

SUNNY CENTRAL 800CP-JP / 1000CP-JP

SC 800CP-JP-10 / SC 1000CP-JP-10



Outdoor

- Compact and weatherproof enclosure for outdoor installation
- OptiCool™ cooling system for ambient temperatures of up to 62°C

Efficient

- Peak efficiency of 98.6 %
- Higher profit thanks to low self-consumption

Durable

- Resistant to salt corrosion
- Resists sand and dust
- Suitable for all climate zones

Reliable

- High operational safety and easy to maintain
- Powerful grid management functions (including FRT)

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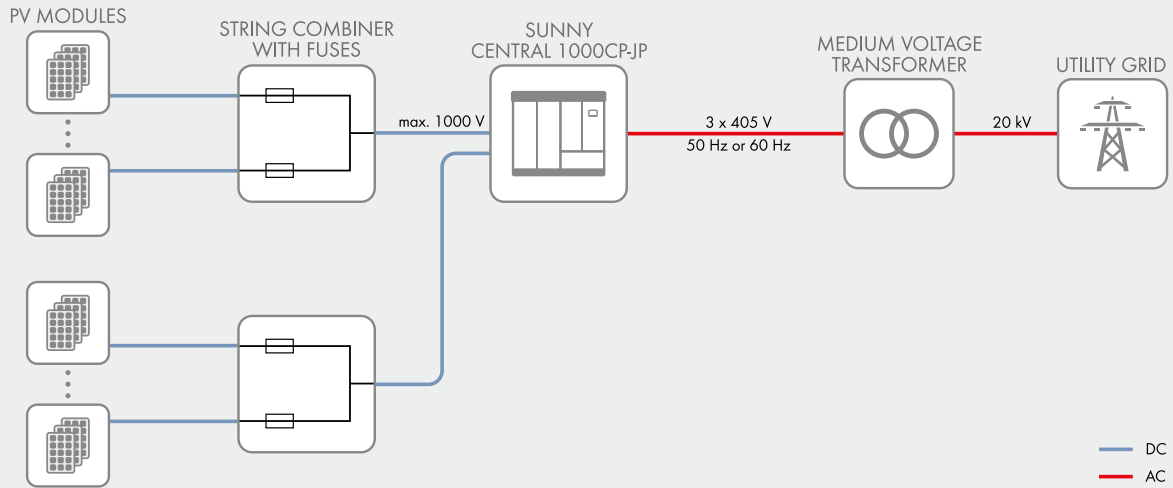
The perfect solution for PV power plants in Japan

The durable and high-performance Sunny Central 800CP-JP/1000CP-JP guarantees maximum yields in all climate zones. This has been clearly demonstrated in numerous stress tests. With the integrated OptiCool™ cooling system, the Sunny Central 800CP-JP/1000CP-JP can continue to feed solar power into the power distribution grid even at ambient temperatures up to 62°C. The compact and durable enclosure for the equipment allows easy and uncomplicated outdoor installation – without complex enclosures and external cooling systems. This significantly reduces costs and self-consumption. With its comprehensive grid management functions, the Sunny Central 800CP-JP/1000CP-JP already fulfills future requirements for grid operators. The Sunny Central 800CP-JP is also available with the option noise reduction.

