

# SG5KTL-MT/SG6KTL-MT/ SG8KTL-M

Multi-MPPT String Inverter for 1000 Vdc System



## HIGH YIELD

- Industry leading efficiency of 98.6%
- Flexible PV string configurations with DC/AC ratio up to 1.3

## SAFE AND DURABLE

- Built-in surge arresters and residual current protection
- High anti-corrosion rating at C5

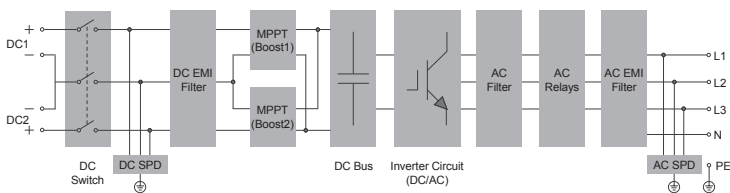
## SMART MANAGEMENT

- Feature-rich online monitoring via App or Web
- Over-the-air firmware updates
- Gain energy flow transparency with Sungrow smart meter
- Accurate dynamic feed-in control

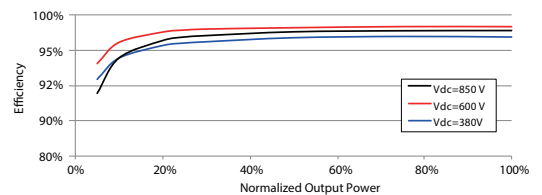
## EASY AND USER FRIENDLY

- 20kg compact design
- Unique push-in connectors for time-saving installation
- Mounting plate with built-in level
- Fast and easy commissioning via App

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



Type designation	SG5KTL-MT	SG6KTL-MT	SG8KTL-M
<b>Input (DC)</b>			
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 )	
<b>Output (AC)</b>			
Nominal AC power	5500 W @ 35 °C / 5000 W @ 45 °C	6600 W @ 35 °C / 6000 W @ 45 °C	8800 W @ 35 °C / 8000 W @ 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 <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	
<b>Efficiency</b>			
Max. efficiency / European efficiency	98.4% / 97.6%	98.4% / 97.7%	98.6% / 98.0%
<b>Protection</b>			
LVRT		Yes	
Islanding Protection		Yes	
DC reverse connection protection		Yes	
AC short-circuit protection		Yes	
Leakage current protection		Yes	
Grid monitoring		Yes	
DC switch		Yes**	
AC switch		No	
PV string current monitoring		Yes	
Overvoltage protection		DC Type II / AC Type II	
<b>General Data</b>			
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		0 – 100 % (non-condensing)	
Cooling method		Natural cooling	
Max. operating altitude		4000 m (> 3000 m derating)	
Display / Communication		LED, Bluetooth + APP / RS485 (optional:WLAN, Ethernet)	
DC connection type		MC4 (Max. 6 mm <sup>2</sup> )	
AC connection type		Plug and play connector (Max. 6mm <sup>2</sup> )***	
Compliance	EN 62109-1, EN 62109-2, IEC 61727, IEC 62116, IEC 61000-3-11, IEC 61000-3-12, VDE-AR-N 4105:2018, AS/NZS 4777.2, EN 50549-1, EN 50438, C10/11, G59/3, DEWA	EN62109-1, EN62109-2, IEC 61727, IEC 62116, IEC 61000-3- 11, IEC 61000-3-12, VDE-AR-N 4105:2018, EN 50549-1, EN 50438, C10/11, G59/3, DEWA	EN62109-1, EN62109-2, IEC 61727, IEC 62116, IEC 61000-3-11, IEC 61000-3-12, VDE-AR-N-4105:2018, VDE 0126-1-1/ A1 VFR 2014, UTE C15-712-1, CEI 0-21, EN 50549-1, EN 50438, C10/11, G59/3, UNE 206007-1, DEWA
Grid Support	Active & reactive power control and power ramp rate control		

\*:If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.

\*\* :Devices for Australia are not equipped with DC switches

\*\*\*:Deluxe Version: < 3W (DC & AC power supply),Max.10mm<sup>2</sup> (Unique push-in connector)

