

# 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

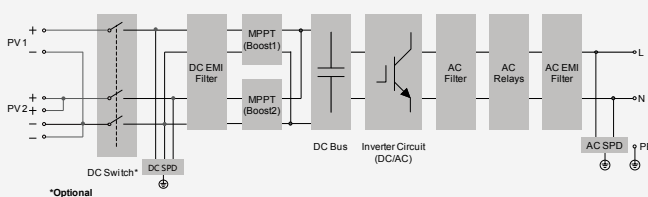
- Built-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting



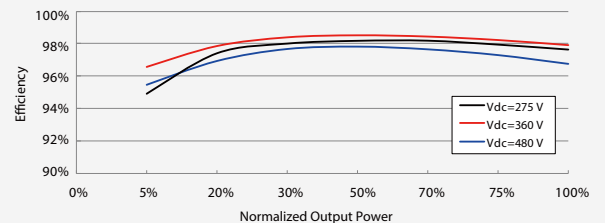
### Easy and User Friendly

- 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 <sup>2</sup> )
AC connection type	Plug and play connector (Max. 6 mm <sup>2</sup> )
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