

# S5-GR3P(5-20)K

## Solis Three Phase Inverters



360 degree

### Model:

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

#### 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

Model Name	S5-GR3P5K	S5-GR3P6K	S5-GR3P8K	S5-GR3P10K	S5-GR3P12K	S5-GR3P13K	S5-GR3P15K	S5-GR3P17K	S5-GR3P20K
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### 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% I <sub>n</sub>								

### 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 <sup>(1)</sup>
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

(1) Activation required.