SG33/40/50CX

Multi-MPPT String Inverter for 1000 Vdc System





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

SAVED INVESTMENT

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

SMART O&M

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

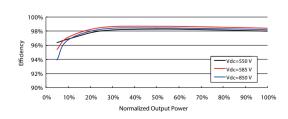
PROVEN SAFETY

- 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

DC EMI Filter (Boostr) Current DC DC SPD DC Bus Inverter Circuit (DCIAC) DC Bus Inverter Circuit (DCIAC)

EFFICIENCY CURVE







			Clean power for all	
Type designation	SG33CX	SG40CX	SG50CX	
Input (DC)				
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	Ŭ.	2	3	
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	
Output (AC)	3 40 /	7 70 /	3 +0 A	
	77 k)/A @ 4E °C (400)/20 /	40 kVA @ 45 °C, 400Vac /	50 kVA @45 °C, 400Vac	
AC output power	36.3 kVA @ 40 °C, 400Vac 33 KVA @ 50 °C, 415Vac /	44 kVA @ 40 °C, 400Vac 40 KVA @ 50 °C, 415Vac / 44 KVA @ 45 °C, 415Vac	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 % In			
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging			
Feed-in phases / AC connection	3/3			
		3/3		
Efficiency	00.60/ /00.70/	00.60/ / 00.70/	00 50/ 100 /0/	
Max. efficiency / European efficiency	98.6 % / 98.3 %	98.6% / 98.3%	98.7% / 98.4%	
Protection and Function				
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			
General Data				
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 mm²)			
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AC connection type	OT or DT terminal (Max.70 mm²)			
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			
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^{*:} 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.











