SG30/40/50CX-P2

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- DC 15A current input, compatiable with over 500W+ PV module
- Dynamic shading optimization mode
- Built-in PID recovery function

SMART O&M

- Key component diagnosis and protection
- Smart IV Curve Diagnosis
- Grid fault record function, easy for remote O&M

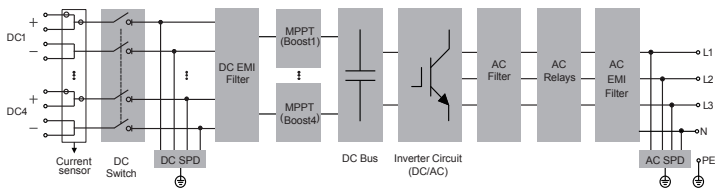
LOWER INVESTMENT

- Easy to handle thanks to 34% weight reduced
- Plug and Play with Buckle Design

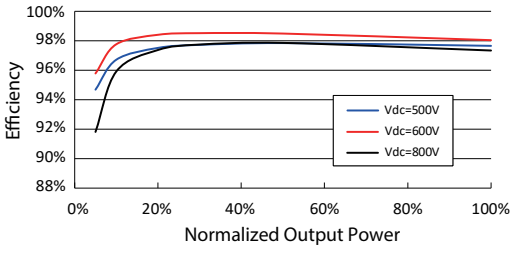
PROVEN SAFETY

- IP66 protection and C5 Anti-corrosion
- DC Type I+II SPD, AC Type II SPD
- Support AFCI 2.0 function

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG50CX-P2)



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Type designation	SG30CX-P2	SG40CX-P2	SG50CX-P2
Input (DC)			
Recommended max. PV input power	42 kWp	56 kWp	70 kWp
Max. PV input voltage*	1100 V		
Min. PV input voltage / Startup input voltage	160 V / 200 V		
Rated PV input voltage	600 V		
MPPT operating voltage range**	160 V – 1000 V		
No. of independent MPP inputs	3	4	
No. of PV strings per MPPT	2		
Max. PV input current	90 A (30 A * 3)	120 A (30 A * 4)	
Max. DC short-circuit current	120 A (40 A * 3)	160 A (40 A * 4)	
Max. current for DC connector	30 A		
Output (AC)			
Rated AC output power	30 kW	40 kW	50 kW
Max. AC output apparent power	33 kVA	44 kVA	55 kVA
Max. AC output current	50.2 A	66.9 A	83.6 A
Rated AC output current(at 230V)	43.5A	58 A	72.5 A
Rated AC voltage	3 / N / PE, 220 / 380 V, 230 / 400 V		
AC voltage range	312 V - 480 V		
Rated grid frequency	50 Hz / 60 Hz		
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz		
Harmonic (THD)	< 3 % (at rated power)		
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging		
Feed-in phases / AC connection	3 / 3-N-PE		
Efficiency			
Max. efficiency / European efficiency	98.5% / 98.3%		
Protection			
Grid monitoring	Yes		
DC reverse polarity protection	Yes		
AC short-circuit protection	Yes		
Leakage current protection	Yes		
Surge protection	DC Type I+II / AC Type II		
Ground fault monitoring	Yes		
DC switch	Yes		
PV string current monitoring	Yes		
Arc fault circuit interrupter (AFCI)	Yes		
PID recovery function	Yes		
Optimizer compatibility ***	Optional		
RSD compatibility ****	Optional		
General Data			
Dimensions (W * H * D)	645 * 575 * 245 mm		
Weight	38 kg	40kg	41 kg
Mounting method	Wall-mounting bracket		
Topology	Transformerless		
Degree of protection	IP66		
Night power consumption	< 7W		
Corrosion	C5		
Operating ambient temperature range	-30 ℃ to 60 ℃		
Allowable relative humidity range (non-condensing)	0 % – 100 %		
Cooling method	Smart forced air cooling		
Max. operating altitude	4000 m		
Display	LED, Bluetooth+APP		
Communication	RS485 / Optional: WLAN, Ethernet		
DC connection type	Evo2 (Max. 6 mm²)		
AC connection type	OT terminal (16 – 35 mm²)		OT or DT terminal (35 – 50 mm²)
AC cable specification	Outside diameter 18 – 38 mm		
Grid Compliance	IEC 62109, IEC 61727, IEC 62116, VDE-AR-N 4105:2018, IEC 61000-6-3, EN 50549-1, CEI 0-21 2019,CEI0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, UNE 206007-1/RD 1699, UNE 217002, G99, IEC 63027		
Grid Support	Q at night function, LVRT, HVRT,active & reactive power control and power ramp rate control		

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection
** Please refer to the user manual for the full load MPPT voltage range
***30kVA for Germany, Belgium, Austria, Ukraine and Denmark, 33kVA for others
**** For optimizer & RSD compatibility, please consult Sungrow before placing an order

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