

Residential String Inverter



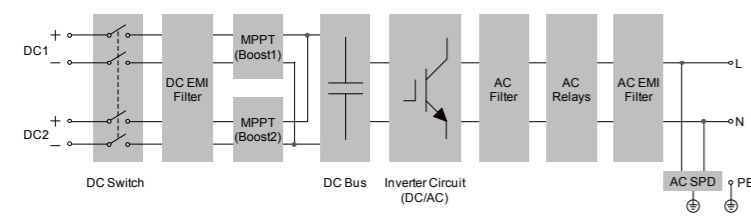
- HIGH YIELD**
- Industry leading efficiency of 98.4%
 - Flexible PV string configurations
 - High DC/AC ratio up to 1.3

- SMART MANAGEMENT**
- Feature-rich online monitoring via App or Web
 - Firmware updates & new monitoring features
 - Gain energy flow with Sungrow smart meter

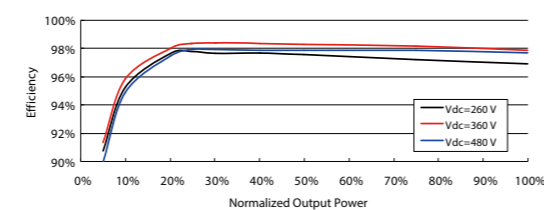
- SAFE AND RELIABLE**
- Built-in surge arresters & RCD
 - Cutting-edge technology ensures long life time
 - High anti-corrosion rating at C5

- EASY INSTALLATION**
- Unique push-in connectors for time-saving installation
 - Mounting plate with built-in level
 - Fast and easy commissioning via App or LCD

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG3K-D	SG3K6-D	SG4K-D	SG4K6-D	SG5K-D	SG6K-D
Input (DC)						
Max. PV input voltage			600 V			
Min. PV input voltage / Startup voltage			90 / 120 V			
Nominal input voltage			360 V			
MPP voltage range			90 V – 560 V			
MPP voltage range for nominal power	160 V – 480 V	190 V – 480 V	210 V – 480 V	240 V – 480 V	260 V – 480 V	315 V – 480 V
No. of MPPTs			2			
Max. number of PV strings per MPPT			1			
Max. PV input current			20 A (10 A / 10 A)			
Max. current for input connector			24 A (12 A / 12 A)			
Max. PV short-circuit current			24 A (12 A / 12 A)			
Output (AC)						
Max. AC output power	3000 VA	3680 VA	4000 VA	4600 VA	5000 VA	6000 VA
Max. AC output current	13.7 A	16 A	18.2 A	21 A	22.7 A	27.3 A
Nominal AC voltage			230 Vac			
AC voltage range			180 – 276 Vac			
Nominal grid frequency			50 Hz / 60 Hz			
Grid frequency range			45 Hz – 55 Hz / 55 Hz – 65 Hz			
Total Harmonic Distortion (THD)			< 3 % (of nominal power)			
DC current injection			< 0.5 % (of nominal current)			
Power factor			> 0.99 / 0.8 leading – 0.8 lagging			
Feed-in phases / Connection phases			1 / 1			
Efficiency						
Max. efficiency			98.4 %			
Max. European efficiency	97.7 %	97.7 %	98.0 %	98.0 %	98.0 %	98.0 %
Protection						
PV reverse connection protection			Yes			
AC short circuit protection			Yes			
Leakage current protection			Yes			
Grid monitoring			Yes			
PV string current monitoring			Yes			
DC switch			Yes*			
Overvoltage protection			AC Type II			
General Data						
Dimensions (W*H*D)			360*390*133 mm			
Weight			11.5 kg			
Isolation method			Transformerless			
Ingress protection rating			IP65			
Night power consumption			< 1 W**			
Operating ambient temperature range			-25 °C to 60 °C (>45 °C derating)			
Allowable relative humidity			0 – 100 %			
Cooling method			Natural cooling			
Max. operating altitude			4000 m (> 2000 m derating)			
Display			LCD			
Communication			Wifi / Ethernet (optional)			
DC connection type			MC4 (Max. 6 mm ²)			
AC connection type			Plug and play connector (max. 6 mm ²)			
Compliance			IEC62109-1, IEC62109-2, IEC62116, IEC61727, EN 61000-6-2, EN 61000-6-3, VDE-AR-N-4105, CEI 0-21, VDE0126-1-1, UTE C15-712, VFR-2014, EN50438, C10/11, G83/2, G59/3			
Type designation	SG3K-D	SG3K6-D	SG4K-D	SG4K6-D	SG5K-D	SG6K-D

*: Devices for Australia are not equipped with DC switches

**Deluxe Version: < 3W (DC & AC power supply)