling concept	Intelligent redundant fan-cooling			
Max. operation altitude	4000 m			
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)			
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4			
Features				
DC connection	MC4 connector			
AC connection	OT terminal (max. 70 mm²)			
Display	LCD, Capacitive touch buttons			
Communication	RS485, USB, Optional: DLS-W, DLS-G			

(1) Activation required. (2) Due to the similar functional logic, when the night time PID-Recovery function is integrated, the night time var compensation function can not be used. Also, the negative grounding option is not available for inverters with night time PID-Recovery function.

Solis-80K-5G

Solis Three Phase Inverters



360° View

>> Models:

Solis-80K-5G



Efficient

- 9 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- Compatible with bifacial modules

Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Safe

- IP66
- Built-in PID recovery for better module performance (optional)
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

DATASHEET

Solis-80K-5G

Models

80K

Input DC	
Max. input voltage	1100 V
Rated voltage	600 V
Start-up voltage	195 V
MPPT voltage range	180-1000 V
Max. input current	9*26 A
Max. short circuit current	9*40 A
MPPT number/Max. input strings number	9/18

Output AC	
Rated output power	80 kW
Max. apparent output power	88 kVA
Max. output power	88 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V
Rated grid frequency	50 Hz / 60 Hz
Rated grid output current	121.6 A / 115.5 A
Max. output current	133.7 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%
DC injection current	<0.5% In

Efficiency	
Max. efficiency	98.7%
EU efficiency	98.3%

Protection	
DC reverse-polarity protection	Yes
Short circuit protection	Yes
Output over current protection	Yes
Surge protection	DC Type II / AC Type II
Grid monitoring	Yes
Anti-islanding protection	Yes
Temperature protection	Yes
Strings monitoring	Yes
I/V Curve scanning	Yes
Integrated PID recovery	Optional
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾
Integrated DC switch	Yes
Integrated AC switch	Optional

General Data	
Dimensions (W*H*D)	1050*567*314.5 mm (with AC switch)
Weight	82 kg
Topology	Transformerless
Self-consumption (night)	<2 W
Operating ambient temperature range	-30 ~ +60°C
Relative humidity	0-100%
Ingress protection	IP66
Noise emission (typical)	≤65 dB(A)
Cooling concept	Intelligent redundant fan-cooling
Max. operation altitude	4000 m
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-2/-4

Features	
DC connection	MC4 connector
AC connection	OT terminal (max. 185 mm²)
Display	LCD
Communication	RS485, Optional: DLS-W, DLS-G, PLC

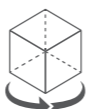
(1) Activation required.

S5-GC80K

Solis Three Phase Inverters

>> Models:

S5-GC80K



360° View

Efficient

- 9 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- String current up to **16A**, perfectly match large current bifacial modules

Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Safe

- IP66
- Built-in PID recovery for better module performance (optional)
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

DATASHEET

S5-GC80K

Models

80K

Input DC

Max. input voltage	1100 V
Rated voltage	600 V
Start-up voltage	195 V
MPPT voltage range	180-1000 V
Max. input current	9*32 A
Max. short circuit current	9*40 A
MPPT number/Max. input strings number	9/18

Output AC

Rated output power	80 kW
Max. apparent output power	88 kVA
Max. output power	88 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V
Rated grid frequency	50 Hz / 60 Hz
Rated grid output current	121.6 A / 115.5 A
Max. output current	133.7 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%
DC injection current	<0.5% In

Efficiency

Max. efficiency	98.7%
EU efficiency	98.3%

Protection

DC reverse-polarity protection	Yes
Short circuit protection	Yes
Output over current protection	Yes
Surge protection	DC Type II / AC Type II
Grid monitoring	Yes
Anti-islanding protection	Yes
Temperature protection	Yes
Strings monitoring	Yes
I/V Curve scanning	Yes
Integrated PID recovery	Optional
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾
Integrated DC switch	Yes
Integrated AC switch	Optional

General Data

Dimensions (W*H*D)	1050*567*314.5 mm (with AC switch)
Weight	85 kg
Topology	Transformerless
Self-consumption (night)	<2 W
Operating ambient temperature range	-30 ~ +60°C
Relative humidity	0-100%
Ingress protection	IP66
Noise emission (typical)	≤65 dB(A)
Cooling concept	Intelligent redundant fan-cooling
Max. operation altitude	4000 m
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-2/-4

Features

DC connection	MC4 connector
AC connection	OT terminal (max. 185 mm²)
Display	LCD
Communication	RS485, Optional: DLS-W, DLS-G, PLC

(1) Activation required.

