

SG3K-D/SG5K-D

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

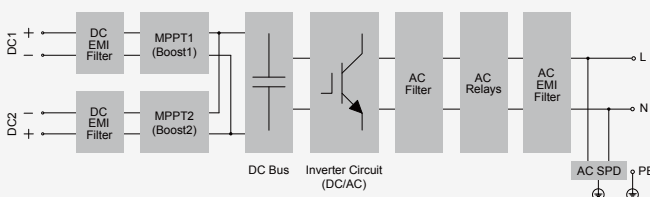
- Build-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting



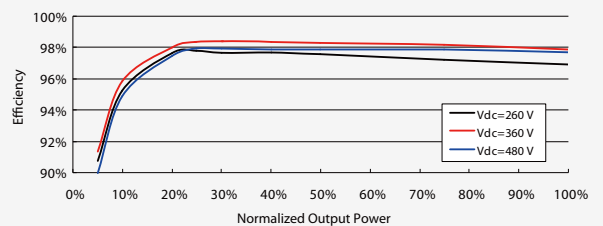
Easy and User Friendly

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

Circuit Diagram



Efficiency Curve



Input (DC)

	SG3K-D	SG5K-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	260 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)

Nominal AC power (at 45 °C)	3000 W	4990 W
Max. AC output at PF=1 (at 45 °C)	3000 W	4990 W
Max. AC apparent power (at 45 °C)	3000 VA	4990 VA
Max. AC output current	13.7 A	21.7 A
Nominal AC voltage	230 Vac	
AC voltage range	180 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 overexcited/leading to 0.8 underexcited/lagging)	
Feed-in phases / Connection phases	1 / 1	

Efficiency

Max. efficiency	98.4 %	
Euro. efficiency	97.7 %	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 III

General Data

Dimensions (W x H x D)	360 mm x 390 mm x 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 (derating when >45°C)
Allowable relative humidity range	0–100 %
Cooling method	Natural cooling
Max. operating altitude	4000 m (derating when >2000 m)
Display / Communication	LCD / Wi-Fi (optional)
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, VDE-AR-N-4105, VDE 0126-1-1, EN50438, NB/T 32004, GB/T29319, CE, CGC, TUV, SAA, ABNT NBR 16149:2013, ABNT NBR 16150:2013
Grid support	Active & reactive power control, power ramp rate control
Type designation	SG3K-D-10 SG5K-D-10

