

SG33CX/SG40CX/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



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

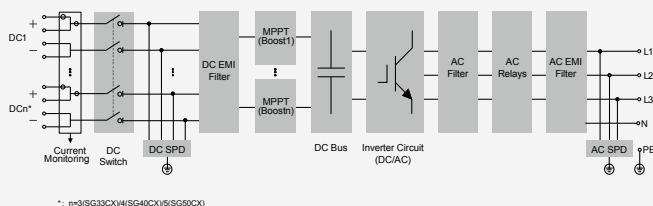
- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Cable free communication with optional Wi-Fi



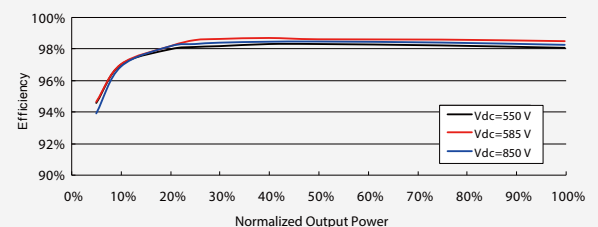
Proven Safety

- 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)	SG33CX	SG40CX	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	3	4	5
Max. number of PV strings per MPPT	2		
Max. PV input current	78 A	104 A	130 A
Max. current for input connector	30 A		
Max. DC short-circuit current	120 A	160 A	200 A
Output (AC)			
AC output power	36.3 kVA @ 40 °C / 33 kVA @ 45 °C	44 kVA @ 40 °C / 40 kVA @ 45 °C	55 kVA @ 40 °C / 50 kVA @ 45 °C
Max. AC output current	55.2 A	66.9 A	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 _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 / European efficiency	98.6 % / 98.3 %	98.6 % / 98.3 %	98.7 % / 98.4 %
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		
Q at night	Yes		
PID recovery function	optional		
Overvoltage protection	DC Type II / AC Type II		
General Data			
Dimensions (W*H*D)	702*595*310mm	782*645*310mm	782*645*310mm
Weight	50 kg	58 kg	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 ²)		
AC connection type	OT or DT terminal (Max.70 mm ²)		
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		