Solis-(100-110)K-5G

Solis Three Phase Inverters



360° View

>> Models:

Solis-100K-5G Solis-110K-5G



DATASHEET

Solis-(100-110)K-5G

Models	100K	110K
Input DC		
Max. input voltage	1100 V	
Rated voltage	600 V	
Start-up voltage	195 V	
MPPT voltage range	180-1000 V	
Max. input current	10*26 A	
Max. short circuit current	10*40 A	
MPPT number/Max. input strings number	10/20	
Output AC		
Rated output power	100 kW	110 kW
Max. apparent output power	110 kVA	121 kVA
Max. output power	110 kW	121 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated grid frequency	50 Hz / 60 Hz	
Rated grid output current	152.0 A / 144.3 A	167.1 A / 158.8 A
Max. output current	167.1 A	183.8 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
DC injection current	<0.5% In	
Efficiency		
Max. efficiency	98.7%	
EU efficiency	98.3%	
Protection		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	DC Type II / AC Type II (AC Type I optional)	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Strings monitoring	Yes	
I/V Curve scanning	Yes	
Integrated PID recovery	Optional	
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾	
Integrated DC switch	Yes	
Integrated AC switch	Optional	
General Data		
Dimensions (W*H*D)	1065*567*344.5 mm	
Weight	91 kg	
Topology	Transformerless	
Self-consumption (night)	<2 W	
Operating ambient temperature range	-30 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP66	
Noise emission (typical)	≤65 dB(A)	
Cooling concept	Intelligent redundant fan-cooling	
Max. operation altitude	4000 m	
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)	
Safety/EMC standard	IEC 62109-1/-2, IEC 61000-6-2/-4	
Features		
DC connection	MC4 connector	
AC connection	OT terminal (max. 185 mm²)	
Display	LCD	
Communication	RS485, Optional: DLS-W, DLS-G, PLC	

(1) Activation required.

Efficient

- 10 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- High power tracking density 90MPPT/MW
- Compatible with bifacial modules

Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Safe

- AFCI protection, proactively reduces fire risk
- Built-in PID recovery for better module performance (optional)
- Type I SPD for AC (optional)
- Globally recognised branded componentry for longer life

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

S5-GC(100-110)K

Solis Three Phase Inverters



360° View

>> Models:

S5-GC100K S5-GC110K



Efficient

- 10 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- High power tracking density 90MPPT/MW
- String current up to **16A**, perfectly match large current bifacial modules

Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Safe

- AFCI protection, proactively reduces fire risk
- Built-in PID recovery for better module performance (optional)
- Type I SPD for AC (optional)
- Globally recognised branded componentry for longer life

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

DATASHEET

S5-GC(100-110)K

Models	100K	110K
Input DC		
Max. input voltage	1100 V	
Rated voltage	600 V	
Start-up voltage	195 V	
MPPT voltage range	180-1000 V	
Max. input current	10*32 A	
Max. short circuit current	10*40 A	
MPPT number/Max. input strings number	10/20	
Output AC		
Rated output power	100 kW	110 kW
Max. apparent output power	110 kVA	121 kVA
Max. output power	110 kW	121 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated grid frequency	50 Hz / 60 Hz	
Rated grid output current	152.0 A / 144.3 A	167.1 A / 158.8 A
Max. output current	167.1 A	183.8 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
DC injection current	<0.5% In	
Efficiency		
Max. efficiency	98.7%	
EU efficiency	98.3%	
Protection		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	DC Type II / AC Type II (AC Type I optional)	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Strings monitoring	Yes	
I/V Curve scanning	Yes	
Integrated PID recovery	Optional	
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾	
Integrated DC switch	Yes	
Integrated AC switch	Optional	
General Data		
Dimensions (W*H*D)	1065*567*344.5 mm	
Weight	91 kg	
Topology	Transformerless	
Self-consumption (night)	<2 W	
Operating ambient temperature range	-30 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP66	
Noise emission (typical)	≤65 dB(A)	
Cooling concept	Intelligent redundant fan-cooling	
Max. operation altitude	4000 m	
Grid connection standard	IEC 61683, IEC 60068, IEC 61727, IEC 62116, EN 50530, IS 16169 / IS 16221(BIS)	
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4	
Features		
DC connection	MC4 connector	
AC connection	OT terminal (max. 185 mm²)	
Display	LCD	
Communication	RS485, Optional: DLS-W, DLS-G, PLC	

(1) Activation required.



1.



2.



3.



4.



5.



6.



7.



8.

>> Case Study

2MW Solis Solar PV System Unlocks Over £80,000 Annual Electricity Costs Savings

With over 15 years of experience and zero bank debt, Solis ticked this box easily. Other points that led to Solis inverters being chosen were product reliability, grid connectivity and design flexibility offered by multiple MPPT's. Designed specifically for commercial rooftop applications, the 110kW integrates our fifth-generation technology and best-in-class components to deliver an industry leading efficiency and performance. Working together with our commercial customers we can ensure that the maximum energy yield and ROI is realised.

Utility Scale Solar PV Solutions

>> Solis has optimized and innovated around the entire process of utility solar PV solutions. Deeply integrated system design, digital management, and IoT technology effectively optimize the initial investment and future O&M costs of the power station increasing the power generation of the system and the rate of return on investment. Through the concept of "Efficient, safe, reliable, smart O&M, and system-friendly" we maximise the value for customers.

The 1500V high-power system solution can effectively reduce the number of equipment and cable consumption, reduce the initial investment cost, and facilitate installation and maintenance.

Solis utility PV solution has the characteristics of low LCOE. From the perspective of inverter performance improvement, it includes optimizing software algorithms and optimizing hardware port compatibility to improve system efficiency and reduce system investment costs.