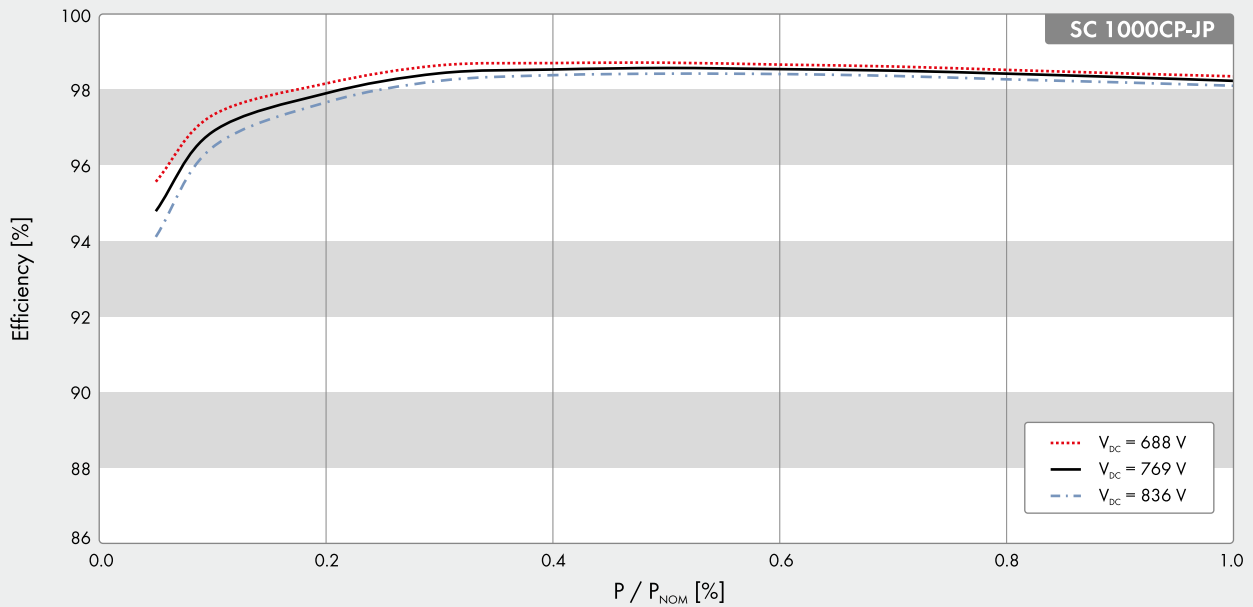
SUNNY CENTRAL 800CP-JP / 1000CP-JP

Technical Data	Sunny Central 800CP-JP	Sunny Central 1000CP-JP*
Input (DC)		
Max. convertable DC power (at $\cos \varphi = 1$)	898 kW	1122 kW
Max. input voltage	1000 V	1000 V
MPP voltage range (50 Hz) / MPP voltage range (60 Hz)	583 V to 850 V ¹⁾ / 583 V to 850 V ¹⁾	625 V to 850 V ¹⁾ / 625 V to 850 V ¹⁾
DC voltage range (50 Hz) / DC voltage range (60 Hz)	530 V to 850 V / 530 V to 850 V	596 V to 850 V / 596 V to 850 V
Rated input voltage	641 V	688 V
Max. input current	1400 A	1635 A
Max. DC short-circuit current	2500 A	2500 A
V_{MPPmin} at $I_{MPP} < I_{DCmax}$	530 V (50 Hz) / 530 V (60 Hz)	596 V (50 Hz) / 596 V (60 Hz)
Number of independent MPP inputs	1	1
Number of DC inputs	9	9
Output (AC)		
Rated power (at 25 °C / at 50 °C)	880 kVA / 800 kVA	
AC power (at 25 °C / at 40 °C / at 50 °C)		1100 kVA / 1000 kVA / 900 kVA
AC nominal voltage / AC nominal voltage range	360 V / 324 V to 414 V	405 V / 365 V to 465 V
AC frequency / AC frequency range	50 Hz, 60 Hz / 47 Hz to 63 Hz	50 Hz, 60 Hz / 47 Hz to 63 Hz
Rated frequency / rated grid voltage	50 Hz / 360 V	50 Hz / 405 V
Max. output current	1411 A	1568 A
Max. THD	< 3 %	< 3 %
Power factor at rated power / adjustable shift factor	1 / 0.9 overexcited to 0.9 underexcited	1 / 0.9 overexcited to 0.9 underexcited
Feed-in phases / connection phases	3 / 3	3 / 3
Efficiency²⁾		
Max. efficiency / European efficiency / CEC efficiency	98.6 % / 98.4 % / 98.5 %	98.7% / 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
Grid monitoring	●	●
Stand-alone grid detection active / passive	● / ●	● / ●
Ground fault monitoring / remote-controlled ground-fault monitoring	○ / ○	○ / ○
Insulation monitoring	○	○
Surge arrester for communication interface / string current monitoring	○ / ○	○ / ○
Surge arrester for auxiliary supply	Type I and type II surge arrester	Type I and type II surge arrester
Protection class (according to IEC 62109-1) / overvoltage category (according to IEC 60664-1)	I / III	I / III
General data		
Dimensions (W / H / D)	2562 / 2272 / 956 mm (101 / 89 / 38 inches)	
Weight	approx. 1800 kg	approx. 1800 kg
Operating temperature range	-25 °C to 62 °C / -13 °F to 144 °F	-25 °C to 62 °C / -13 °F to 144 °F
Extended operating temperature range	○ (-40 °C to 62 °C / -40 °F to 144 °F)	○ (-40 °C to 62 °C / -40 °F to 144 °F)
Noise emission ³⁾	64 db(A)	68 db(A)
Max. self-consumption (operation) ⁴⁾ / self-consumption (night)	1950 W / < 100 W	1950 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	In unprotected outdoor environments
Maximum permissible value for relative humidity (non-condensing)	15% to 95%	15% to 95%
Maximum operating altitude above MSL	2000 m	2000 m
Fresh air consumption (inverter)	3000 m ³ /h	3000 m ³ /h
Features		
DC connection / AC connection	Ring terminal lug / ring terminal lug	Ring terminal lug / ring terminal lug
Display	HMI touch display	HMI touch display
Communication / protocols	Ethernet (optical fiber optional), Modbus	Ethernet (optical fiber optional), Modbus
DC current monitoring (Zone monitoring / String monitoring)	○ / ○	○ / ○
Color enclosure / door / base / roof	RAL 9016 / 9016 / 7004 / 7004	RAL 9016 / 9016 / 7004 / 7004
Configurable grid management functions	Power reduction, reactive power setpoint, dynamic grid support (e.g. LVRT)	
Certificates and approvals (additional on request)	EN 61000-6-2, EN 61000-6-4, CE-conformity, Renewable Energy Source Act-compliant, BDEW-MSRL / JETGR0002-1-2.0 (2011) / JETGR0003-1-2.0 (2011) ⁵⁾ , Arrêté du 23/04/08, R.D. 1663 / 2000, R.D. 661 / 2007	
● Standard features ○ Optional features – Not available		
* all the data for SC 1000 CPJP are provisional		
Type designation	SC 800CP-10-JP	SC 1000CP-10-JP

PLANT DIAGRAM



EFFICIENCY CURVE



- 1) At $1.05 V_{AC, nom}$ and $\cos \varphi = 1$ and Nominal power P_{nom}
- 2) Efficiency measured without internal power supply
- 3) Sound pressure level at a distance of 10 m
- 4) Self-consumption at rated operation
- 5) Type-tested by the manufacturer in accordance with JET (Japan Electrical Safety & Environment Technology Laboratories Foundation)

