Profitable

- Up to 1 megawatt system power as standard
- Significantly reduced specific price thanks to increased power
- Maximum yields with low system costs

Durable

- Full nominal power in continuous operation at ambient temperatures up to 50 °C
- Optimized for extreme climatic conditions between −40 °C and 62 °C
- Active temperature management with OptiCool™

Flexible

- Wide DC input voltage range for flexible use of various module configurations
- Perfectly adjusted for the temperature-dependent behavior of PV arrays

Versatile

- All grid management functions are included, prepared for "Q at Night" including pure reactive power operation
- Customized computer platform for optimal monitoring and control of inverters

SUNNY CENTRAL
800CP XT / 850CP XT / 900CP XT

The extended CP: peak output up to 1 megawatt

For even more power: With its extended functions, the new Sunny Central CP XT series is now even more powerful. The reduced specific price, meaning that maximum yields are achieved with lower system costs. The Sunny Central CP XT is also optimized for cold temperatures down to −40 °C and with full nominal power in continuous operation up to 50 °C. The inverter includes all grid management functions and is prepared for Q at Night. The tailor-made computer platform allows for optimal monitoring and control.

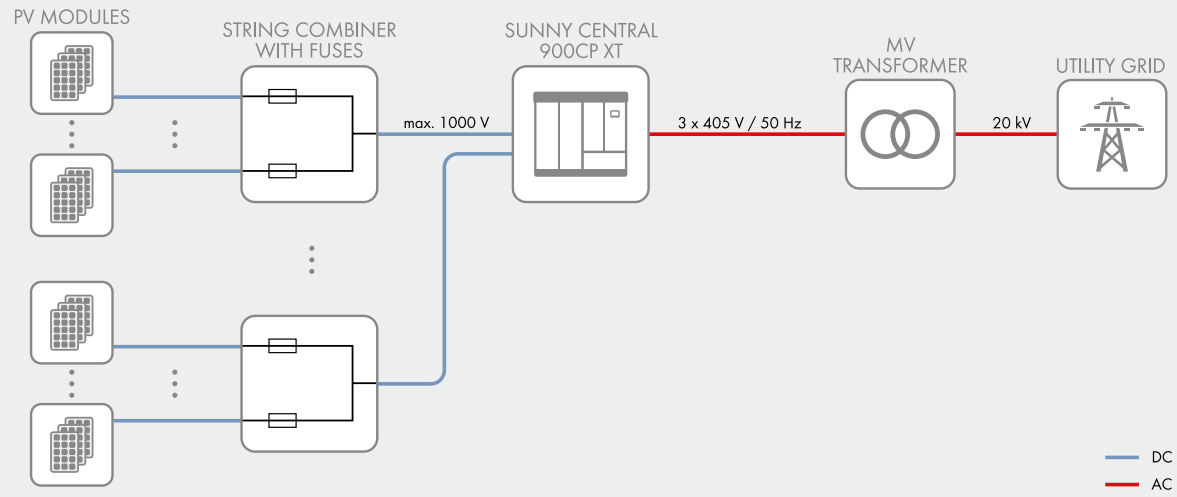
SUNNY CENTRAL
800CP XT / 850CP XT / 900CP XT