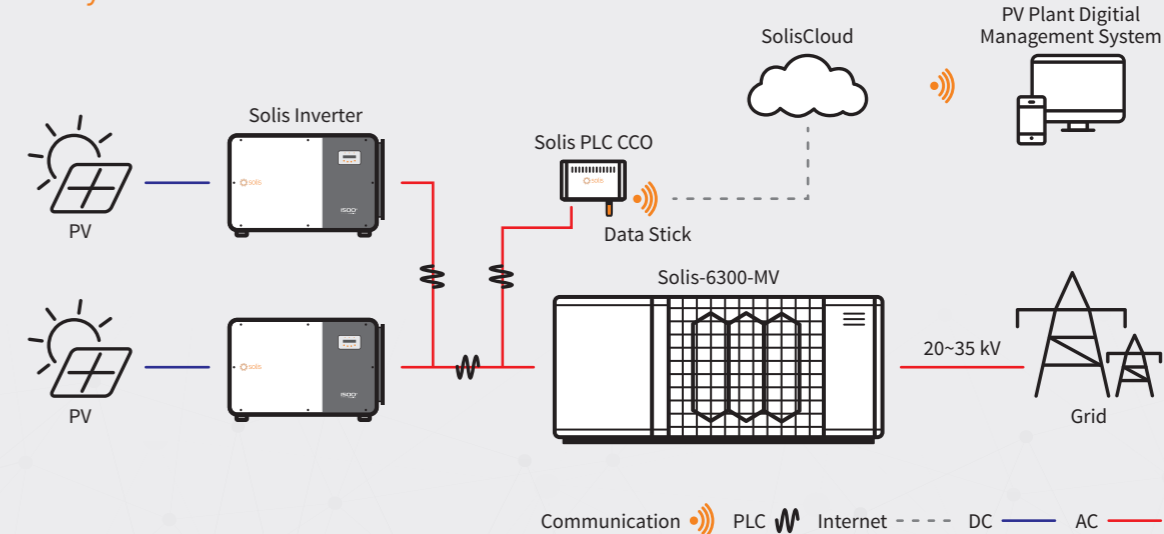
Solis utility inverter has a large single power, up to 255kW. The high-efficiency and high-power-density inverter can reduce the workload of installation and maintenance, reduce costs and improve efficiency.

Solis utility PV solution is supplemented by a series of advanced digital services and intelligent monitoring equipment based on SolisCloud, simplifying the application difficulty of the intelligent system, and providing a more complete, high-quality and efficient cloud smart O&M solution.

>> **Models:** Solis-(215-255)K-EHV-5G

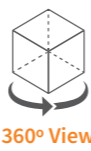
Output: 215 kW - 255 kW

Utility Scale Solar PV Solution



Solis-(215-255)K-EHV-5G

Solis Three Phase Inverters



>> Models:

- Solis-215K-EHV-5G-PLUS
- Solis-250K-EHV-5G
Solis-250K-EHV-5G-PLUS
- Solis-255K-EHV-5G
Solis-255K-EHV-5G-PLUS



DATASHEET

Solis-(215-255)K-EHV-5G

Models	215K-PLUS		250K	250-PLUS		255K	255K-PLUS
Input DC							
Max. input voltage	1500 V						
Rated voltage	1080 V						
Start-up voltage	500 V						
MPPT voltage range	480-1500 V						
Max. input current	9*30 A	14*26 A	12*30 A	14*26 A	12*30 A		
Max. short circuit current	9*50 A	14*40 A	12*50 A	14*40 A	12*50 A		
MPPT number/Max. input strings number	9/18	14/28	12/24	14/28	12/24		
Output AC							
Output power	215 kVA	250 kVA			255 kVA		
Rated grid voltage	3/PE, 800 V						
Grid voltage range	640-920 V						
Rated grid frequency	50 Hz / 60 Hz						
Max. output current	155.2 A	180.4 A			184.0 A		
Power factor	>0.99 (0.8 leading - 0.8 lagging)						
THDi	<3%						
DC injection current	<0.5% In						
Efficiency							
Max. efficiency	99.0%						
EU efficiency	98.8%	98.7%	98.8%	98.7%	98.8%		
Protection							
DC reverse-polarity protection	Yes						
Short circuit protection	Yes						
Output over current protection	Yes						
Surge protection	DC Type II / AC Type II						
Grid monitoring	Yes						
Anti-islanding protection	Yes						
Temperature protection	Yes						
Strings monitoring	Yes						
I/V Curve scanning	Yes						
Night time SVG function	Yes						
Integrated PID recovery	Yes						
Integrated DC switch	Yes						
General Data							
Dimensions (W*H*D)	1125*770*384 mm						
Weight	109 kg	113 kg					
Topology	Transformerless						
Self-consumption (night)	<2 W						
Operating ambient temperature range	-30 ~ +60°C						
Relative humidity	0-100%						
Ingress protection	IP66						
Noise emission (typical)	≤65 dB(A)						
Cooling concept	Intelligent redundant fan-cooling						
Max. operation altitude	4000 m						
Grid connection standard	EN50549, G99, AS4777.2, VDE0126, IEC61727, VDE4110, CEA 2019						
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4						
Features							
DC connection	MC4 connector						
AC connection	OT terminal (max. 300 mm²)						
Display	LCD						
Communication	RS485, Optional: PLC						

Efficient

- 9/12/14 MPPTs, max. efficiency 99.0%
- > 150% DC/AC ratio
- High power tracking density 60MPPT/MW
- Compatible with 500W+ bifacial modules

Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Safe

- IP66
- Built-in PID recovery for better module performance
- Fuse free design, safe and maintenance free
- Globally recognised branded componentry for longer life

