

SG33KTL-M/SG36KTL-M

Multi-MPPT String Inverter for 1000 V_{dc} System



High Yield

- Max. efficiency 98.5 %, European efficiency 98.3 %
- Long-time overload at 1.1 P_n (SG33KTL-M)
- Full power operation without derating at 50 °C
- Up to 3 MPP trackers



Easy O&M

- Integrated string current monitoring function for fast trouble shooting
- Compact design and light weight for easy installation
- Plug-in design of fan and SPD, easy for on-site maintenance



Saved Investment

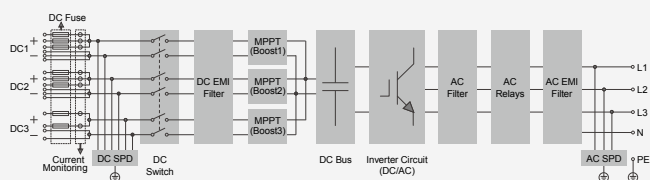
- Max. DC/AC ratio up to 1.4
- Can be installed horizontally, saving installation cost
- Integrated DC combiner box and DC/AC overvoltage protection



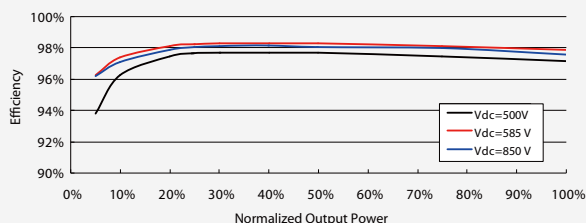
Grid Support

- Compliance with standards: CE, IEC 62109, IEC 61727, IEC 62116, VDE 0126-1-1, VDE-AR-N-4105
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

Circuit Diagram



Efficiency Curve



Input (DC)

	SG33KTL-M	SG36KTL-M
Max. PV input voltage	1100 V	
Min. PV input voltage / Startup input voltage	200 V / 250 V	
Nominal input voltage	585 V	
MPP voltage range	200 – 1000 V	
MPP voltage range for nominal power	500 – 850 V	
No. of independent MPP inputs	3	
Max. number of PV strings per MPPT	3 / 3 / 2	
Max. PV input current	88 A (33 A / 33 A / 22 A)	
Max. current for input connector	12 A	
Max. DC short-circuit current	96 A (36 A / 36 A / 24 A)	

Output (AC)

	SG33KTL-M	SG36KTL-M
AC output power	36000 VA @ 45 °C / 33000 VA @ 50 °C	36000 VA @ 50 °C
Max. AC output current	53.5 A	
Nominal AC voltage	3 / PE or 3 / N / PE, 230 / 400 V	
AC voltage range	310 – 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 / Euro. efficiency	98.5 % / 98.3 %
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Protection

DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch / AC switch	Yes / No
DC fuse	Yes (positive, 15A)
PV string current monitoring	Yes
Overvoltage protection	DC Type II / AC Type II

General Data

Dimensions (W*H*D)	525*740*240 mm	
Weight	48 kg	
Isolation method	Transformerless	
Degree of protection	IP65	
Night power consumption	< 2 W	
Operating ambient temperature range	-25 to 60 °C (> 50 °C derating)	
Allowable relative humidity range (non-condensing)	0 – 100 %	
Cooling method	Smart forced air cooling	
Max. operating altitude	4000 m (> 3000 m derating)	
Display / Communication	Graphic LCD / RS485	
DC connection type	MC4 (Max. 6 mm ²)	
AC connection type	Screw clamp terminal (Max. 50 mm ²)	
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, CE, IEC 61000-3-11/-12, VDE 0126-1-1, VDE-AR-N-4105, CEA	
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control	
Type designation	SG33KTL-M-10	SG36KTL-M-10

