

S5-GC(50-60)K-LV

Solis Three Phase Grid-Tied Inverters

Efficient

- 6/8 MPPTs, max. efficiency 98.5%
- > 170% DC/AC ratio
- High power tracking density 130MPPT/MW
- String current up to 16A, perfectly match large current bifacial modules

Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Safe

- AFCI protection, proactively reduces fire risk
- Built-in PID recovery for better module performance (optional)
- Overvoltage load reduction and leakage current suppression technology, low failure rate
- Globally recognised branded componentry for longer life

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector

Models:

S5-GC50K-LV

S5-GC60K-LV



DATASHEET
S5-GC(50-60)K-LV

Models	50K	60K
Input DC		
Max. input voltage	1100 V	
Rated voltage	450 V	
Start-up voltage	195 V	
MPPT voltage range	180 - 1000 V	
Max. input current	6 × 32 A	8 × 32 A
Max. short circuit current	6 × 40 A	8 × 40 A
MPPT number / Max. input strings number	6 / 12	8 / 16
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	
Rated grid frequency	50 Hz / 60 Hz	
Rated grid output current	131.2 A	157.5 A
Max. output current	144.3 A	173.2 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)	
THDi	< 3%	
Efficiency		
Max. efficiency	98.5%	
EU efficiency	98.1%	
Protection		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	DC Type II / AC Type II (AC Type I optional)	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Strings monitoring	Yes	
I/V Curve scanning	Yes	
Integrated AFCI 2.0	Optional	
Integrated PID recovery	Optional	
Integrated DC switch	Yes	
Integrated AC switch	Optional	
General Data		
Dimensions (W × H × D)	1065 × 567 × 344.5 mm	
Weight	89 kg	
Topology	Transformerless	
Self-consumption (night)	< 2 W	
Operating ambient temperature range	-30 ~ +60°C	
Relative humidity	0 - 100%	
Ingress protection	IP66	
Cooling concept	Intelligent fan-cooling	
Max. operation altitude	4000 m	
Grid connection standard	IEC 61727, IEC 62116, C10/11, VDE 4105, VDE-AR-N 4110, IEEE 1547	
Safety / EMC standard	IEC62109-1/-2, EN61000-6-1/-2/-3/-4, UL1741	
Features		
DC connection	MC4 connector	
AC connection	OT terminal (max. 185 mm ²)	
Display	LCD	
Communication	RS485, Optional: Wi-Fi, GPRS, PLC	