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

Solis-6300-MV

Solis PV Station - For 1500 V string inverter Solis 255K



Integrated delivery

- Mainstream 6.3MW subarray,widely used global
- 20 foot standard container delivery, easy to transport

Convenient installation

- A complete solution, from inverter to main step-up transformer
- When the container is lifted to the foundation, only LV and MV cables need to be connected

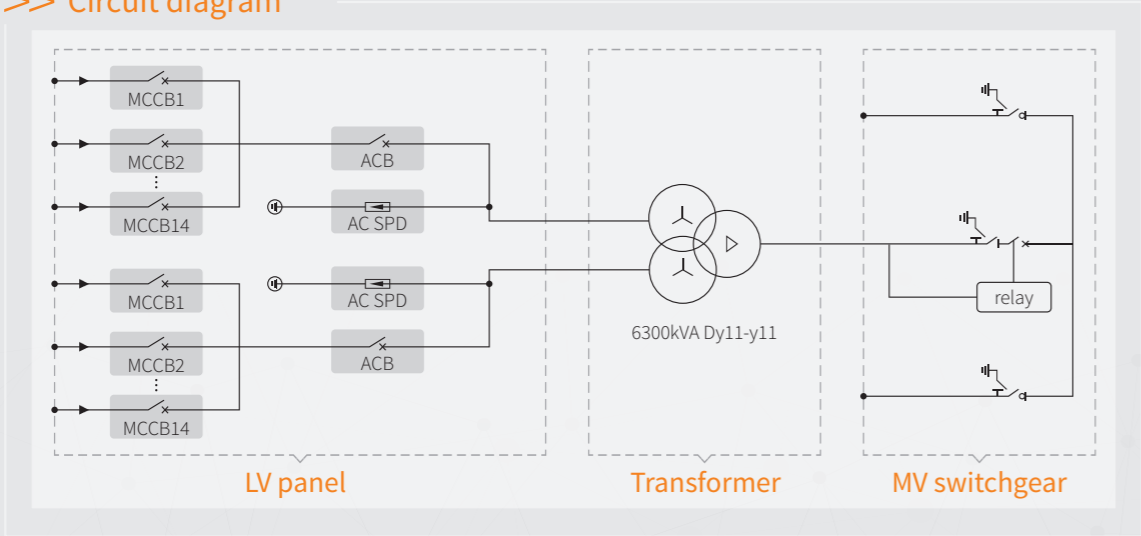
Reliable products

- LV panel, transformer and RMU be placed independently
- Adopt international first-line brand equipment with reliable quality

Easy O&M

- Full frontal maintenance design
- Modular design of MV equipment, easy to replace

>> Circuit diagram



DATASHEET

Solis-6300-MV

Models

6300

LV panel

MCCB specification	250 A / 800 Vac / 3P, 14*2 pcs
ACB specification	3200 A / 800 Vac / 3P, 1*2 pcs
Connection form with transformer	Copper busbar

Transformer

Transformer type	Oil immersed
Rated output power	6300 kVA @ 40°C
Max. output power	6930 kVA @ 40°C 3h
LV/MV voltage	0.8 kV / 10-35 kV
Max. input current	2577 A *2
Tapping on HV	±2*2.5%
Vector group	Dy11y11
Frequency	50 Hz / 60 Hz
Cooling type	ONAN
Impedance	7%
Oil type	Mineral oil (Optional: plant oil)
Winding material	Al/Al (Optional: Cu/Cu)
Insulation class	A
Connection form with MV switchgear	Cable

MV Switchgear

Type of insulate	SF6
Rate voltage	12-36 kV
Rate current	630 A
Internal arcing fault	20 kA / 1 s
Qty of feeder	3 feeders

Protection

LV surge protection	AC type I+II
AC input protection	Circuit breaker
Transformer protection	Oil-temperature, oil-level, oil-pressure
Fire protection	Smoke detection, emergency lighting

General Data

Dimensions (W*H*D)	6058*2896*2438 mm
Approximate weight	24 T
Operating temperature range	-25 ~ +60°C
Operating altitude	1000 m (standard)
Auxiliary power supply	5 kVA / 230 V (Optional: max. 40 kVA)
UPS	1 kVA 30 min (Optional: max. 2 kVA 2h)
Degree of protection	IP54
Allowable relative humidity range	0-95%
Communication	RS485, Ethernet, Optical fiber
Compliance	IEC 60076, IEC 62271, IEC61439

>> Case Study

World's Largest Tidal-Flat 300MW Utility Scale Solar PV Plant

After the project is put into operation, the generating capacity is estimated to be 400,000,000 kWh/ year and deliver a reduction of 350, 000 tons of CO₂, 12,000 tons of SO₂, and 110,000 tons of Carbon dust. Solis commercial scale string inverters boast an abundance of technological features which can adapt to a variety of environments. We look forward to seeing more applications utilizing Solis inverters. We stand committed to our mission - Developing Technology to Power the World with Clean Energy.

