

SG15KTL-M/SG20KTL-M

Multi-MPPT String Inverter for 1000 Vdc System



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

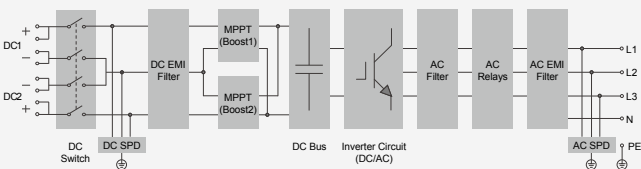
- 24kg, easy O&M
- Plug and play design, easy installation
- String current monitoring function for fast trouble shooting
- Fast commissioning, easy local and on-line monitoring



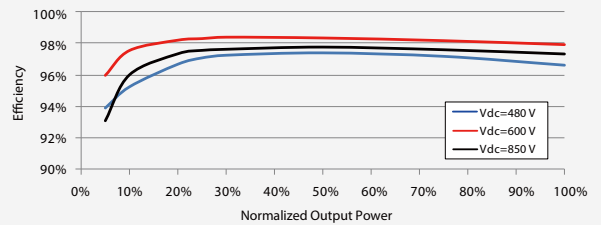
Safe and Reliable

- High power quality, no interference for electrical equipment
- Low radiation, compliance with household equipment standards
- High anti-corrosion with aluminum alloy die casting
- Built-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 %
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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



SG10KTL-M/SG12KTL-M

Multi-MPPT String Inverter for 1000 Vdc System



High Yield

- Max. efficiency 98.6 %, European efficiency 98.1 %
- 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

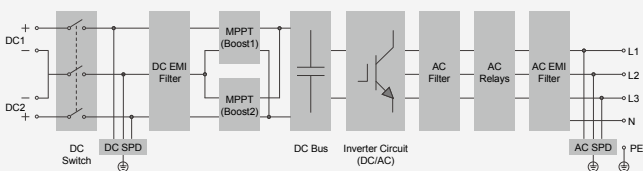
- 20kg, easy O&M
- Plug and play design, easy installation
- String current monitoring function for fast trouble shooting
- Fast commissioning, easy local and on-line monitoring



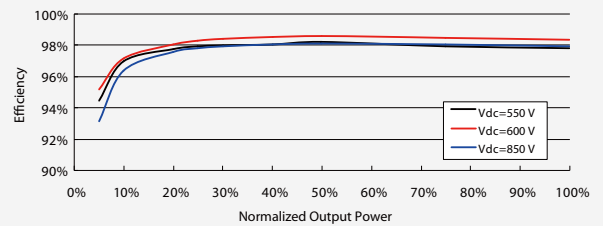
Safe and Reliable

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

Circuit Diagram



Efficiency Curve



Input (DC)	SG10KTL-M	SG12KTL-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	470 V – 850 V	550 V – 850 V
No. of independent MPP inputs	2	
Max. number of PV strings per MPPT	1	
Max. PV input current	22A (11 A / 11 A)	
Max. current for input connector	15 A	
Max. DC short-circuit current	30 A (15 A / 15 A)	
Output (AC)		
AC output power	11000 VA @ 35 °C / 10000 VA @ 45 °C	13200 VA @ 35 °C / 12000 VA @ 45 °C
Max. AC output current	16.5 A	20 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 % / 98.1 %	
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*160 mm	
Weight	20 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	Natural 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. 6 mm ²)	
Compliance	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-3-11, IEC/EN 61000-3-12, UTE C15-712-1, IEC 61727, IEC 62116, VDE0126-1-1/4105, G59/3	
Grid support	Active & reactive power control and power ramp rate control	
Type designation	SG10KTL-M-10	SG12KTL-M-10

