

SG25/30/33CX-P2

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- DC 15A current input, compatible 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

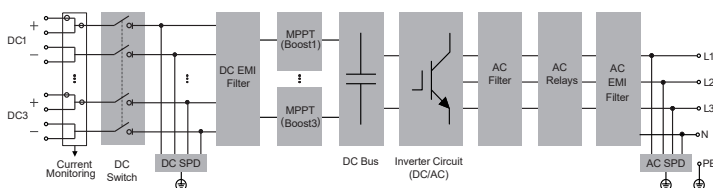
LOWER INVESTMENT

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

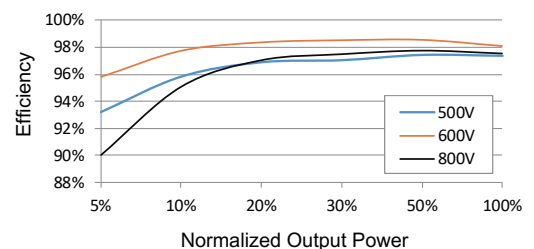
PROVEN SAFETY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG33CX-P2)



Type designation	SG25CX-P2	SG30CX-P2	SG33CX-P2
Input (DC)			
Recommended max. PV input power	35 kWp	42 kWp	46.2 kWp
Max. PV input voltage	1100 V		
Min. PV input voltage / Startup input voltage	160 V / 200 V		
Rated PV input voltage	600 V		
MPP voltage range	160 V - 1000 V		
No. of independent MPP inputs	3		
No. of PV strings per MPPT	2		
Max. PV input current	90 A (30 A * 3)		
Max. DC short-circuit current	120 A (40 A * 3)		
Max. current for DC connector	30 A		
Output (AC)			
Rated AC output power	25 kW (415 V @50°C)*	30 kW (415 V @50°C)*	33 kW (415 V @50°C)*
Max. AC output apparent power	27.5 kVA (415 V @50°C)*	33 kVA *(415 V @50°C)*	36.3 kVA (415 V @50°C)*
Max. AC output current	41.8 A	50.2 A	55.2 A
Rated AC output current(at 230V)	36.2 A	43.5 A	47.8 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 / connection phases	3 / 3-N-PE		
Efficiency			
Max. efficiency / European efficiency	98.4% / 98.2%	98.5% / 98.3%	98.5% / 98.3%
Protection			
Grid monitoring	Yes		
DC reverse connection 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		
General Data			
Dimensions (W * H * D)	645 mm * 575 mm * 245 mm		
Mounting Method	Wall-mounting bracket		
Weight	38 kg		
Topology	Transformerless		
Degree of protection	IP66		
Corrosion	C5		
Night power consumption	< 5W		
Operating ambient temperature range	-30 °C - 60 °C		
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 mm ²)		
AC connection type	OT terminal (16 - 35 mm ²)		
AC Cable specification	Outside diameter 18 mm - 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		
Grid Support	Q at night function, LVRT, HVRT,active & reactive power control and power ramp rate control		

* PV input voltage need over 630VDC

**For optimizer compatibility, please consult Sungrow before placing an order



SG36/40/50CX-P2

Multi-MPPT String Inverter for 1000 Vdc System

Preliminary



HIGH YIELD

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

SMART O&M

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- Smart IV Curve Diagnosis
- Grid fault record function, easy for remote O&M

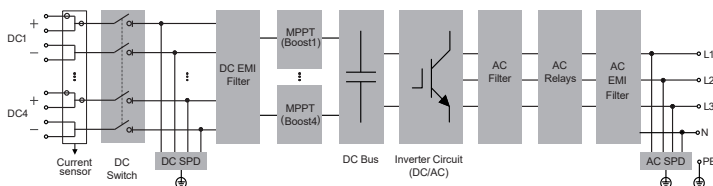
LOWER INVESTMENT

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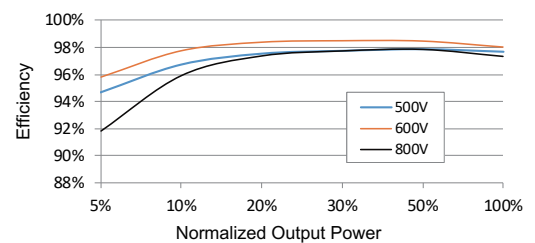
PROVEN SAFETY

- 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)



Type designation	SG36CX-P2	SG40CX-P2	SG50CX-P2
Input (DC)			
Recommended max. PV input power	50.4 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		
MPP voltage range	160 V - 1000 V		
No. of independent MPP inputs	4		
No. of PV strings per MPPT	2		
Max. PV input current	120 A (30 A * 4)		
Max. DC short-circuit current	160 A (40 A * 4)		
Max. current for DC connector	20A		
Output (AC)			
Rated AC output power	36 kVA	40 kVA	50 kVA
Max. AC output apparent power	40 kVA	44 kVA	55 kVA
Max. AC output current	60.2 A	66.9 A	83.6 A
Rated AC output current(at 230V)	52.17 A	58 A	72.5 A
Rated AC voltage	3 / N / PE, 220 / 380 V, 230 / 400 V		
AC voltage range	312 - 480 V		
Rated grid frequency	50 Hz / 60 Hz		
Grid frequency range	45 – 55 Hz / 55 – 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 / connection phases	3 / 3-N-PE		
Efficiency			
Max. efficiency / European efficiencyEuro. Efficiency	98.5% / 98.3%		
Protection			
Grid monitoring	Yes		
DC reverse connection 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		
General Data			
Dimensions (W*H*D)	645*575*245 mm		
Mounting Method	Wall-mounting bracket		
Weight	40 kg	40 kg	41 kg
Topology	Transformerless		
Degree of protection	IP66		
Corrosion	C5		
Night power consumption	< 5W		
Operating ambient temperature range	-30 to 60 °C		
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 mm ²)		
AC connection type	OT terminal (16~35 mm ²)		OT or DT terminal (35~50 mm ²)
AC Cable specification	Outside diameter 18~38mm		
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, C99		
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control		

