

# SG50CX New

Multi-MPPT String Inverter for 1000 Vdc System



### High Yield

- 5 MPPTs with max. efficiency 98.7%
- Compatible with bifacial module
- Built-in PID recovery function optional



### Smart O&M

- Touch free commissioning and remote firmware upgrade
- Online IV curve scan and diagnosis
- Fuse free design with smart string current monitoring



### Low Cost

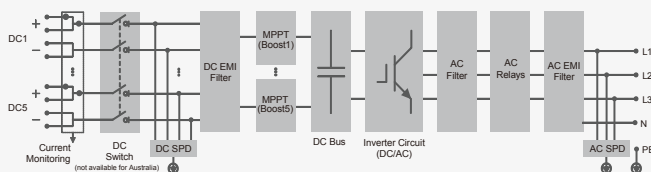
- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Cable free communication with optional Wi-Fi



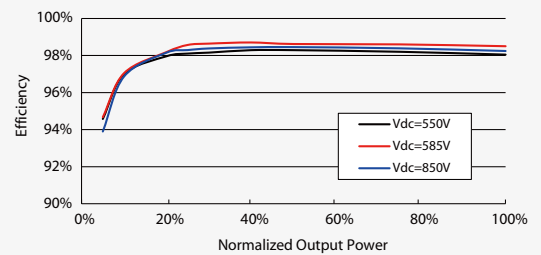
### Proven Safety

- IP66 and C5 protection
- Type II SPD for both DC and AC
- Compliant with global safety and grid code

#### Circuit Diagram



#### Efficiency Curve



**Input (DC)****SG50CX**

Max. PV input voltage	1100 V
Min. PV input voltage / Start-up input voltage	200 V / 250 V
Nominal PV input voltage	585 V
MPP voltage range	200 – 1000 V
MPP voltage range for nominal power	550 – 850V
No. of independent MPP inputs	5
Max. number of PV strings per MPPT	2
Max. PV input current	130 A
Max. current for input connector	30 A
Max. DC short-circuit current	200 A

**Output (AC)**

AC output power	55 kVA <sup>1)</sup> @ 40 °C / 50 kVA @ 45 °C
Max. AC output current	83.6 A
Nominal AC voltage	3 / N / PE, 230 / 400 V
AC voltage range	312 – 528 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 <sub>n</sub>
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 / European efficiency	98.7% / 98.4%
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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 <sup>2)</sup> / No
PV String current monitoring	Yes
Q at night	Yes
PID recovery function	Optional
Overvoltage protection	DC Type II / AC Type II

**General Data**

Dimensions (W * H * D)	782 * 645 * 310mm
Weight	62 kg
Isolation method	Transformerless
Degree of protection	IP66
Night power consumption	≤2 W
Operating ambient temperature range	-30 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	LED, Bluetooth+APP
Communication	RS485 / Optional: Wi-Fi, Ethernet
DC connection type	MC4 (Max. 6 mm <sup>2</sup> )
AC connection type	OT or DT terminal (Max.70 mm <sup>2</sup> )
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4105:2018, VDE-AR-N 4110:2018, IEC 61000-6-3, EN 50438, AS/NZS 4777.2:2015 , CEI 0-21, VDE 0126-1-1/A1 VFR 2014, UTE C15-712-1:2013, DEWA
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control

1) Max. 50kVA for Australia

2) Not available for Australia