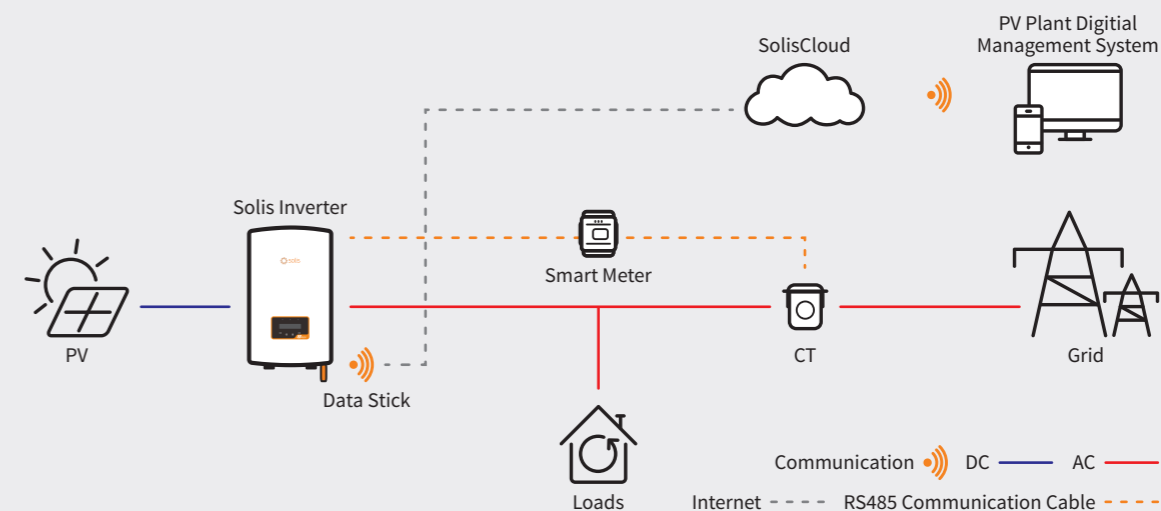


Export Power Management Solutions

>> In some countries local regulations limit the amount of PV power that can be exported to the grid or allow no export. Solis offers two export limitation solutions for single and multiple inverters system.

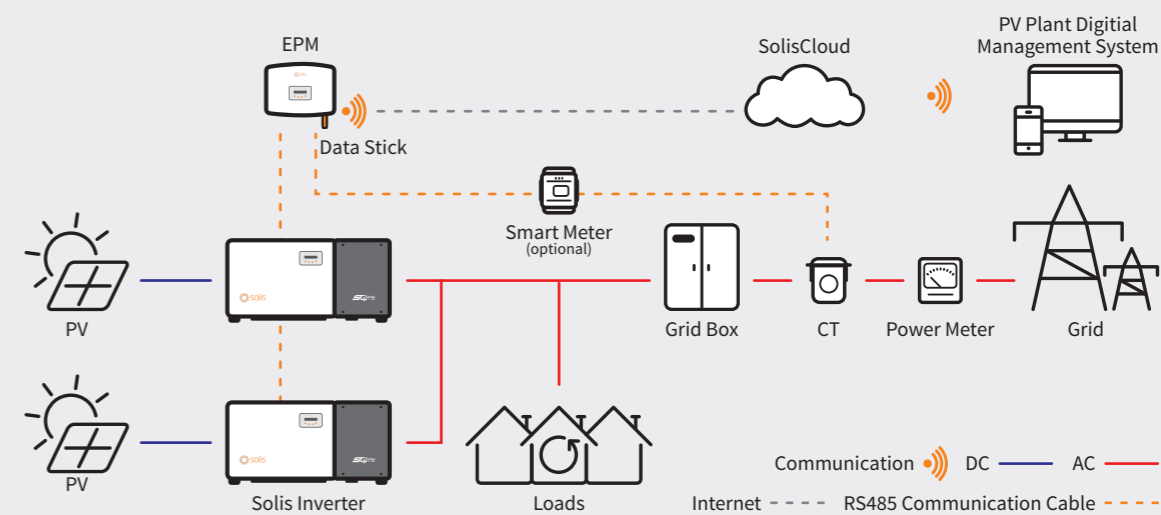
>> Export Power Management Solutions - Single-inverter System

In a single-inverter system, the export limitation is integrated into the inverter firmware. Use a meter or a CT to measure the output of the system, then to adjust PV power production.



>> Export Power Management Solution - Multi-inverter System

In a multi-inverter system, the export limitation is integrated into the EPM (Export Power Manager) firmware. The EPM will monitor and control the backflow power from the inverter to the grid thus providing export power control of inverters.



Solis-EPM-5G

Accessories - Solis Export Power Manager

>> Models:

Solis-EPM1-5G

Solis-EPM3-5G

Solis-EPM3-5G-PRO



Smart & strong

- Simultaneous control of 60 X Solis inverters
- Realizing reactive compensation of the system, which ensure the power factor of the system is up to standard

Saving & high precision

- Simultaneously monitor the operating data of the 60 X Solis inverter, saving the cost of the monitoring system
- The control accuracy is up to 3%, which improves the system's spontaneous use rate

Friendly & compatible

- Supports simultaneous access of Solis inverters with different powers
- Monitor power generation and load consumption at all times

