

S5-GR3P(5-20)K

Solis Three Phase Grid-Tied Inverters

Features:

- Max. efficiency 98.7%
- > 150% DC/AC ratio
- Supports export power control
- AFCI protection, proactively reduces fire risk
- 24-hour load consumption monitoring
- Adaptive weak grid
- IP66

Models:

S5-GR3P5K / S5-GR3P6K

S5-GR3P8K / S5-GR3P10K

S5-GR3P12K / S5-GR3P13K

S5-GR3P15K / S5-GR3P17K

S5-GR3P20K



360° View



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% 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				
Insulation resistance monitoring					Yes				
Residual current detection					Yes				
Surge protection					Yes				
Grid monitoring					Yes				
Anti-islanding protection					Yes				
Temperature protection					Yes				
Multi peak scan					Yes				
Integrated AFCI 2.0					Optional				
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 cooling				Intelligent 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								