

SUNNY CENTRAL 1000CP XT



SC 1000CP-10

Economical

- Up to 1 MW power class
- Significant savings in balance of system components due to 1,000 V operating voltage
- Outdoor enclosure simplifies deployment

Efficient

- Highest efficiency in its class
- Full nominal power at ambient temperatures up to 50 °C
- 10% additional power for continuous operation at ambient temperatures up to 25 °C

Flexible

- Wide DC input voltage for flexible use of various module configurations
- Optional extended input range up to 1,100 V
- Optional DC disconnects

Versatile

- Powerful grid management functions (incl. LVRT and Frequency Ride Through)
- Optimized for extreme climate conditions including -40 °C to 62 °C

SUNNY CENTRAL 1000CP XT

Unmatched performance for utility-scale PV

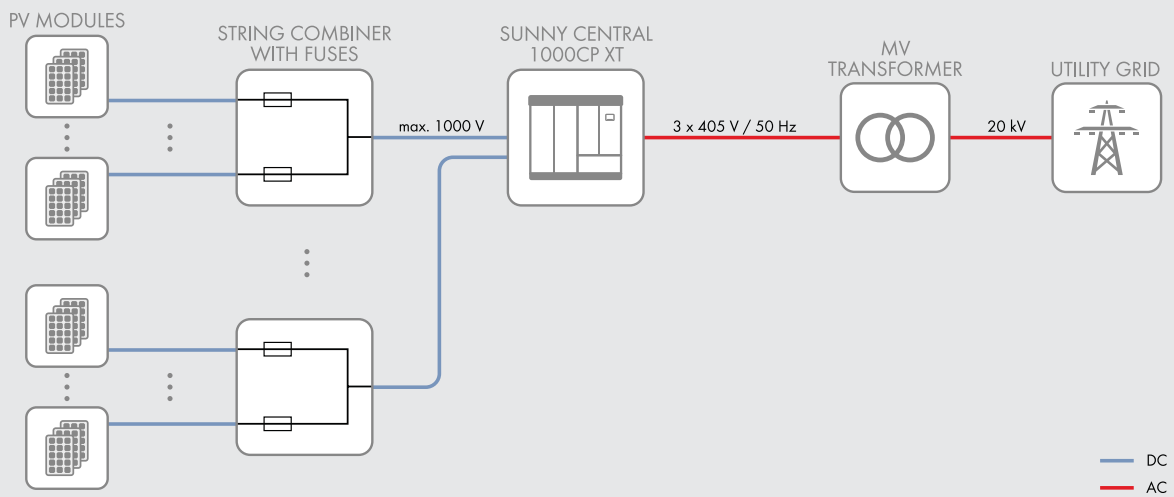
With its extended features, the new Sunny Central CP XT series maximizes both energy production and project investment returns through innovative technology and an extensive suite of integrated grid management functions. The Sunny Central CP XT is also optimized for cold temperatures down to -40 °C and provides full nominal power in continuous operation up to 50 °C. The Sunny Central CP XT can also be integrated with the Power Plant Controller as well as the Medium-Voltage Power Platform for utility-scale applications.

