

SG15KTL-M/SG20KTL-M

String Inverter



High Yield

- Max. efficiency 98.6 %, European efficiency 98.3 %
- 1.1 overload capacity, 10% more yield under high irradiance
- Adapt to complex power grid, extend the grid-connected generation time
- Patented PID recovery function optional



Easy O&M

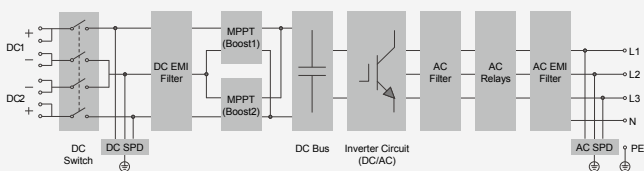
- 24kg, easy O&M
- Plug and play design, easy installation
- String current monitoring function for fast trouble shooting
- Fast commissioning, easy local and on-line monitoring



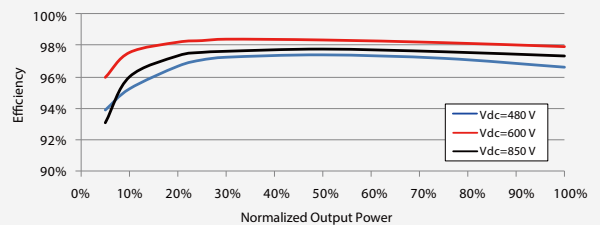
Safe and Reliable

- High power quality, no interference for electrical equipment
- Low radiation, compliance with household equipment standards
- High anti-corrosion with aluminum alloy die casting
- Build-in surge arresters and residual current protection

Circuit Diagram



Efficiency Curve



Input (DC)

| | SG15KTL-M | SG20KTL-M |
|---|---------------------|---------------|
| Max. PV input voltage | 1100 V | |
| Min. PV input voltage / Startup input voltage | 200 V / 250 V | |
| Nominal input voltage | 600 V | |
| MPP voltage range | 200 V – 1000 V | |
| MPP voltage range for nominal power | 380 V – 850 V | 480 V – 850 V |
| No. of independent MPP inputs | 2 | |
| Max. number of PV strings per MPPT | 2 | |
| Max. PV input current | 44A (22 A / 22 A) | |
| Max. current for input connector | 15 A | |
| Max. DC short-circuit current | 60 A (30 A / 30 A) | |

Output (AC)

| | | |
|---|--|--------------------------------------|
| AC output power | 16500 VA @ 35 °C / 15000 kVA @ 45 °C | 22000 VA @ 35 °C / 20000 kVA @ 45 °C |
| Max. AC output current | 24.0 A | 31.9 A |
| Nominal AC voltage | 3 / N / PE, 230 / 400 V | |
| AC voltage range | 270 V – 480 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 % In | |
| 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 | 98.6 % / 98.3 % |
|------------------------------------|-----------------|

Protection

| | |
|----------------------------------|-------------------------|
| DC reverse connection protection | Yes |
| AC short-circuit protection | Yes |
| Leakage current protection | Yes |
| Grid monitoring | Yes |
| DC switch / AC switch | Yes / No |
| PV string current monitoring | Yes |
| PID recovery function | Optional |
| Overvoltage protection | DC Type II / AC Type II |

General Data

| | |
|--|--|
| Dimensions (W*H*D) | 370*485*210 mm |
| Weight | 24 kg |
| Isolation method | Transformerless |
| Degree of protection | IP65 |
| Night power consumption | < 1 W |
| Operating ambient temperature range | -25 to 60 °C (> 45 °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 (Optional: WiFi / Ethernet) |
| DC connection type | MC4 (Max. 6 mm ²) |
| AC connection type | Plug and play connector (Max. 16 mm ²) |
| Compliance | EN62109-1, EN62109-2, IEC 61727, IEC 62116 |
| Grid support | Active & reactive power control and power ramp rate control |
| Type designation | SG15KTL-M-10 SG20KTL-M-10 |