Technical Data	Sunny Central 800CP XT	Sunny Central 850CP XT
Input (DC)		
Max. DC power (@ cos φ =1)	898 kW	954 kW
Max. input voltage	1,000 V	1,000 V
V_{MPP_min} at $I_{MPP} < I_{DCmax}$	530 V	568 V
MPP voltage range (@ 25°C / @ 50°C at 50 Hz)[1, 2]	641 to 850 V[3] / 583 to 850 V[3]	681 to 850 V[3] / 625 to 850 V[3]
MPP voltage range (@ 25°C / @ 50°C at 60 Hz)[1, 2]	641 to 850 V[3] / 583 to 850 V[3]	681 to 850 V[3] / 625 to 850 V[3]
Rated input voltage	641 V	681 V
Max. input current	1,400 A	1,400 A
Max. DC short-circuit current	2,500 A	2,500 A
Number of independent MPP inputs	1	1
Number of DC inputs	9	9
Output (AC)		
Rated power (@ 25°C) / nominal AC power (@ 50°C)	880 kVA / 800 kVA	935 kVA / 850 kVA
Nominal AC voltage / nominal AC voltage range	360 V / 324 V to 414 V	386 V / 348 V to 443 V
AC power frequency / range	50 Hz, 60 Hz / 47 Hz to 63 Hz	50 Hz, 60 Hz / 47 Hz to 63 Hz
Rated power frequency / rated grid voltage	50 Hz / 360 V	50 Hz / 386 V
Max. output current / max. total harmonic distortion	1,411 A / 0.03	1,411 A / 0.03
Power factor at rated power / displacement power factor adjustable	1 / 0.9 leading to 0.9 lagging	
Feed-in phases / connection phases	3 / 3	3 / 3
Efficiency[4]		
Max. efficiency / European efficiency / CEC efficiency	98.6% / 98.4% / 98.5%	98.6% / 98.4% / 98.5%
Protective devices		
Input-side disconnection device	Motor-driven load-break switch	Motor-driven load-break switch
Output-side disconnection device	AC circuit breaker	AC circuit breaker
DC overvoltage protection	Type I surge arrester	Type I surge arrester
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	Lightning Protection Level III
Stand-alone grid detection active / passive	● / –	● / –
Grid monitoring	●	●
Ground fault monitoring / remote-controlled ground fault monitoring	○ / ○	○ / ○
Insulation monitoring	○	○
Surge arrester for auxiliary power supply	●	●
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	I / III
General data		
Dimensions (W / H / D)	2,562 / 2,272 / 956 mm (101 / 89 / 38 inches)	
Weight in kg	1,900 kg / 4,200 lb	1,900 kg / 4,200 lb
Operating temperature range	−25°C to +62°C / −13°F to +144°F	
Extended operating temperature range	○ (−40°C to 62°C / −40°F to 144°F)	
Noise emission[5]	64 dB(A)	63 dB(A)
Max. self-consumption (operation)[6] / self-consumption (night)	1,950 W / < 100 W	1,950 W / < 100 W
External auxiliary supply voltage	230 V / 400 V (3 / N / PE)	230 V / 400 V (3 / N / PE)
Cooling concept	OptiCool	OptiCool
Degree of protection: electronics / connection area (according to IEC 60529) / according to IEC 60721-3-4	IP54 / IP43 / 4C2, 4S2	IP54 / IP43 / 4C2, 4S2
Application in unprotected outdoor environments / indoor	● / ○	● / ○
Maximum permissible value for relative humidity (non-condensing)	15% to 95%	15% to 95%
Maximum operating altitude above MSL 2,000 m / 4,000 m	● / ○	● / ○
Fresh air consumption (inverter)	3,000 m³/h	3,000 m³/h
Features		
DC connection / AC connection	Ring terminal lug / ring terminal lug	
Display	HMI touch display	
Communication / protocols	Ethernet (optical fiber optional), Modbus	
DC current monitoring (Zone monitoring / String monitoring)	○ / ○	
SC-COM / Plant monitoring	● / ○ (via Sunny Portal)	
Color enclosure / door / base / roof	RAL 9016 / 9016 / 7004 / 7004	
Guarantee: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	
Configurable grid management functions	Power reduction, reactive power setpoint, dynamic grid support (e.g. LVRT)	
Certificates and approvals (more available on request) ● Standard features ○ Optional features – Not available	EN 61000-6-2, EN 61000-6-4, EMC conformity, CE conformity, BDEW-MSRL / FGW / TR8, Arrêté du 23/04/08, R.D. 1663 / 2000, R.D. 661 / 2007, P.O. 12.3 / IEEE 1547[7]	
Type designation	SC 800CP-10	SC 850CP-10

1) At 1.05 $U_{AC, nom}$ and cos φ = 1
2) Further AC voltages, DC voltages and power classes can be configured (for more detailed information, see technical information at www.SMA.de)
3) up to 950 V on request
4) Efficiency measured without internal power supply
5) Sound pressure level at a distance of 10 m
6) Self-consumption at rated operation
7) Designed and type-tested in accordance with IEEE 1547, serial tests optional available

