

SG8K-D

Residential String Inverter



High Yield

- Higher yield with max. efficiency 98.5 %, 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 smart energy meter



Safe and Durable

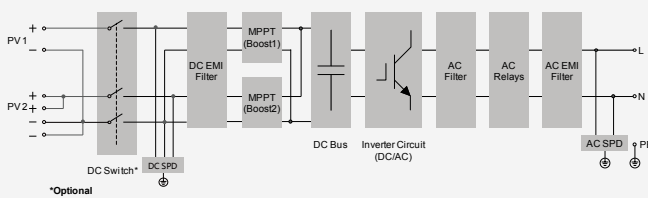
- Built-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting



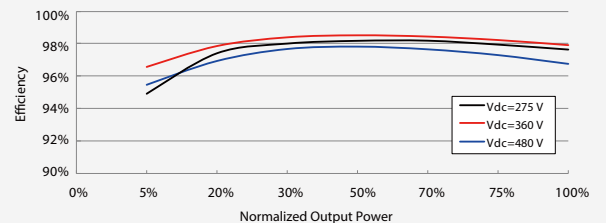
Easy and User Friendly

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

Circuit Diagram



Efficiency Curve



Input (DC)**SG8K-D**

| | |
|--|---------------|
| Max. PV input voltage | 600 V |
| Min PV input voltage / Startup voltage | 90 V / 120 V |
| Nominal input voltage | 360 V |
| MPP voltage range | 90 V – 540 V |
| MPP voltage range for nominal power | 275V – 480 V |
| No. of MPPTs | 2 |
| Max. number of PV strings per MPPT | 1 / 2 |
| Max. PV input current | 12.5 A / 25 A |
| Max. current for input connector | 15 A / 30 A |
| Max. PV short-circuit current | 15 A / 30 A |

Output (AC)

| | |
|------------------------------------|---|
| AC output power | 8000 VA |
| Max. AC output current | 34.8 A |
| Nominal AC voltage | 230 Vac |
| AC voltage range | 180 Vac – 276 Vac (this may vary with grid standards) |
| Nominal grid frequency | 50Hz / 60Hz |
| 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 / 0.8 leading - 0.8 lagging |
| Feed-in phases / Connection phases | 1 / 1 |

Efficiency

| | |
|--------------------------|-------|
| Max. efficiency | 98.5% |
| 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 | Optional |
| Overvoltage protection | DC Type II / AC Type II |

General Data

| | |
|--|--|
| Dimensions (W*H*D) | 360*390*148 mm |
| Weight | 15.5 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. 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, AS4777.2 |
| Grid support | Active & reactive power control, power ramp rate control |
| Type designation | SG8K-D |