SUNNY CENTRAL 1000CP XT

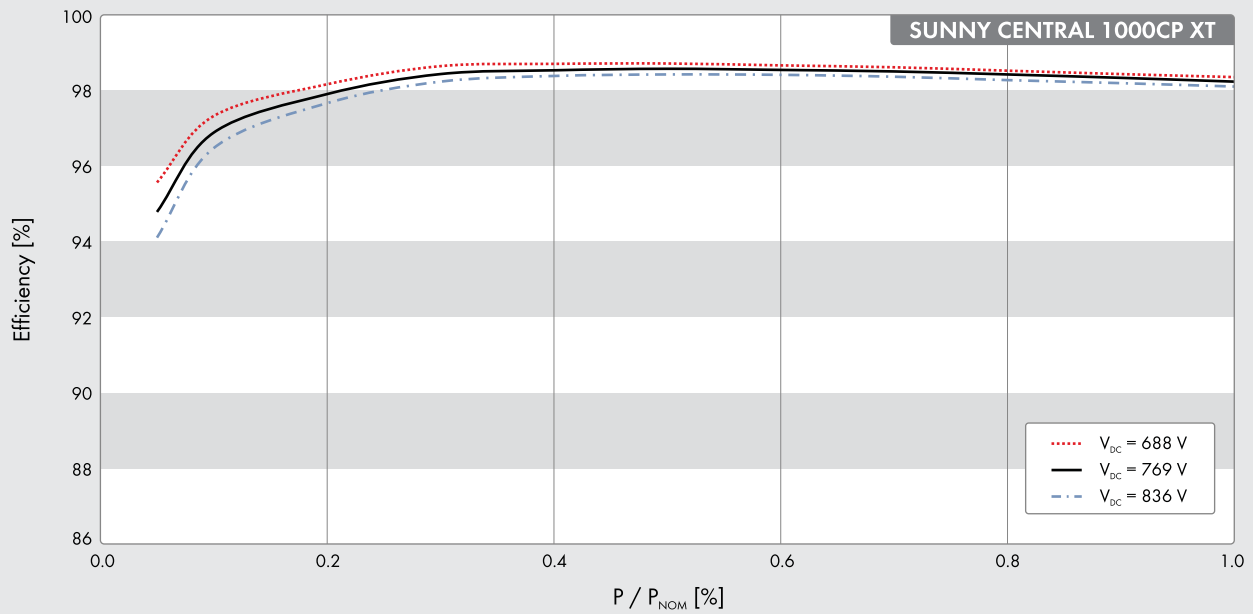
Technical Data	Sunny Central 1000CP XT
Input (DC)	
Max. DC power (@ $\cos \varphi = 1$)	1,122 kW
Max. input voltage	1,000 V
V_{MPP_min} at $I_{MPP} < I_{DCmax}$	596 V
MPP voltage range (@ 25°C / @ 40°C / @ 50°C) ^{1,2}	688 to 850 V / 625 to 850 V / 596 to 850 V
Rated input voltage	688 V
Max. input current	1,635 A
Number of independent MPP inputs	1
Number of DC inputs	8
Output (AC)	
AC power (@ 25°C / @ 40°C / @ 50°C)	1,100 kVA / 1,000 kVA / 900 kVA
Nominal AC voltage / nominal AC voltage range	405 V / 365 to 465 V
AC power frequency / range	50 Hz, 60 Hz / 47 ... 63 Hz
Rated power frequency / rated grid voltage	50 Hz / 405 V
Max. output current / max. total harmonic distortion	1,568 A / 0,03
Power factor at rated power / displacement power factor adjustable	1 / 0.9 overexcited to 0.9 underexcited
Feed-in phases / connection phases	3 / 3
Efficiency³	
Max. efficiency / European efficiency / CEC efficiency	98.7% / 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	○ / ○
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	1950 kg / 4300 lb
Operating temperature range	-25 ... 62°C / -13 ... 144°F
Extended operating temperature range	○ (-40 ... 62°C / -40 ... 144°F)
Noise emission ⁴	68 db(A)
Max. self-consumption (operation) ⁵ / self-consumption (night)	1900 W / < 100 W
External auxiliary supply voltage	230 / 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 ... 95 %
Maximum operating altitude above MSL 2,000 m	●
Fresh air consumption (inverter)	3000 m ³ /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)	EN 61000-6-2, EN 61000-6-4, EMC-conformity, CE-conformity, BDEW-MSRL / FGW / TR8, Arrêté du 23/04/08, R.D. 1.663 / 2000, R.D. 661 / 2007
● Standard features ○ Optional features – Not available	
Type designation	SC 1000CP-10

- 1) At $1.05 U_{AC, nom}$ and $\cos \varphi = 1$
- 2) Further AC voltages, DC voltages and power classes can be configured (for more detailed information, visit SMA-America.com)
- 3) Efficiency measured without internal power supply
- 4) Sound pressure level at a distance of 10 m
- 5) Self-consumption at rated operation

PLANT DIAGRAM



EFFICIENCY CURVE





SC1000CPXCDUS150913 SMA and Sunny Central are registered trademarks of SMA Solar Technology AG. Text and illustrations reflect the current state of the technology at the time of publication. Subject to technical changes. No liability shall be accepted for printing errors. Printed on chlorine-free paper.

Toll Free +1 888 4 SMA USA
www.SMA-America.com

SMA America, LLC