DATASHEET

Models	Solis-EPM1-5G	Solis-EPM3-5G	Solis-EPM3-5G-PRO
Input AC			
Rated voltage	230 V, 1/N/PE	400 V, 3/N/PE or 3/PE	
Input voltage range	100~ 300 V (L-N)	175~ 650 V (L-L)	
Input frequency range	45~65 Hz		
Communication			
Inverter communication	Modbus		
Communication with inverter	RS485 (Wired)		
Max. communication inverter numbers	10	60 ⁽¹⁾	
Max. communication distance	1000 m		
Monitoring	S3-GPRS-ST/ S3-WiFi-ST (optional)		
General Data			
Ambient temperature	-25 ~ +60°C		
Relative humidity	5%~95%		
Ingress protection	IP65		
Self-consumption	<5 W		
Dimensions (W*H*D)	364*276*114 mm		
Weight	2.1 kg (without CT, Meter)		
AC connection	Quick connection terminal		
Display	LCD		
Smart meter	No		Yes
CT connection	Plug terminal		
CT specification	Optional (Secondary current is 5A)		
Features			
Failsafe fuction	Yes		
Remote upgrated	Yes		
PF adjustment	No		Yes
Control time	5 s		

CT specification

The image contains two technical drawings of a CT (Current Transformer). The left drawing is a front view showing a rectangular core with a central window. It has four terminals on the sides and two on the top. Dimensions labeled include 'W' for the overall width, 'H' for the overall height, 'D' for the core thickness, 'a' for the inner window width, and 'e' for the terminal spacing. The right drawing is a side view showing the profile of the CT, with dimensions 'W', 'H', and 'D' labeled. The top view shows a rectangular core with a central window, with dimensions 'W', 'H', 'D', 'a', and 'e' labeled.

Specification	Dimensions (mm)			Hole size (mm)		Ratio
	W	H	D	a	e	
CT-30×20-100 A	90	114	40	22	32	100:5 A
CT-60×40-300 A	114	140	36	42	62	300:5 A
CT-80×40-600 A	122	162	40	42	82	600:5 A
CT-80×40-1000 A	122	162	40	42	82	1000:5 A
CT-160×80-2000 A	184	254	52	82	162	2000:5 A
CT-160×80-3000 A	184	254	52	82	162	3000:5 A

(1) The installed capacity of the inverter cannot exceed 5MW.

SolisCloud: Intelligent Solar Energy System Monitoring

>> The SolisCloud intelligent monitoring system includes hardware and software products, and is a comprehensive energy management solution.

Rich hardware products, including data stick, data box, EPM and PLC, etc; transmit to SolisCloud platform through remote data channel to realize online energy management; real-time monitoring, visualized management and remote O&M of residential, C&I, utility PV plants.

>> S3-GPRS/WiFi-ST



S3-GPRS-ST

S3-WiFi-ST

>> S4-WiFi-ST



S4-WiFi-ST

>> Solis PLC CCO



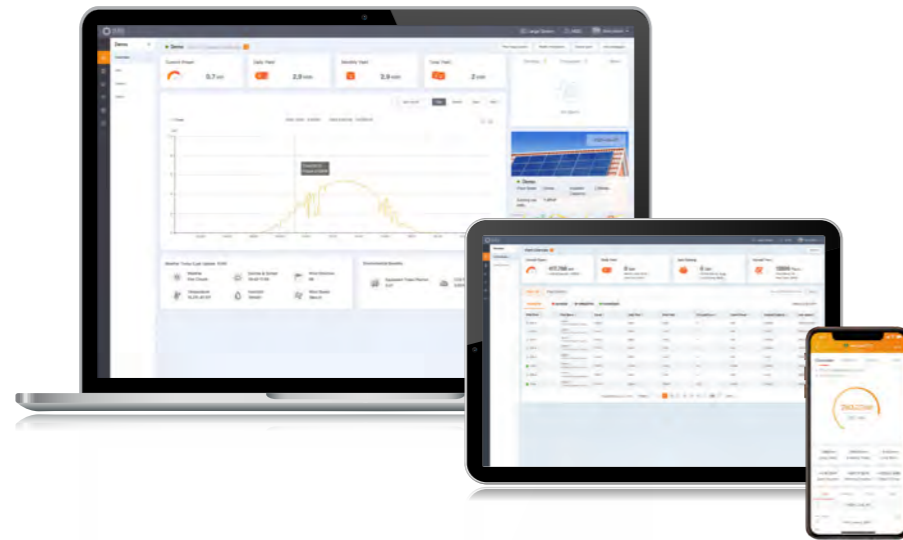
PLC CCO



1500V PLC CCO

SolisCloud

New generation Solis PV monitoring platform



>> SolisCloud is the new generation of intelligent PV system monitoring. This new monitoring platform will empower you like never before. You will have full control of your system whenever and wherever you are. You will benefit from upgraded accurate fault alarm messaging that is adjustable to notify you within hours that fit meet your needs.

For simple O&M the new platform features a full size display of all your installations with real-time data. You will have an intelligent alarm system that gives recommendations to quickly repair your field faults. In depth analysis tools allow you to understand the overall health of your system. IV curve scanning can be done easily and quickly on your whole system. A live power flow display gives visibility of both standard solar systems as well as storage systems. Most importantly you will have complete control of your systems and be able to monitor and adapt anything when and how you want.

Advanced Cloud Platform

- Connecting with multiple types of devices seamlessly, Inverters, export power managers, weather stations etc.

