

SG80KTL-M

String Inverter



High Yield

- Max. efficiency 99 %, European efficiency 98.7 %
- 4 MPPT, adaptable to complex installation applications
- Long time operation at 1.1 P_n 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

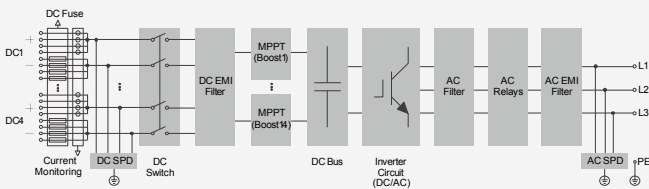
- 16 DC inputs, max. DC/AC more than 1.3
- Integrated tracking system power supply and communication interface



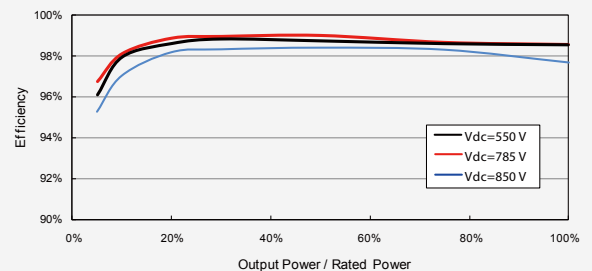
Grid Support

- 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)

| | |
|---|--|
| Nominal AC power (at 50 °C) | 80000 W |
| Max. AC output power at PF=1 (at 45 °C) | 88000 W |
| Max. AC apparent power (at 45 °C) | 88000 VA |
| 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 |
| Overvoltage protection | DC Type II / AC Type II |

General Data

| | |
|--|---|
| Dimensions (W*H*D) | 690x720x285 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 |

