

# SG33CX/SG40CX/ SG50CX

Premium

**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

## SMART O&M

- Touch free commissioning and remote firmware upgrade
- Smart IV Curve diagnosis \*
- Fuse free design with smart string current monitoring

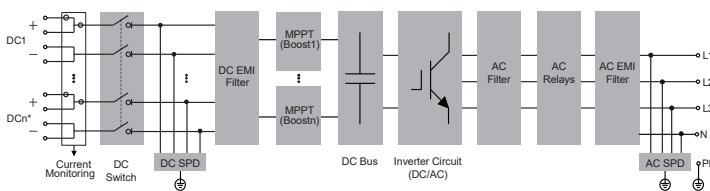
## SAVED INVESTMENT

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

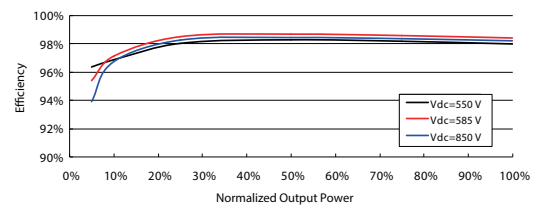
## PROVEN SAFETY

- Quick arc-fault circuit interrupter
- Integrated type I & II DC SPD, type II AC SPD
- IP66 and C5 anti-corrosion

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE (SG50CX)



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	
No. of independent MPP inputs	3	4	5
No. of PV strings per MPPT		2	
Max. PV input current	3 * 26 A	4 * 26 A	5 * 26 A
Max. DC short-circuit current	3 * 40 A	4 * 40 A	5 * 40 A
<b>Output (AC)</b>			
AC output power	33 kVA @45 °C, 400Vac / 36.3 kVA @ 40 °C,400Vac 33 kVA @ 50 °C, 415Vac / 36.3 kVA @ 45 °C, 415Vac	40 kVA @ 45 °C, 400Vac / 44 kVA @ 40 °C,400Vac 40 kVA @ 50 °C, 415Vac / 44 kVA @ 45 °C, 415Vac	50 kVA @45 °C, 400Vac / 55kVA @ 40 °C,400Vac 50kVA @ 50 °C, 415Vac / 55kVA @ 45 °C,415Vac
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	
Harmonic (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 / AC connection		3 / 3	
<b>Efficiency</b>			
Max. efficiency / European efficiency	98.6 % / 98.3 %	98.6% / 98.3%	98.7% / 98.4%
<b>Protection and Function</b>			
DC reverse polarity protection		Yes	
AC short circuit protection		Yes	
Leakage current protection		Yes	
Grid monitoring		Yes	
Ground fault monitoring		Yes	
DC switch		Yes	
AC switch		No	
PV string monitoring		Yes	
Q at night function		Yes	
PID recovery function		Yes	
Arc fault circuit interrupter (AFCI)		Yes	
Overvoltage protection		DC Type I + 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
Topology		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		0 – 100 %	
Cooling method		Smart forced air cooling	
Max. operating altitude		4000 m (> 3000 m derating)	
Display		LED, Bluetooth+APP	
Communication		RS485 / Optional: WLAN, 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 50549-1/2, AS/NZS 4777.2:2015, CEI 0-21 2019, CEI0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, DEWA, UNE 206007-1/RD 1699, UNE 217001, Israel certificate, G99	
Grid Support		Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control	

\* Only compatible with Sungrow Logger, EyeM4 and iSolarCloud

\*\* If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.