

S5-GR3P(5-20)K

Solis Three Phase Grid-Tied Inverters

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

Models:

S5-GR3P5K / S5-GR3P6K

S5-GR3P8K / S5-GR3P10K

S5-GR3P12K / S5-GR3P13K

S5-GR3P15K / S5-GR3P17K

S5-GR3P20K



360° View



DATASHEET

S5-GR3P(5-20)K

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% I _n								
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								
Insulation resistance monitoring	Yes								
Residual current detection	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	16.9 kg		17.9 kg		19.6 kg		20.8 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: S3-WiFi-ST, S3-GRPS-ST								

(1) Activation required.