

SG3K-D/SG4K-D/SG5K-D/SG6K-D

Residential String Inverter



High Yield

- Higher yield with max. efficiency 98.4 %, European efficiency 98.0 %
- Flexible PV string configurations, DC/AC ratio up to 1.3



Smart Management

- Easy local and online monitoring via App or Web
- Export power control with Sungrow energy meter



Safe and Durable

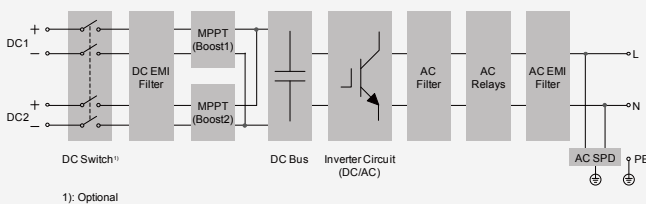
- Built-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting



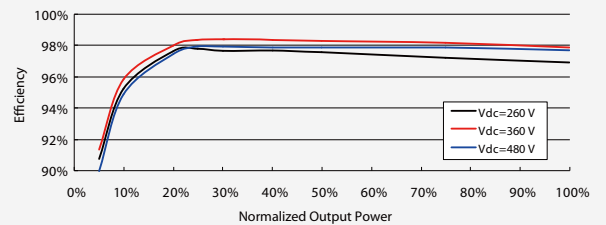
Easy and User Friendly

- 11.5 kg compact design, plug and play installation
- Fast commissioning via LCD

Circuit Diagram



Efficiency Curve



Input (DC)	SG3K-D	SG4K-D	SG5K-D	SG6K-D
Max. PV input voltage	600 V			
Min. PV input voltage / Startup input voltage	90 V / 120 V			
Nominal input voltage	360 V			
MPP voltage range	90 V–560 V			
MPP voltage range for nominal power	160 V–480 V	210 V–480 V	260 V–480 V	315 V–480 V
No. of independent MPP inputs	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)

AC output power	3000 VA	4000 VA	4990 VA ²⁾ / 5000 VA	6000 VA
Max. AC output current	13.7 A	18.2 A	21.7 A ²⁾ / 22.7 A	27.3 A
Nominal AC voltage	220 Vac / 230 Vac			
AC voltage range	176 Vac–276 Vac (this may vary with grid standards)			
Nominal grid frequency	50 Hz / 60 Hz			
Grid frequency range	45 Hz–55 Hz / 55 Hz–65 Hz (this may vary with grid standards)			
Total Harmonic Distortion (THD)	< 3 % (of nominal power)			
DC current injection	< 0.5 % (of nominal current)			
Power factor	> 0.99 at default value at nominal power (adj. 0.8 leading to 0.8 lagging)			
Feed-in phases / Connection phases	1 / 1			

Efficiency

Max. efficiency	98.4 %			
Euro. efficiency	97.7 %	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	Optional
Overvoltage protection	AC Type II

General Data

Dimensions (W*H*D)	360*390*133 mm			
Weight	11.5 kg			
Isolation method	Transformerless			
Degree of protection	IP65			
Power loss in night mode	< 1 W			
Operating ambient temperature range	-25 °C to 60 °C			
Allowable relative humidity range (non-condensing)	0–100 %			
Cooling method	Natural cooling			
Max. operating altitude	4000 m (> 2000 m derating)			
Display / Communication	LCD / Wi-Fi			
PV connection type	MC4 (max. 6 mm ²)			
AC connection type	Plug and play connector (max. 6 mm ²)			
Certification	IEC 61000-6-2, IEC 61000-6-3, AS 4777.2, IEC 62109-1, IEC 62109-2, EN50438, ABNT NBR 16149:2013, ABNT NBR 16150:2013			
Grid support	Active & reactive power control, power ramp rate control			
Type designation	SG3K-D-10	SG4K-D-10	SG5K-D-10	SG6K-D-10

2): When the country of SG5K-D is chosen to Australia

