

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

# Solis Three Phase High Voltage Energy Storage Inverters

### Features:

- 4 MPPTs, 8 strings at 20A, and up to 96kW usable PV input
- 140A/70A+70A max charge/discharge on two independently controlled ports
- Supports 1.6 times rated output for 2 seconds on the backup port
- Supports parallel operation of up to 6 units for on and off-grid use
- Operates as a grid-tied inverter without batteries when on-grid
- Multi-input generator connectivity with automatic on/off control
- Supports peak shaving control in both "self-use" and "generator" mode

### Models:

S6-EH3P30K-H-LV

S6-EH3P29.9K-H / S6-EH3P30K-H

S6-EH3P40K-H / S6-EH3P50K-H



# DATASHEET

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

Models	30K-LV	29.9K	30K	40K	50K
<b>Input DC (PV side)</b>					
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		
<b>Battery</b>					
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 <sup>(1)</sup>				
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				
<b>Output AC (Grid side)</b>					
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%				
<b>Input AC (Grid side)</b>					
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				
<b>Input Generator</b>					
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				
<b>Output AC (Back-up)</b>					
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%				
<b>Efficiency</b>					
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%				
<b>Protection</b>					
Anti-islanding protection	Yes				
Output over current protection	Yes				
Short circuit protection	Yes				
Integrated DC switch	Optional				
DC reverse-polarity protection	Yes				
Surge protection	DC Type II / AC Type II				
Integrated AFCI (DC arc-fault circuit protection)	Yes <sup>(2)</sup>				
<b>General Data</b>					
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				
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4				
<b>Features</b>					
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				

(1) Supporting parallel 140A input. (2) Activation required.



# Commercial & Industrial Solar PV Solutions

Solis industrial and commercial string inverter product line is rich, the power range covers 15kW - 125kW, 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 125kW. High-efficiency and high-power-density inverters can reduce installation and maintenance workloads and improve overall cost efficiency.

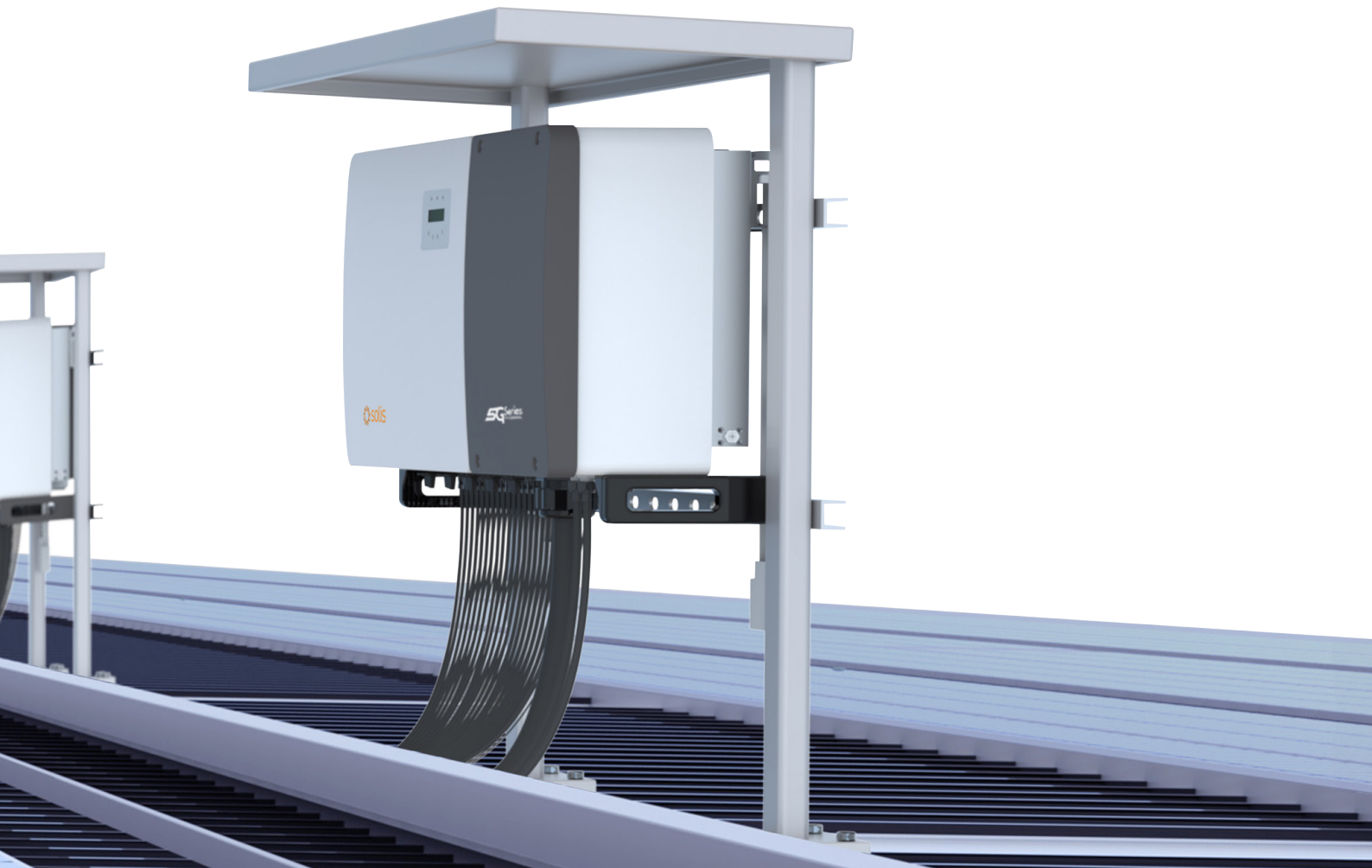
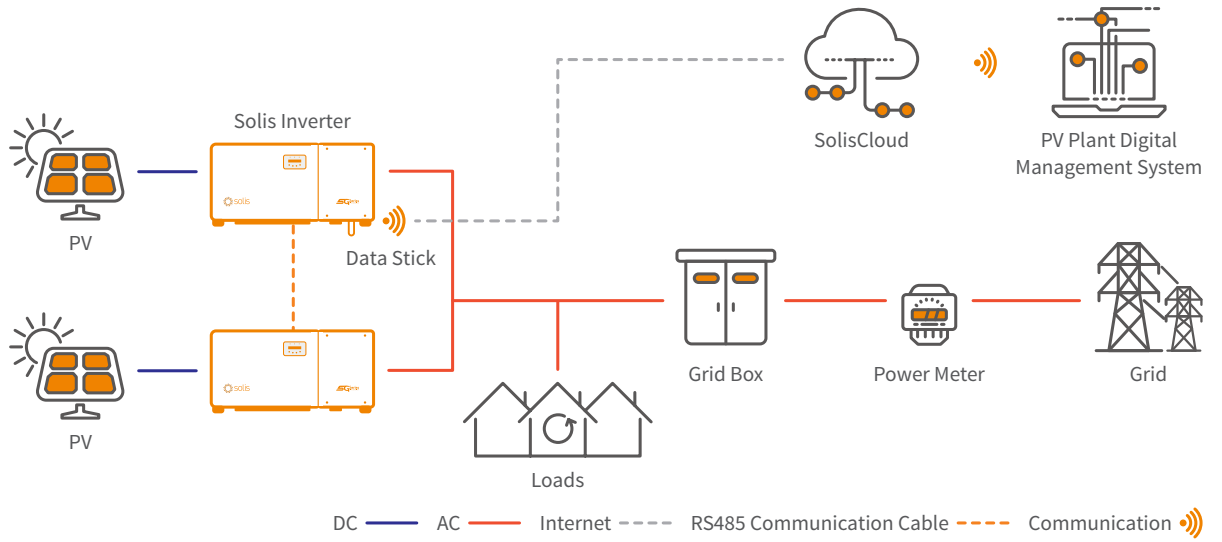
Solis' C&I solutions are supplemented by a series of advanced digital services based on SolisCloud, simplifying the application difficulty of intelligent systems, and providing you with more complete, high-quality and efficient cloud intelligent operation and maintenance solutions.

