

S5-GC(50-60)K

Solis Three Phase Grid-Tied Inverters

Features:

- 5/6 MPPT, max. efficiency 98.7%
- Nighttime PID recovery function (optional)
- AFCI protection, proactively reduces fire risk
- Intelligent string monitoring, smart I-V curve scan
- 24-hour load consumption monitoring
- IP66, C5 Anti-Corrosion level
- Night SVG function

Models:

S5-GC50K / S5-GC60K



360° View

DATASHEET

S5-GC(50-60)K

Models	50K	60K
Input DC		
Recommended max. PV power	75 kW	90 kW
Max. input voltage	1100 V	
Rated voltage	600 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
Max. apparent output power	55 kVA	66 kVA
Max. output power	55 kW	66 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	76.0 A / 72.2 A	91.2 A / 86.6 A
Max. output current	83.6 A	100.3 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)	
THDi	< 3%	
DC injection current	< 0.5% I _n	
Efficiency		
Max. efficiency	98.7%	
EU efficiency	98.3%	
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	DC Type II / AC Type II	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Strings monitoring	Yes	
I/V Curve scanning	Yes	
Multi peak scan	Yes	
Integrated AFCI 2.0	Optional	
Integrated PID recovery	Optional ⁽¹⁾	
Integrated DC switch	Yes	
General Data		
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	
Noise emission (typical)	< 55 dB(A)	
Cooling concept	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	OT terminal (max. 70 mm ²)	
Display	LCD	
Communication	RS485, USB, Optional: S3-WiFi-ST, S3-GRPS-ST	

(1) 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.