SG5KTL-MT/SG6KTL-MT/ SG8KTL-M

SUNGROW
Clean power for all

Residential Three Phase Inverter

HIGH YIELD

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

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

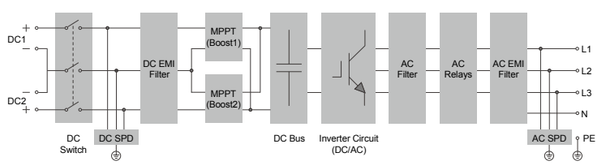
SAFE AND DURABLE

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

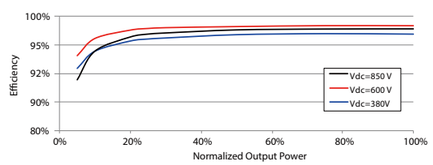
EASY AND USER FRIENDLY

- 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



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Type designation	SG5KTL-MT	SG6KTL-MT	SG8KTL-M
Input (DC)			
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)			
Nominal AC power	5500 VA@ 35 ℃ / 5000 VA @ 45 ℃	6600 VA@ 35 ℃ / 6000 VA @ 45 ℃	8800 VA@ 35 ℃ / 8000 VA @ 45 ℃
Max. AC output current (at 35 ℃)	8.5A	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 % In	
Power factor at nominal power		>0.99	
Adjustable power factor		0.8 leading - 0.8 lagging	
Feed-in phases / connection phases		3 / 3	
Efficiency			
Max. efficiency / European efficiency	98.4% / 97.6%	98.4% / 97.7%	98.6% / 98.0%
Protection			
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	
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 ℃ (> 45 ℃ 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: WiFi, Ethernet)	
DC connection type		MC4 (Max. 6 mm²)	
AC connection type		Plug and play connector (Max. 6 mm²)**	
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, UNE 206007-1
Grid Support		Active & reactive power control and power ramp rate control	
Type designation	SG5KTL-MT	SG6KTL-MT	SG8KTL-M

*: Deluxe Version: < 3W (DC & AC power supply)

**: Deluxe Version: Max.10mm² (Unique push-in connector)

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