

# SG33CX/SG40CX/SG50CX **New**

**SUNGROW**  
Clean power for all

Multi-MPPT String Inverter for 1000 Vdc System



## HIGH YIELD

- Up to 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

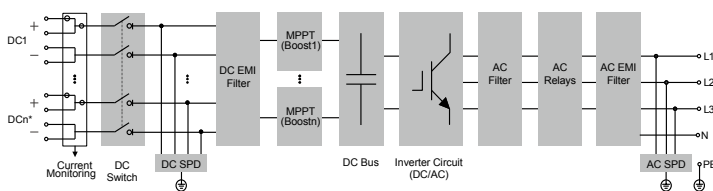
- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Cable free communication with optional Wi-Fi



## PROVEN SAFETY

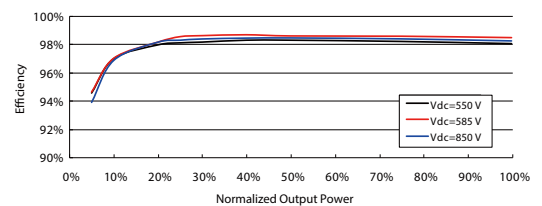
- IP66 and C5 protection
- Type II SPD for both DC and AC
- Compliant with global safety and grid code

## CIRCUIT DIAGRAM



\*: n=3(SG33CX)/4(SG40CX)/5(SG50CX)

## EFFICIENCY CURVE



Type designation	SG33CX	SG40CX	SG50CX
<b>Input (DC)</b>			
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
<b>Output (AC)</b>			
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	83.6A
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	
<b>Efficiency</b>			
Max. efficiency / European efficiency	98.6 % / 98.3 %	98.6% / 98.3%	98.7% / 98.4%
<b>Protection</b>			
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	
<b>General Data</b>			
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 <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	