**Models:** S5-GC(15-23)K-LV / S5-GC(25-36)K-LV  
 S5-GC(25-50)K / S5-GC(50-60)K  
 Solis-(50-60)K-LV-5G / S5-GC(50-60)K-LV  
 Solis-(50-75)K-LV-5G-PRO / S6-GC(50-75)K-LV  
 Solis-(80-110)K-5G / S5-GC(80-110)K  
 Solis-(80-110)K-5G-PRO / S6-GC(80-125)K  
 Solis-(100-125)K-5G / S5-GC(100-125)K

**Output:** 15 kW - 125 kW



## Commercial & Industrial Solar PV Solution



## S5-GC(15-23)K-LV

# Solis Three Phase Grid-Tied Inverters

### Efficient

- Max. efficiency 97.8%
- String current up to 16A
- 3 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)
- Wide voltage range and low startup voltage

### 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

### Safe

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

### Economic

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

### Models:

S5-GC15K-LV

S5-GC20K-LV

S5-GC23K-LV



360° View

## DATASHEET

## S5-GC(15-23)K-LV

Models	15K	20K	23K
<b>Input DC</b>			
Recommended max. PV power	22.5 kW	30 kW	34.5 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		
Max. short circuit current	40 A / 40 A / 40 A		
MPPT number/Max. input strings number	3/6		
<b>Output AC</b>			
Rated output power	15 kW	20 kW	23 kW
Max. apparent output power	16.5 kVA	22 kVA	25 kVA
Max. output power	16.5 kW	22 kW	25 kW
Rated grid voltage	3/PE, 220 V		
Rated grid frequency	50 Hz / 60 Hz		
Rated grid output current	39.4 A	52.5 A	60.4 A
Max. output current	43.3 A	57.7 A	65 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)		
THDi	<3%		
<b>Efficiency</b>			
Max. efficiency	97.8%		
EU efficiency	97.3%		
<b>Protection</b>			
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 <sup>(1)</sup>		
Integrated PID recovery	Optional		
Integrated DC switch	Optional		
<b>General Data</b>			
Dimensions (W*H*D)	647*629*252 mm		
Weight	38.2 kg		42.1 kg
Topology	Transformerless		
Self-consumption (night)	<1 W		
Operating ambient temperature range	-25 ~ +60°C		
Relative humidity	0-100%		
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, 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, IEC60068, IEC 61683, EN 50530		
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4		
<b>Features</b>			
DC connection	MC4 connector		
AC connection	OT terminal		
Display	LCD		
Communication	RS485, Optional: Wi-Fi, GPRS		

(1) Activation required.