Technical Data	Sunny Central 900CP XT	
Input (DC)		
Max. DC power (@ cos φ =1)	1,010 kW	
Max. input voltage	1,000 V	
V_{MPP_min} at $I_{MPP} < I_{DCmax}$	596 V	
MPP voltage range (@ 25°C / @ 50°C at 50 Hz)[1, 2]	722 to 850 V[3] / 656 to 850 V[3]	
MPP voltage range (@ 25°C / @ 50°C at 60 Hz)[1, 2]	722 to 850 V[3] / 656 to 850 V[3]	
Rated input voltage	722 V	
Max. input current	1,400 A	
Max. DC short-circuit current	2,500 A	
Number of independent MPP inputs	1	
Number of DC inputs	9	
Output (AC)		
Rated power (@ 25°C) / nominal AC power (@ 50°C)	990 kVA / 900 kVA	
Nominal AC voltage / nominal AC voltage range	405 V / 365 V to 465 V	
AC power frequency / range	50 Hz, 60 Hz / 47 Hz to 63 Hz	
Rated power frequency / rated grid voltage	50 Hz / 405 V	
Max. output current / max. total harmonic distortion	1,411 A / 0,03	
Power factor at rated power / displacement power factor adjustable	1 / 0.9 leading to 0.9 lagging	
Feed-in phases / connection phases	3 / 3	
Efficiency[4]		
Max. efficiency / European efficiency / CEC efficiency	98.6% / 98.4% / 98.5%	
Protective devices		
Input-side disconnection device	Motor-driven load-break switch	
Output-side disconnection device	AC circuit breaker	
DC overvoltage protection	Type I surge arrester	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Stand-alone grid detection active / passive	● / –	
Grid monitoring	●	
Ground fault monitoring / remote-controlled ground fault monitoring	○ / ○	
Insulation monitoring	○	
Surge arrester for auxiliary power supply	●	
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	
General data		
Dimensions (W / H / D)	2,562 / 2,272 / 956 mm (101 / 89 / 38 inches)	
Weight in kg	1,900 kg / 4,200 lb	
Operating temperature range	–25°C to 62°C / –13°F to 144°F	
Extended operating temperature range	○ (–40°C to 62°C / –40°F to 144°F)	
Noise emission[5]	64 db(A)	
Max. self-consumption (operation)[6] / self-consumption (night)	1,950 W / < 100 W	
External auxiliary supply voltage	230 V / 400 V (3 / N / PE)	
Cooling concept	OptiCool	
Degree of protection: electronics / connection area (according to IEC 60529) / according to IEC 60721-3-4	IP54 / IP43 / 4C2, 4S2	
Application in unprotected outdoor environments / indoor	● / ○	
Maximum permissible value for relative humidity (non-condensing)	15% to 95%	
Maximum operating altitude above MSL 2,000 m / 4,000 m	● / ○	
Fresh air consumption (inverter)	3000 m³/h	
Features		
DC connection / AC connection	Ring terminal lug / ring terminal lug	
Display	HMI touch display	
Communication / protocols	Ethernet, Modbus	
DC current monitoring (Zone monitoring / String monitoring)	○ / ○	
SC-COM / Plant monitoring	● / ○ (via Sunny Portal)	
Color enclosure / door / base / roof	RAL 9016 / 9016 / 7004 / 7004	
Guarantee: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	
Configurable grid management functions	Power reduction, reactive power setpoint, dynamic grid support (e.g. LVRT)	
Certificates and approvals (more available on request) ● Standard features ○ Optional features – Not available	EN 61000-6-2, EN 61000-6-4, EMV-Konformität, CE-Konformität, BDEW-MSRL / FGW / TR8, Arrêté du 23/04/08, R.D. 1663 / 2000, R.D. 661 / 2007, P.O. 12.3 / IEEE 1547[7]	
Type designation	SC 900CP-10	

PLANT DIAGRAM



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