

# 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 Sungrow energy meter



### Safe and Durable

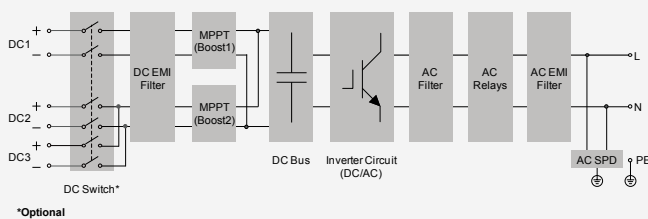
- Built-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting



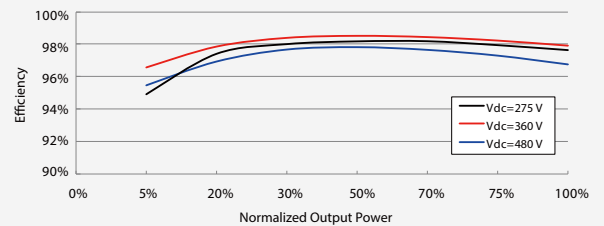
### Easy and User Friendly

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

### Circuit Diagram



### Efficiency Curve



**Input (DC)****SG8K-D**

Max. PV input power	10500 W
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–540 V
MPP voltage range for nominal power	275 V–480 V
No. of independent MPP inputs	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)**

Nominal AC output power	8000 W
Max AC output power (PF=1)	8000 W
Max. AC output apparent power	8000 VA
Max. AC output current	34.8 A
Nominal AC voltage	230 Vac (Single phase)
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 leading to 0.8 lagging)

**Efficiency**

Max. efficiency	98.5 %
Euro. efficiency	98.0 %

**Protection**

Anti-islanding protection	Yes (frequency shift)
PV reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Overvoltage protection	DC II / AC III

**General Data**

Dimensions ( W x H x D)	360 mm x 390 mm x 148 mm
Weight	15.5 kg
Isolation method	Transformerless
Degree of protection	IP65
Power loss in night mode	< 1 W
Operating ambient temperature range	-25 to 60 °C
Allowable relative humidity	0–100 %
Cooling method	Natural cooling
Max. operating altitude	2000 m
Display / Communication	LCD / Wi-Fi (optional)
PV connection type	MC4
AC connection type	Plug and play connector
Certification	IEC61000-6-2, IEC61000-6-3, AS4777.2, IEC62109-1, IEC62109-2

