

Residential Single Phase Inverter



HIGH YIELD

- Higher yield with Max. efficiency 98.4 %, European efficiency 98.0 %
- Wide MPPT voltage range

SMART MANAGEMENT

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

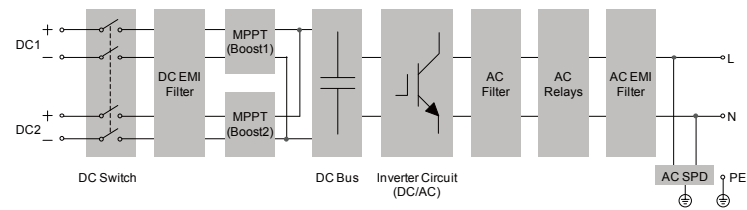
SAFE AND DURABLE

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

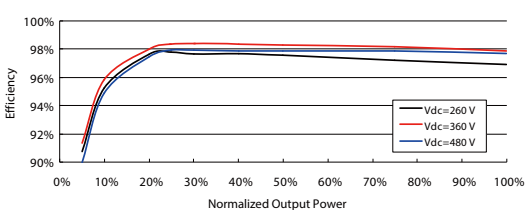
EASY AND USER FRIENDLY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE



| Type designation                             | SG5K-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          | 260 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)                                  |                                                                                                        |
| AC output power                              | 5000 VA                                                                                                |
| Max. AC output current                       | 22.7 A                                                                                                 |
| Nominal AC voltage                           | 220 Vac / 240 Vac                                                                                      |
| AC voltage range                             | 176 Vac – 276 Vac (this may vary with grid standards)                                                  |
| Nominal grid frequency                       | 50Hz / 60 Hz                                                                                           |
| Grid frequency range                         | 45 Hz – 55Hz / 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                     | 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                                                                                                   |
| Power loss in night mode                     | < 1 W                                                                                                  |
| Operating ambient temperature                | -25 °C to 60 °C (> 45 °C derating)                                                                     |
| Allowable relative humidity (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. 6mm2)                                                                                        |
| AC connection type                           | Plug and play connector (Max. 6mm2)                                                                    |
| Compliance                                   | IEC62109-1, IEC62109-2, IEC62116, IEC61727, EN 61000-6-2, EN 61000-6-3, ABNT NBR 16149, ABNT NBR 16150 |
| Grid support                                 | Active & reactive power control, power ramp rate control                                               |
| Type designation                             | SG5K-D                                                                                                 |