SG10KTL-M/SG12KTL-M

Multi-MPPT String Inverter for 1000 Vdc System

SUNGROW
Clean power for all

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

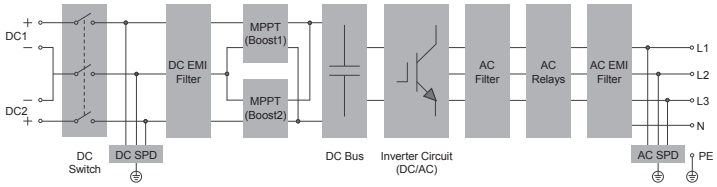
SAFE AND DURABLE

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

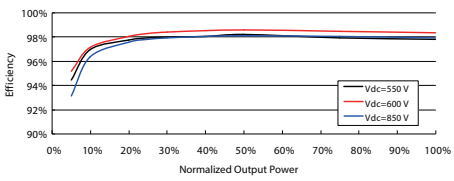
EASY AND USER FRIENDLY

- 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



Type designation	SG10KTL-M	SG12KTL-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 V – 1000 V	
MPP voltage range for nominal power	470 V – 850 V	550 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	11000 VA** @ 35 ℃ / 10000 VA @ 45 ℃	13200 VA @ 35 ℃ / 12000 VA @ 45 ℃
Max. AC output current	16.5 A	20 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 % In	
Power factor at nominal power / Ajustable power factor	> 0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / connection phases	3 / 3	
Efficiency		
Max. efficiency / European efficiency	98.6 % / 98.1 %	
Protection		
LVRT	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	
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 ℃ (> 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: WLAN, Ethernet)	
DC connection type	MC4 (Max. 6 mm^2)	
AC connection type	Plug and play connector (Max. 6 mm^2)****	
Compliance	IEC 62109-1, IEC 62109-2, IEC 61000-3-11, IEC 61000-3-12, IEC 61727, IEC 62116, IEC 60068, IEC 61683, EN 50530, VDE-AR-N 4105:2018, AS/NZS 4777.2, VDE 0126-1-1/A1 VFR 2014, UTE C15-712-1, G59/3, CEI 0-21, UNE 206007-1, EN 50549-1, EN50438, DEWA,MEA,PEA	
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.
**: VDE4105: 10000 VA
***: Devices for Australia are not equipped with DC switches
****: Deluxe Version: < 3W (DC & AC power supply); Max.10mm^2 (Unique push-in connector)