

SG110KTL-M Preliminary

Multi-MPPT String Inverter for 1000 Vdc System



High Yield

- Max. efficiency 98.7 %, European efficiency 98.5 %
- 9 MPPT, adaptable to complex installation applications
- Supports bifacial PV modules with maximum DC operating current up to 13 A
- Patented anti-PID function optional



Easy O&M

- Integrated string current monitoring function and IV curve scan for fast trouble shooting
- IP68 smart fan cooling, long lifetime due to low temperature rise
- AC and DC power redundancy design, 24-hour status monitoring



Saved Investment

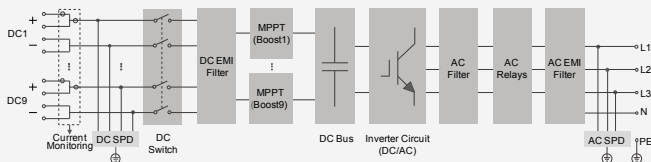
- Integrated tracking system power supply and communication interface
- Night Static Var Generator (SVG) function
- The max. current of the input connector is 30A, supports two strings combined as one connection, saving the DC cable cost



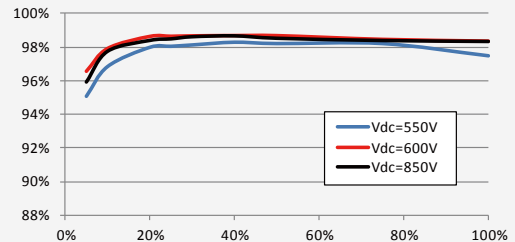
Grid Support

- Compliance with standards: CEA, IEC 61727, IEC 62116, VDE 0126-1-1, G59/3, VDE AR-N-4105, VDE-AR-N-4120, BDEW, EN 50438
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

Circuit Diagram



Efficiency Curve



Input (DC)

Max. PV input voltage	1100 V
Min. PV input voltage / Startup input voltage	200 V / 250 V
Nominal input voltage	600 V
MPP voltage range	200 – 1000 V
MPP voltage range for nominal power	550 – 850 V
No. of independent MPP inputs	9
Max. number of PV strings per MPPT	2
Max. PV input current	26 A * 9
Max. current for input connector	30 A
Max. DC short-circuit current	40 A * 9

SG110KTL-M**Output (AC)**

AC output power	110 kVA @ 45 °C / 100 kVA @ 50 °C
Max. AC output current	158.8 A
Nominal AC voltage	3 / N / PE, 400 V
AC voltage range	320 – 460 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 / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3

Efficiency

Max. efficiency / Euro. efficiency	98.7 % / 98.5 %
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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
PV string current monitoring	Yes
Anti-PID function	Optional
Night SVG function	Yes
Overvoltage protection	DC Type II / AC Type II

General Data

Dimensions (W*H*D)	999*658*357 mm
Weight	85 kg
Isolation method	Transformerless
Degree of protection	IP65
Night power consumption	< 3.5 W
Operating ambient temperature range	-25 to 60 °C (> 45 °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	LED, Bluetooth+APP / RS485, Optional: Wi-Fi, Ethernet
DC connection type	MC4 (Max. 6 mm ²)
AC connection type	OT terminal (Max. 240 mm ²)
Compliance	CEA, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE0126-1-1, G59/3, VDE-AR-N-4105, VDE-AR-N-4120, BDEW, IEC 61000-6-3, EN 50438
Grid support	SVG (optional), LVRT, HVRT, active & reactive power control and power ramp rate control
Type designation	SG110KTL-M-10

