SG125CX-P3

HIGH YIELD

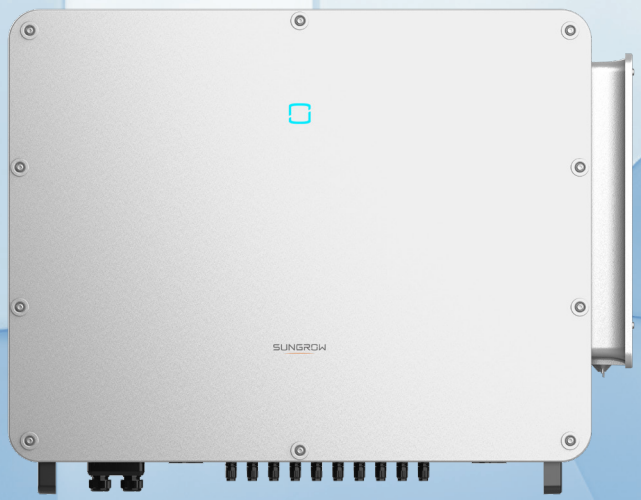
- Higher current input, adaptable to all PV modules for more design flexibility
- Global MPPT scanning, increasing generation yield by over 2%
- Intelligent PID recovery function

SMART MANAGEMENT

- Air duct self-cleaning, reduced maintenance and increased O&M efficiency
- IP66 protection and C5 Anti-corrosion, suitable for various harsh environments
- High-precision string detection and I-V diagnosis, Module-Level Insulation Positioning

SAFE AND DURABLE

- AFCI 3.0+, intelligent DC arc interrupter, with a detection range of 600m
- Active fault identification, intelligent string-level protection switch, ensuring equipment safety
- PV- Ground Fault Protection



Type designation	SG125CX-P3
Input (DC)	
Recommended max. PV input power	198 kWp
Max. PV input voltage*	1100 V
Min. PV input voltage / Startup input voltage	180 V / 200 V
Rated PV input voltage	600 V
MPPT voltage range**	180 V – 1000 V
No. of independent MPP inputs	10
No. of PV strings per MPPT	2
Max. PV input current	400 A (40 A * 10)
Max. DC short-circuit current	500 A (50 A * 10)
Max. current for DC connector	30 A
Output (AC)	
Rated AC output power	125 kW
Max. AC output apparent power	125 kVA
Max. AC output current (at 220V)	189.9 A
Rated AC output current (at 230V)	181.1 A
Rated AC voltage	3 / N / PE, 220 V / 380 V; 230 V / 400 V
AC voltage range	320 V – 480 V
Rated grid frequency	50 Hz / 60 Hz
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz
Harmonic (THD)	< 2 % (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	98.5 %
European efficiency	98.3 %
Protection & function	
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
General data	
Dimensions (W * H * D)	1025 mm * 795 mm * 360 mm
Weight	≤ 88 kg
Mounting method	Wall-mounting bracket
Topology	Transformerless
Degree of protection	IP66
Night power consumption	< 5 W
Corrosion	C5
Operating ambient temperature range	- 30 °C – 60 °C
Allowable relative humidity range (non-condensing)	0 – 95 %
Cooling method	Smart forced air cooling
Max. operating altitud	3000 m
Display	LED, Bluetooth + APP
Communication	RS485 / WLAN (optional) / Ethernet (optional)
DC connection type	MC4 (4 - 6 mm^2)
AC connection type	OT / DT terminal (Max. 240 mm^2)
AC cable specification	Outside diameter 30 ~ 60 mm
Grid compliance	IEC 62109-1, EN/IEC 61000-6-1 / 2 / 3 / 4, IEC 61727, IEC 62116, EN 50549-1 / 2, UTE C15-712-1, VDE V 0126-1-1, VDE-AR-N 4105:2018, VFR 2019, NC RfG, G99, UNE 217002, NTS, CEI 0-21 2019,CEI0-16 2019, NRS-097-2-1, 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