

SG50KTL-M

String Inverter



High Yield

- Max. efficiency 98.9%
- Max. DC/AC ratio up to 1.3
- Long-term overload at 1.1Pn
- Up to 4 MPP Trackers



Saved Investment

- Less construction and installation costs in 2MW block
- Integrated DC combiner box with DC switch, DC fuses and DC/AC Type II SPD



Easy O&M

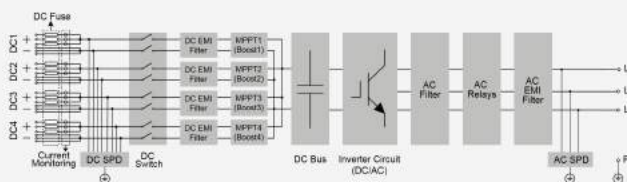
- String current monitoring function for fast trouble shooting



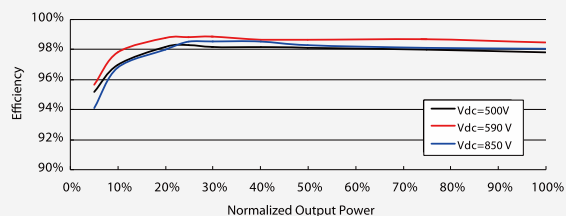
Grid Support

- Grid support including LVRT, HVRT and FRT
- Comply with PEA, TÜV, CE, G59/3, VDE 4105 and BDEW

Circuit Diagram



Efficiency Curve



Input (DC)

Max. PV input voltage	1000 V
Min. PV input voltage / Startup input voltage	300 V / 300 V
Nominal input voltage	590 V
MPP voltage range	300 - 950 V
MPP voltage range for nominal power	500 - 850 V
No. of independent MPP inputs	4
Max. number of PV strings per MPPT	3
Max. PV input current	112 A (28 A / 28 A / 28 A / 28 A)
Max. current for input connector	12 A
Max. DC short-circuit current	140 A (35 A / 35 A / 35 A / 35 A)

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Output (AC)

Nominal AC power (at 50 °C)	50000 W
Max. AC output at PF=1 (at 45 °C)	55000 W
Max. AC apparent power (at 45 °C)	55000 VA
Max. AC output current	80A
Nominal AC voltage	3 / N / PE or 3 / 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%In
Power factor at nominal power / Adjustable power factor	> 0.99 @ default value at nominal power, (adj. 0.8 leading - 0.8 lagging)
Feed-in phases / Connection phases	3 / 3

Efficiency

Max. efficiency / Euro. efficiency	98.9 % / 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
DC fuse	Yes (positive, 15 A)
PV string current monitoring	Yes
Anti-PID function	Optional
Overvoltage protection	DC Type II / AC Type II

General Data

Dimensions (W*H*D)	665*906*256 mm
Weight	70 kg
Isolation method	Transformerless
Degree of protection	IP65
Night power consumption	<1W
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
AC connection type	Screw clamp terminal
Compliance	VDE0126-1-1, EN62109-1, EN62109-2, G59/3, BDEW
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control