

SG5KTL-MT/SG6KTL-MT/SG8KTL-M

Multi-MPPT String Inverter for 1000 Vdc System



High Yield

- Max. efficiency 98.6%, European efficiency 98.0%
- 1.1 overload capacity, 10% more yield under high irradiance
- Adapt to complex power grid, extend the grid-connected generation time



Easy O&M

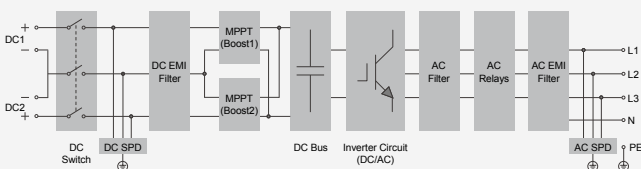
- 20kg, easy O&M
- Plug and play design, easy installation
- String current monitoring function for fast trouble shooting
- Fast commissioning, easy local and on-line monitoring



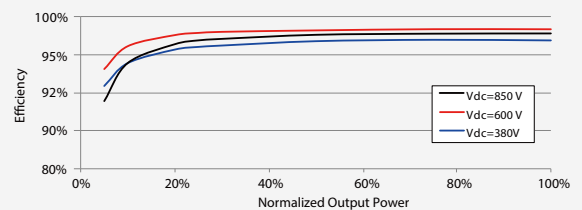
Safe and Reliable

- 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	SG6KTL-MT	SG8KTL-M
Max. PV input voltage	1100 V		
Min. PV input voltage / Start-up input voltage	200 V / 250 V		
Nominal PV input voltage	600 V		
MPP voltage range	200 – 1000 V		
MPP voltage range for nominal power	240 – 850 V	290 – 850 V	380 – 850 V
No. of independent MPP inputs	2		
Max. number of PV strings per MPPT	1		
Max. PV input current	22A (11A / 11A)		
Max. current for input connector	15 A		
Max. DC short-circuit current	30 A (15A / 15A)		
Output (AC)			
AC output power	5.5 kVA @ 35 °C / 5.0 kVA @ 45 °C	6.6 kVA @ 35 °C / 6.0 kVA @ 45 °C	8.8 kVA @ 35 °C / 8.0 kVA @ 45 °C
Max. AC output current	8.5 A	10.0 A	13.3 A
Nominal AC voltage	3 / N / PE, 230 / 400 V		
AC voltage range	270 – 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 _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 / European efficiency	98.2% / 97.6%	98.4% / 97.7%	98.6% / 98.0%
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		
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, (WiFi, E-Net optional)		
DC connection type	MC4 (Max. 6 mm ²)		
AC connection type	Plug and play connector (Max. 6 mm ²)		
Compliance	EN62109-1, EN62109-2, IEC 61727, IEC 62116, VDE 0126-1-1/4105, AS 4777.2, EN 50438:2013, C10/11, G59/3	EN62109-1, EN62109-2, IEC 61727, IEC 62116, VDE 0126-1-1/4105, EN 50438:2013, C10/11, G59/3	EN62109-1, EN62109-2, IEC 61727, IEC 62116, VDE 0126-1-1/4105, UTE C15-712-1, VFR-2014, CEI 0-21, EN 50438:2013, C10/11, G59/3
Grid Support	Active & reactive power control and power ramp rate control		
Type designation	SG5KTL-MT-10	SG6KTL-MT-10	SG8KTL-M-10

*:Devices for Australia are not equipped with DC switches