Efficient O & M

- Smart I-V curve scan, system health report, string-level fault finding

Multiple Plant Management

- Manage multiple types of systems across residential, commercial and utility scale plants. Enables multiple team management across different sectors

Full Screen Display Mode

- Clear and concise display of system performance and benefits including carbon emissions saved and equivalent trees planted as well as showing system yield & earnings

>> Accessories available:

S3-GPRS/WiFi-ST
Solis PLC CCO
S4-WiFi-ST



S3-GPRS/WiFi-ST

Accessories - Solis Data Logging Stick

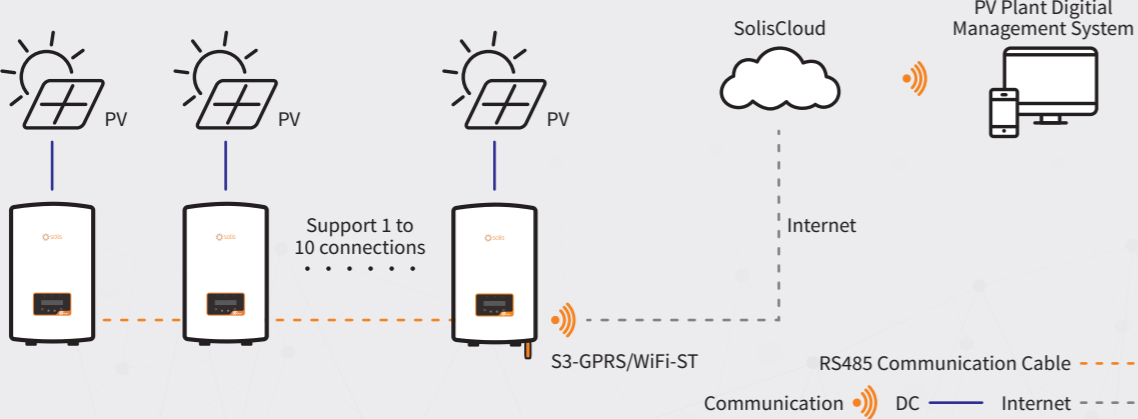
>> Use RS485 communication method to connect the inverter, and data connection through wireless WiFi network or GPRS, which can realize remote control and monitoring. The network transmits intuitive data, which is convenient for customers to monitor at any time and place.



Features:

- Fault alarm, real-time monitoring
 - Status indicator, easy to display working status
- Plug and play, convenient and fast
 - RESET button, one key to send data, convenient debugging

Intelligent Monitoring Solution - S3-GPRS/WiFi-ST



DATASHEET

Models	S3-GPRS-ST		S3-WiFi-ST
Communication			
Supported device type	Solis inverter		
Number of connected inverters ⁽¹⁾	≤10		
Data collection intervals	5 minutes		
Status indicator	LED × 3		
Communication interface	4 Pin		
Wireless communication	850/900/1800/1900 MHz	802.11b/g/n (2.4G—2.483G)	
Configuration method	APP/WEB		
Electrical			
Operating voltage	DC 5V(+/-5%)		
Operating power consumption	≤5 W		
Environment			
Operating temperature	-30 ~ +65°C		
Operating humidity	5%-95%, relative humidity, no condensa		
Storage temperature	-40 ~ +70°C		
Storage humidity	< 40%		
Operating altitude	≤4000 m		
Protection degree	IP65		
Mechanical			
Dimensions (L*W*H)	133*45*41 mm	128*50*34 mm	
Installation method	Insert+Screw		
Weight	84 g	80 g	
Others			
Certification	CE	CE, FCC	

(1) Connect the inverters by RS485 cables.

S4-WiFi-ST

Accessories - Solis Data Logging Stick

>> Use RS485 communication method to connect the inverters, up to 10 inverters can be connected at the same time. Data communication with the monitoring system through wireless WiFi network, which can realize remote control and monitoring. The network transmits intuitive data, which is convenient for customers to monitor anytime and anywhere.

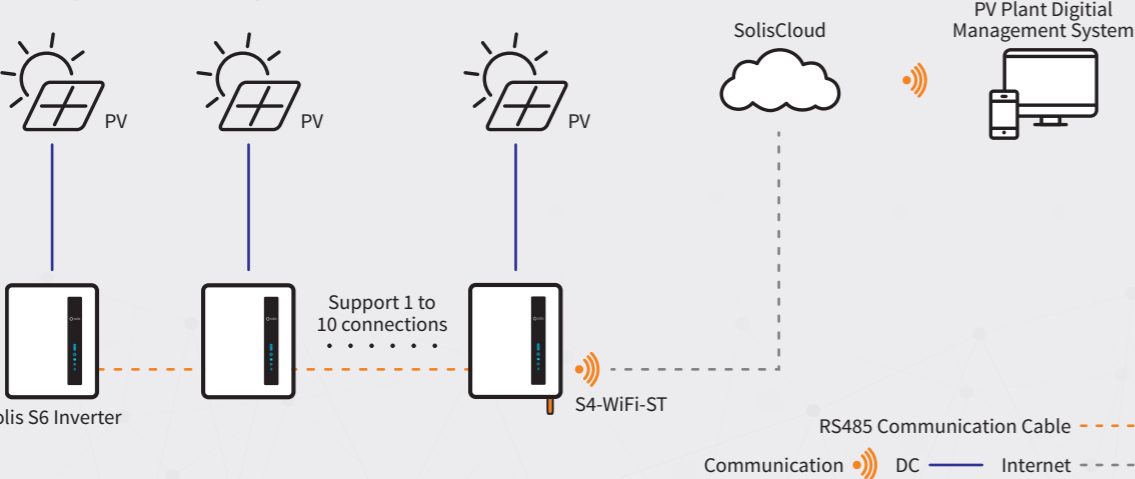


S4-WiFi-ST

Features:

