

SG80KTL-M

Multi-MPPT String Inverter for 1000 Vdc System



High Yield

- Max. efficiency 99 %, European efficiency 98.7 %
- 4 MPPT, adaptable to complex installation applications
- Long-time overload at 1.1 Pn at 45 °C, full power operation at 50 °C
- PID recovery function



Easy O&M

- Integrated string current monitoring function for fast trouble shooting
- Compact design and light weight for easy installation



Saved Investment

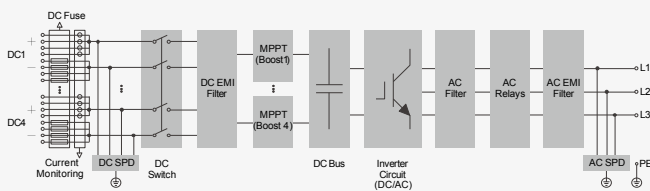
- 16 DC inputs, max. DC/AC up to 1.3
- Integrated tracking system power supply and communication interface



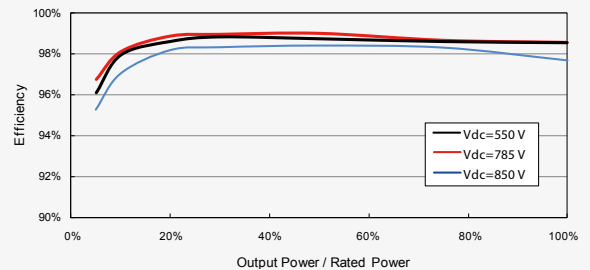
Grid Support

- Comply with IEC 61727, IEC 62116
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

Circuit Diagram



Efficiency Curve



Input (DC)**SG80KTL-M**

Max. PV input voltage	1100 V
Min. PV input voltage / Startup input voltage	200 V / 250 V
Nominal input voltage	585 V
MPP voltage range	200 – 1000 V
MPP voltage range for nominal power	500 – 850 V
No. of independent MPP inputs	4
Max. number of PV strings per MPPT	4 / 4 / 4 / 4
Max. PV input current	176 A (44 A / 44 A / 44 A / 44 A)
Max. current for input connector	12 A
Max. DC short-circuit current	192 A (48 A / 48 A / 48 A / 48 A)

Output (AC)

AC output power	88000 VA @ 45 °C / 80000 kVA @ 50 °C
Max. AC output current	94.1 A
Nominal AC voltage	3 / PE, 540 V
AC voltage range	432 - 594 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % I _n
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3

Efficiency

Max. efficiency / Euro. efficiency	99.0 % / 98.7 %
------------------------------------	-----------------

Protection

DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch / AC switch	Yes / No
DC fuse	Yes (positive, 15A)
PV string current monitoring	Yes
PID recovery function	Yes
Overvoltage protection	DC Type II / AC Type II

General Data

Dimensions (W*H*D)	690*720*285 mm
Weight	67 kg
Isolation method	Transformerless
Degree of protection	IP65
Night power consumption	< 2 W
Operating ambient temperature range	-25 to 60 °C (> 50 °C derating)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating)
Display / Communication	LED, Bluetooth + APP / RS485
DC connection type	MC4 (Max. 6 mm ²)
AC connection type	OT terminal (Max. 120 mm ²)
Compliance	IEC 62109, IEC 61727, IEC 62116
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control,
Type designation	SG80KTL-M-10

