SG50CX-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

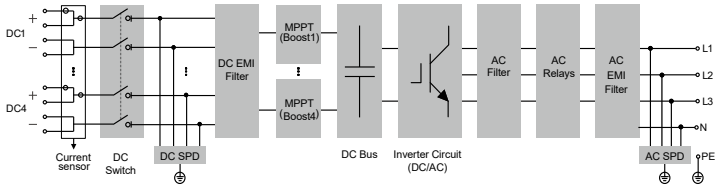
LOWER INVESTMENT

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

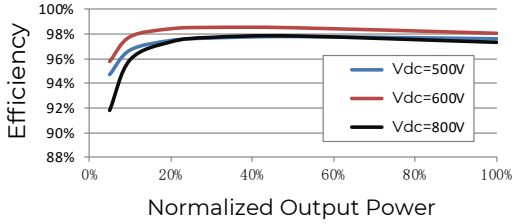
PROVEN SAFETY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG50CX-P2)



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Type designation	SG50CX-P2
Input (DC)	
Recommended max. PV input power	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 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	30 A
Output (AC)	
Rated AC output power	50 kW
Max. AC output apparent power	55 kVA
Max. AC output current	83.6 A
Rated AC output current(at 230V)	72.5 A
Rated AC voltage	3 / N / PE, 220 V / 380 V, 230 V / 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 mm * 575 mm * 245 mm
Weight	41 kg
Mounting method	Wall-mounting bracket
Topology	Transformerless
Degree of protection	IP66
Night power consumption	< 7 W
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 mm^2)
AC connection type	OT or DT terminal (35-50 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, 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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