- Fault alarm, real-time monitoring
 - Status indicator, easy to display working status
- Plug and play, convenient and fast
 - RESET button, one key to send data, convenient debugging

Intelligent Monitoring Solution - S4-WiFi-ST



DATASHEET

Models

Communication

Supported device type	Solis inverter
Number of connected inverters ⁽¹⁾	≤10
Data collection intervals	5 minutes
Status indicator	LED × 3
Communication interface	USB
Wireless communication	802.11b/g/n (2.4G—2.483G)
Configuration method	APP/WEB

Electrical

Operating voltage	DC 5V(+/-5%)
Operating power consumption	≤5 W

Environment

Operating temperature	-30 ~ +65°C
Operating humidity	5%-95%, relative humidity, no condensa
Storage temperature	-40 ~ +70°C
Storage humidity	< 40%
Operating altitude	≤4000 m
Protection degree	IP65

Mechanical

Dimensions (L*W*H)	128*50*34 mm
Installation method	Insert+Screw
Weight	84 g

Others

Certification	CE, FCC
---------------	---------

(1) Connect the inverters by RS485 cables.

Solis PLC CCO

Accessories - Solis Data Logging Stick

>> Solis PLC CCO (CCO: Central Controller) is applied in PV systems to achieve power line communication. Power Line Communication is transmission of data over the AC Wires of the system.



PLC CCO



1500V PLC CCO

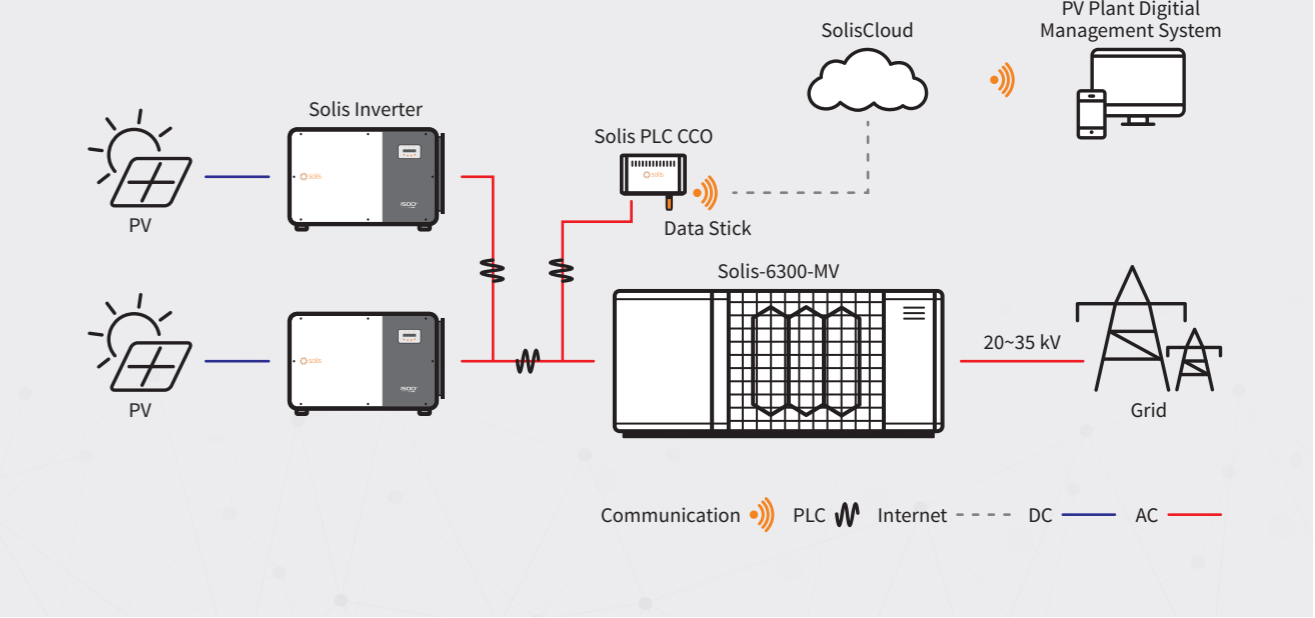
Features:

- No need to lay communication cables, reducing construction costs and maintenance costs
- Strong anti-interference ability
- Support multi-terminal networking
- Stable network connection, real-time data transmission

DATASHEET

Models	PLC CCO		1500V PLC CCO
Electrical			
Power supply	100 V ~ 240 V AC, 50 Hz / 60 Hz		
Power consumption	<5 W		
AC port line voltage range	0 ~ 621 V AC	0 ~ 920 V AC	
Environment			
Operating temperature range	-25 ~ +70°C		
Relative humidity (non-condensing)	5% ~ 95%		
Max. operating altitude	4000 m		
Communication			
Max. number of connected inverters	80	60	
Max. transmission rate	9600 bit/s		
Mechanical			
Dimensions (L*W*H)	180*120*45 mm	255*165*45 mm	
Weight	325 g	485 g	
Protection degree	TYPE 1		
Installation method	Hanging installation or Din Rail installation	Hanging installation	

Utility Scale Solar PV Solution



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