

S5-GC(50)K

Solis Three Phase Inverters

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)

Smart

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

Safe

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

Economic

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- DC side supports "Y" connector
- 10/12 string inputs allow for 150%+ DC oversizing



360° View

DATASHEET

S5-GC(50)K

Models	50K
Input DC	
Recommended max. PV power	75 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
Max. short circuit current	5*40 A
MPPT number/Max. input strings number	5/10
Output AC	
Rated output power	50 kW
Max. apparent output power	55 kVA
Max. output power	55 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
Max. output current	83.6 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%
DC injection current	<0.5% In
Efficiency	
Max. efficiency	98.7%
EU efficiency	98.3%
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⁾
Integrated DC switch	Yes
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
Noise emission (typical)	<55 dB(A)
Cooling concept	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	OT terminal (max. 70 mm ²)
Display	LCD, Capacitive touch buttons
Communication	RS485, USB, Optional: S3-WiFi-ST, S3-GRPS-ST

(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.