## S5-GC(25-36)K-LV

# Solis Three Phase Grid-Tied Inverters

### Efficient

- Max. efficiency 98.4%
- String current up to 16A
- 4 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
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life

### Economic

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- DC side supports "Y" connector
- 8 string inputs allow for 150%+ DC oversizing

### Models:

S5-GC25K-LV

S5-GC30K-LV

S5-GC36K-LV



360° View

## DATASHEET

## S5-GC(25-36)K-LV

Models	25K	30K	36K
<b>Input DC</b>			
Max. input voltage		1100 V	
Rated voltage		360 V	
Start-up voltage		195 V	
MPPT voltage range		180-1000 V	
Max. input current		4*32 A	
Max. short circuit current		4*40 A	
MPPT number/Max. input strings number		4/8	
<b>Output AC</b>			
Rated output power	25 kW	30 kW	36 kW
Max. apparent output power	27.5 kVA	33 kVA	36 kVA
Max. output power	27.5 kW	33 kW	36 kW
Rated grid voltage	3/(N)/PE, 220 V		
Rated grid frequency	50 Hz / 60 Hz		
Rated grid output current	65.6 A	78.7 A	94.5 A
Max. output current	72.2 A	86.6 A	94.5 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)		
THDi	<3%		
<b>Efficiency</b>			
Max. efficiency	98.4%		
EU efficiency	98.0%		
<b>Protection</b>			
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 <sup>(1)</sup>		
Integrated PID recovery	Optional <sup>(2)</sup>		
Integrated DC switch	Optional		
<b>General Data</b>			
Dimensions (W*H*D)	691*578*338 mm		
Weight	53.7 kg		
Topology	Transformerless		
Self-consumption (night)	<1 W		
Operating ambient temperature range	-25 ~ +60°C		
Relative humidity	0-100%		
Ingress protection	IP66		
Cooling concept	Intelligent redundant fan-cooling		
Max. operation altitude	4000 m		
Grid connection standard	UL 1741, IEEE 1547, NBR 16149, NBR 16150, C10-11, REN 342		
Safety/EMC standard	IEC 62109-1/-2, IEC62116 & IEC 61000-6-1/-2/-3/-4		
<b>Features</b>			
DC connection	MC4 connector		
AC connection	OT terminal (max. 70 mm <sup>2</sup> )		
Display	LCD, Capacitive touch buttons		
Communication	RS485, USB, Optional: Wi-Fi, GPRS		

(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.



## S5-GC(25-50)K

# Solis Three Phase Grid-Tied Inverters

### 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

### 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

### Safe

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

### Economic

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

### Models:

S5-GC25K / S5-GC30K

S5-GC33K / S5-GC36K

S5-GC40K / S5-GC40K-HV

S5-GC50K-HV



360° View

## DATASHEET

## S5-GC(25-50)K

Models	25K	30K	33K	36K	40K	40K-HV	50K-HV
<b>Input DC</b>							
Recommended max. PV power	37.5 kW	45 kW	49.5 kW	54 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			
<b>Output AC</b>							
Rated output power	25 kW	30 kW	33 kW	36 kW	40 kW	40 kW	50 kW
Max. apparent output power	27.5 kVA	33 kVA	36.3 kVA	39.6 kVA	44 kVA	44 kVA	55 kVA
Max. output power	27.5 kW	33 kW	36.3 kW	39.6 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	54.7 A / 52.0 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	60.2 A	66.9 A	53.0 A	66.2 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)						
THDi	<3%						
<b>Efficiency</b>							
Max. efficiency	98.5%		98.6%	98.7%		98.8%	
EU efficiency	98.1%		98.2%	98.3%		98.4%	
<b>Protection</b>							
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 <sup>(1)</sup>			
Integrated PID recovery				Optional			
Integrated DC switch				Optional			
<b>General Data</b>							
Dimensions (W*H*D)	647*629*252 mm						
Weight	38.2 kg			42.1 kg			
Topology	Transformerless						
Self-consumption (night)	<1 W						
Operating ambient temperature range	-25 ~ +60°C						
Relative humidity	0-100%						
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, 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, IEC60068, IEC 61683, EN 50530						
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4						
<b>Features</b>							
DC connection	MC4 connector						
AC connection	OT terminal						
Display	LCD						
Communication	RS485, Optional: Wi-Fi, GPRS						

(1) Activation required.

## S5-GC(50-60)K

# Solis Three Phase Grid-Tied Inverters

### 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
- 10/12 string inputs allow for 150%+ DC oversizing

### Models:

S5-GC50K / S5-GC60K



360° View