

# SG33/40/50CX

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

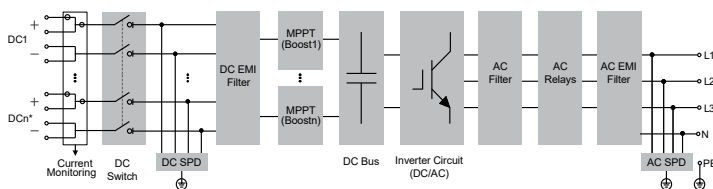
## SAVED INVESTMENT

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

## PROVEN SAFETY

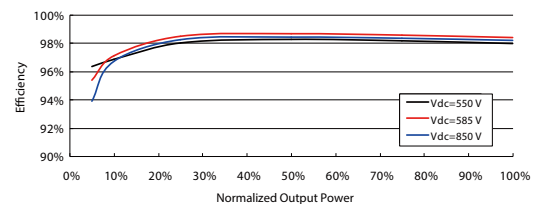
- IP66 and C5 anti-corrosion
- Type II SPD for both DC and AC, DC Type I+II Opt
- Satisfied global safety and grid code

## 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		
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)	Optional		
Overvoltage protection	DC Type II (optional: 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

\*\* : The inverter enters the standby state when the input voltage ranges between 1,000 V and 1,100 V. If the maximum DC voltage in the system can exceed 1000 V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.