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

© 2018 Sungrow Power Supply Co., Ltd. All rights reserved.
Subject to change without notice. Version 1.0
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 | 380 V | | | |
MPP voltage range | 90 V–560 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) | 24 A (12 A / 12 A) | | |
Max. current for input connector | 24 A (12 A / 12 A) | | | |
Max. PV short-circuit current | | | | |

Output (AC) | | | | |
--- | --- | --- | --- | ---
AC output power | 3000 VA | 4000 VA | 4990 VA / 5000 VA | 6000 VA
Max. AC output current | 13.7 A | 18.2 A | 21.7 A / 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 % | 98.0 % | 98.0 % | 98.0 %
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 mm²) | | | |
AC connection type | Plug and play connector (max. 6 mm²) | | | |
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