SG8K-D/SG8K3-D

Residential String Inverter

SUNGROW
Clean power for all

HIGH YIELD

- Industry leading efficiency of 98.5%
- Flexible PV string configurations
- High DC/AC ratio up to 1.3

SMART MANAGEMENT

- Feature-rich online monitoring via App or Web
- Firmware updates & new monitoring features
- Gain energy flow with Sungrow smart meter

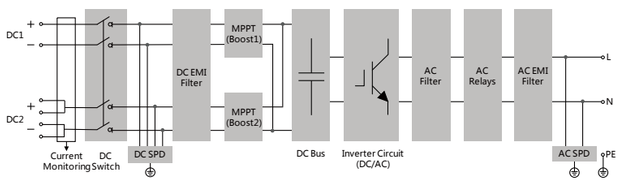
SAFE AND RELIABLE

- Built-in surge arresters & RCD
- Cutting-edge technology ensures long life time
- High anti-corrosion rating at C5

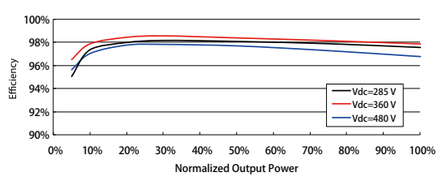
EASY INSTALLATION

- Push-in connectors for time-saving installation
- Mounting plate with built-in level
- Fast and easy commissioning via App or LCD

CIRCUIT DIAGRAM (SG8K3-D)



EFFICIENCY CURVE (SG8K3-D)



Type designation	SG8K-D	SG8K3-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	285 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	15 A
Max. PV short-circuit current	15 A / 30 A	
Output (AC)		
AC output power	8000 VA	8300 VA
Max. AC output current	34.8 A	36.1 A
Nominal AC voltage	230 Vac	220 Vac / 240 Vac
AC voltage range	180 Vac – 276 Vac (this may vary with grid standards)	176 Vac – 276 Vac (this may vary with grid standards)
Nominal grid frequency	50Hz / 60Hz	60 Hz
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz (this may vary with grid standard s)	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	Yes*	
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 ℃ (> 45 ℃ 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 61 000-6-3, AS4777.2	IEC62109-1, IEC62109-2, IEC62116, IEC61727, EN 61000-6-2, EN 61 000-6-3, ABNT NBR 16149, ABNT NBR 16150
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*: Devices for Australia are not equipped with DC switches

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