

Residential Single Phase 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



SAFE AND DURABLE

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



SMART MANAGEMENT

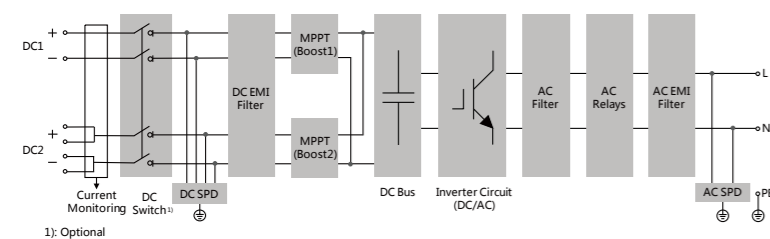
- Easy local and online monitoring via App or Web
- Export power control with smart energy meter



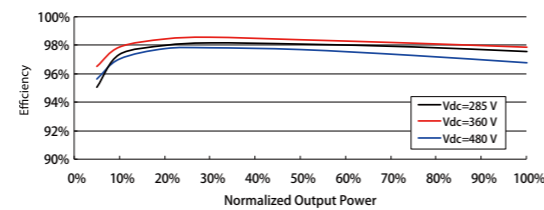
EASY AND USER FRIENDLY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG8K-D
Input (DC)	
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	275 V – 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 / European efficiency	98.5 % / 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 / WiFi
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-10