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

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

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

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

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### 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

### Output (AC)
- AC output power: 110 kVA @ 45 ℃ / 100 kVA @ 50 ℃
- 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 %

### 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 ℃ (> 45 ℃ 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 mm²)
- AC connection type: OT terminal (Max. 240 mm²)
- 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