

Residential Three Phase Inverter



HIGH YIELD

- Industry leading efficiency of 98.4%
- 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

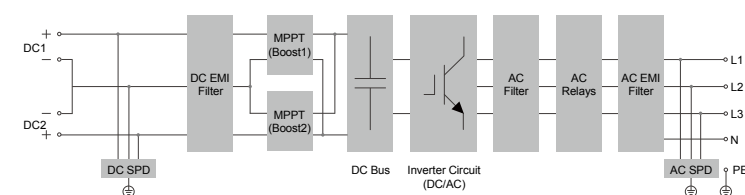
- Feature-rich online monitoring via App or Web
- Over-the-air firmware updates
- Gain energy flow transparency with Sungrow smart meter
- Accurate dynamic feed-in control



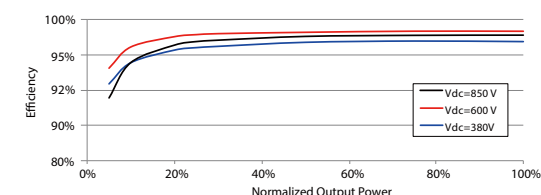
EASY AND USER FRIENDLY

- 20kg compact design
- 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
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
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 °C / 5000 VA @ 45 °C
Max. AC output current (at 35 °C)	8.5A
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	>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%
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	No
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 °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: WiFi, Ethernet)
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
Grid Support	Active & reactive power control and power ramp rate control
Type designation	SG5KTL-MT