solis

S5-GC(50-70)K

Solis Three Phase Inverters

Model:

400V: S5-GC50K S5-GC60K **480V:** S5-GC60K-HV S5-GC70K-HV

Efficient

- Max. efficiency 98.7%
- String current up to **16A**
- 5/6 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)

Safe

- IP66, C5 Anti-Corrosion Level
- Intelligent redundant fan-cooling
- Globally recognised branded componentry for longer life
- AFCI protection, proactively reduces fire risk

Smart

- Night time SVG function
- Supports export power control
- Intelligent string monitoring. Smart I-V curve scan
- Scan to register on SolisCloud, supports remote upgrade and control

Economic

- Supports PLC/GPRS/WiFi communication with less wiring and reduced installation costs
- DC side supports "Y" connectors
- Supports aluminium wire access to reduce cost
- 10/12 string inputs allow for 150%+ DC oversizing

Datasheet

Model Name	S5-GC50K	S5-GC60K	S5-GC60K-HV	S5-GC70K-HV
Input DC				
Max. input voltage	1100 V			
Rated voltage	600 V		720 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*50 A	6*50 A		
MPPT number/Max. input strings number	5/10	6/12		
Output AC				
Rated output power	50 kW	60 kW	60 kW	70 kW
Max. apparent output power	55 kVA	66 kVA	66 kVA	77 kVA
Max. output power	55 kW	66 kW	66 kW	77 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V		3/PE, 480 V	
Rated grid frequency	50 Hz / 60 Hz			
Rated grid current	76.0 A / 72.2 A	91.2 A / 86.6 A	72.2 A	84.2 A
Max. output current	83.6 A	100.3 A	79.4 A	92.6 A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<3%			
Efficiency				
Max. efficiency	98.7%			
EU efficiency	98.3%		98.4%	
Protection				
DC reverse-polarity protection	Yes			
Short circuit protection	Yes			
Output over current protection	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			
Integrated AFCI (DC arc-fault circuit protection)	Yes (1)			
Integrated PID recovery	Optional (2)			
Intergarated DC switch	Optional			
General Data				
Dimensions (W*H*D)	691*578*338 mm			
Weight	54.5 kg			
Topology	Transformerless			
Self consumption (night)	<1 W			
Operating ambient temperature range	-25 ~ +60°C			
Relative humidity	0-100%			
Ingress protection	IP66			
Cooling concept	Intelligent redundant fan-cooling			
Max. operation altitude	4000 m			
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, NTS 631, UNE 206006, UNE 206007-1, IEC61727, DEWA			
Safety/EMC standard	IEC 62109-1/-2, IEC62116 & IEC 61000-6-1/-2/-3/-4			
Features				
DC connection	MC4 connector			
AC connection	OT terminal (max. 70 mm^2)			
Display	LCD, Capacitive touch buttons			
Communication	RS485, USB, Optional: Wi-Fi, GPRS, PLC (3)			

(1) Activation required.

(2) 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.

(3) The PLC communication can not work with RS485 communication at the same time. If already installed the PLC CCO for PLC communication on site, then the RS485 ports on the inverters can not be used to connect another monitoring/control device.