

# SG5KTL-MT

Multi-MPPT String Inverter for 1000 Vdc System



## High Yield

- Max. efficiency 98.2 %, European efficiency 97.6 %
- 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

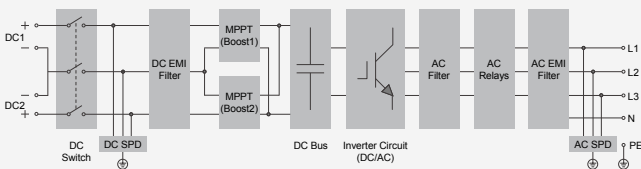
- 20kg, easy O&M
- Plug and play design, easy installation
- String current monitoring function for fast trouble shooting
- Fast commissioning, easy local and on-line monitoring



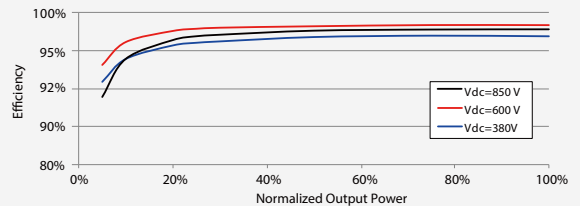
## Safe and Reliable

- 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)****SG5KTL-MT**

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	240 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	5500 VA @ 35 °C / 5000 VA @ 45 °C
Max. AC output current	8.5 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 % I <sub>n</sub>
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	98.2 % / 97.6 %
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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*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 <sup>2</sup> )
AC connection type	Plug and play connector (Max. 6 mm <sup>2</sup> )
Compliance	EN 62109-1, EN 62109-2, IEC 61727, IEC 62116, AS 4777.2
Grid support	Active & reactive power control and power ramp rate control
Type designation	SG5KTL-MT-10

