

10 Appendix

10.1 Technical Data

Parameters	SG80CX-P3	SG110CX-P3	SG125CX-P3
Input (DC)			
Max. PV input power	120 kWp	150 kWp	198 kWp
Max. PV input voltage		1100 V	
Min. PV input voltage / Startup input voltage		180 V / 200 V	
Rated input voltage		600 V	
MPPT operating voltage range		180 V – 1000 V	
MPP voltage range for rated power		550 V – 850 V	
No. of independent MPP trackers		10	
No. of PV strings per MPP tracker		2	
Max. PV input current		400 A (40 A × 10)	
Max. current for input connector		30 A	
Max. DC short-circuit current		500 A (50 A × 10)	
Output (AC)			

Parameters	SG80CX-P3	SG110CX-P3	SG125CX-P3
Rated AC output power	80 kW ①	100 kW ①	125 kW ①
Max. AC output apparent power	88 kVA ①	110 kVA ①	125 kVA ①
Max. AC output current	133.7 A @ 380 V 127.0 A @ 400 V 122.4 A @ 415 V	167.1 A @ 380 V 158.8 A @ 400 V 153.0 A @ 415 V	189.9 A @ 380 V 180.4 A @ 400 V 173.9 A @ 415 V
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V		
AC voltage range	320 V – 480 V		
Rated grid frequency / 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%	98.5%	98.5%
European efficiency	98.3%	98.3%	98.3%
Protection & function			
Grid monitoring	Yes		
DC reverse polarity protection	Yes		

Parameters	SG80CX-P3	SG110CX-P3	SG125CX-P3
AC short-circuit protection		Yes	
Leakage current protection		Yes	
Surge protection		DC Type I+ II / AC Type II	
DC switch		Yes	
Arc fault circuit interrupter (AFCI)		Yes	
PID recovery function		Yes	
RSD compatibility ②		Optional	
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		< 4 W	
Operating ambient temperature range		-30°C to 60°C	
Allowable relative humidity range (non-condensing)		0% – 100%	

Parameters	SG80CX-P3	SG110CX-P3	SG125CX-P3
Cooling method	Smart forced air cooling		
Max. operating altitude	4000 m 3000 m derating		
Noise(Typical)	65 dB(A)		
Display	LED, Bluetooth + APP		
Communication	RS485 / WLAN (optional) / Ethernet (optional)		
DC connection type	MC4 (Max. 6 mm ²)		
AC connection type	OT / DT terminal (70~240 mm ²)		
Compliance	IEC EN 62109-1/-2; IEC 60529; IEC 61000-6-1/-2/-3/-4; EN55011; CISPR 11; IEC 63027; EN 50549-1-10/-2-10; IEC 61727; IEC 62116; IEC 61683; EN 50530; IEC 60068-1/-2/-14/-27/-30/-64; IEC/EN 61000-3-11/12; IEC 62920; VDE4110; VDE4120; NC RFG; G99; CEI 0-16; CEI 0-21; VDE0126; NTS UNE217001/217002; NTS 631; IEC60947.2; IEC 62910		

Note(1): Input voltage exceeding the MPPT operating voltage range triggers inverter protection

① Can operate at full power under 415Vac and 45°C when MPPT voltage is not less than 630V.

② For RSD compatibility, please consult Sungrow before placing an order.

10.2 Wiring Distance of DI Dry Contact

The wiring distance between DI dry contact terminals must meet the requirements in the table below. The wiring distance L is the total length of all DI signal cables.

$$L = 2 \sum_{k=1}^n L_k$$

L_k refers to the cable length in one direction between the DI dry contact terminal of the k^{th} inverter and the corresponding terminal of the $(k-1)^{\text{th}}$ inverter.