

SCHEDE TECNICHE INVERTER

Impianto fotovoltaico "Green Power for Rail" - Stazione Elettrica di Villanova Cepagatti (PE)

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	CODIFICA ELABORATO APPALTATORE			Timbro e firma Appaltatore	Logo Appaltatore	
						

Storia delle revisioni

Rev. 00	del	Prima emissione.
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Elaborato		Esaminato			Accettato
C & G Engineering Service	M. Penazzo	C & G Engineering Service	M. Penazzo	I. Giacon	ING/TAM

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INGECON

SUN

PowerMax M Series
400 V_{ac}TRANSFORMERLESS
MULTI-MPPT
CENTRAL
INVERTERS500TL M400 DCAC Outdoor / 750TL M400 DCAC Outdoor /
1000TL M400 DCAC Outdoor

The central multi-MPPT inverter model, in any of its configurations, can be supplied with either two, three or four independent power blocks. Each of these modules has its own maximum power point tracking system (MPPT), delivering optimum power output levels in each specific case.

It is also possible to connect up to two inverters, with four power blocks each, to the same medium voltage transformer winding.

DC and AC supplies in the same cabinet

The input and output lines are integrated into the same cabinet, facilitating maintenance and repair work, whilst still maintaining the highest level of safety.

Maximum protection

These three phase inverters are equipped with a manual DC load break switch and a DC automatic contactor for each power block, in order to decouple the PV generator from the inverter. Optionally, the inverters can be supplied with an AC thermal magnetic breaker with door control, in addition to fuses and current monitoring.

Enhanced functionality

This new INGECON® SUN PowerMax range features a revamped, improved enclosure which, together with its innovative air cooling system, makes it possible to increase the ambient operating temperature to deliver its rated power up to 45 °C.

Maximum efficiency values

Through the use of innovative electronic conversion topologies, efficiency values of up to 98.8% can be achieved. Furthermore, an advanced MPPT algorithm makes it possible to harness the maximum energy from the PV array at all times, even in difficult situations, such as scattered clouds and partial shading.

A complete range of equipment for all types of projects

Versions available:

- Indoor inverters with integrated DCAC cabinet.
- Indoor inverters with DC cabinet.
- Outdoor inverters with integrated DCAC cabinet.
- Symmetrical indoor inverters, with the connection cabinet on the opposite side, to make it possible to install two inverters facing each other, with a common power supply point.



INGECON

SUN

PowerMax M Series 400 Vac

500TL M400 DCAC Outdoor / 750TL M400 DCAC Outdoor / 1000TL M400 DCAC Outdoor

Long-lasting design

The inverters have been designed to guarantee a service life of more than 20 years, as demonstrated by the stress tests they are subjected to. Standard 5 year warranty, extendable for up to 25 years.

Grid support

The INGECON® SUN PowerMax family has been designed to comply with the grid connection requirements in different countries, contributing to the quality and stability of the electricity system. These inverters therefore feature a low voltage ride-through capability, and can deliver reactive power and control the active power delivered to the grid.

Ease of maintenance

Easily replaceable modular power blocks for shorter maintenance times.

Easy to operate

The INGECON® SUN PowerMax inverters feature an LCD screen for the simple and convenient monitoring of the inverter status and a range of internal variables. The display also includes a number of LEDs to show the inverter operating status with warning lights to indicate any incidents. All this helps to simplify and facilitate maintenance tasks.

Monitoring and communication

RS-485 communications supplied as standard. Ethernet, Bluetooth and GSM / GPRS are also available. The following applications are included at no extra cost: INGECON® SUN Manager, INGECON® SUN Monitor and its Smartphone version iSun Monitor, available on the App Store. These applications are used for monitoring and recording the inverter's internal operating variables through the Internet (alarms, real time production, etc.), in addition to the historical production data.

PROTECTIONS

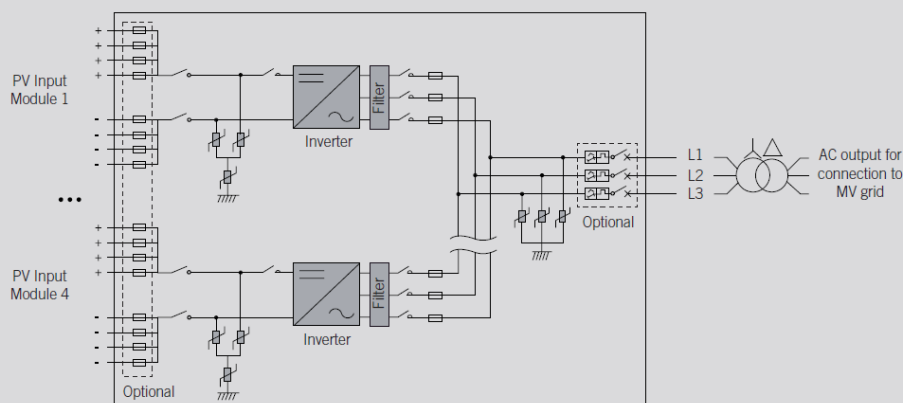
For each power module:

- Reverse polarity.
- Short-circuits and overloads at the output.
- Anti-islanding system with automatic disconnection.
- DC load breaker with door control.
- DC isolation monitor.
- 3 pairs of DC fuse-holders per power block.
- DC and AC surge arresters, type 2.
- DC contactor for the automatic disconnection of the inverter from the PV array.

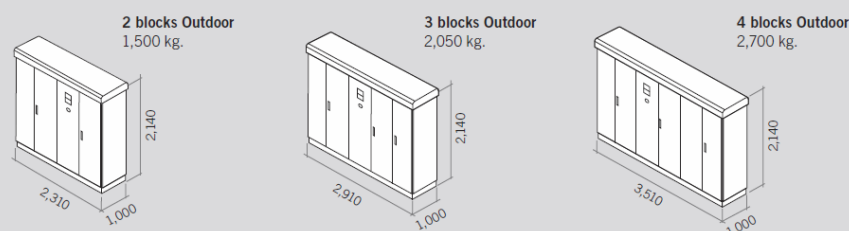
OPTIONAL ACCESSORIES

- AC circuit breaker with door control.
- AC circuit breaker monitoring kit.
- Inter-inverter communication via Ethernet, Bluetooth or GSM / GPRS.
- Insulation failure AC.
- Kit for operating at ambient temperatures of -30 °C.
- Monitoring of the group currents at the DC input.
- Remote tripping of the AC protection.
- DC fuses.
- Wattmeter on the AC side.
- Low voltage ride-through kit.
- Extendable up to 4 pairs of fuse holders per power block.

PowerMax M DCAC



Size and weight (mm)



INGECON

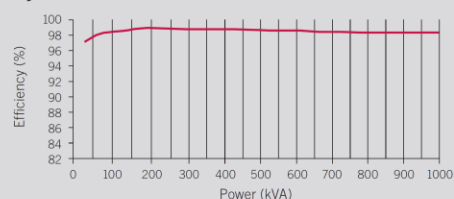
SUN

PowerMax M Series 400 V_{ac}

	500TL M400 DCAC Outdoor	750TL M400 DCAC Outdoor	1000TL M400 DCAC Outdoor
Input (DC)			
Recommended PV array power range ⁽¹⁾	515.8 - 662.9 kWp	773.7 - 994.4 kWp	1,031.6 - 1,325.7 kWp
Voltage Range MPP	581 - 820 V	581 - 820 V	581 - 820 V
Maximum voltage ⁽²⁾	1,050 V	1,050 V	1,050 V
Maximum current	900 A	1,350 A	1,800 A
N° inputs with fuse holders	8	12 (extendable up to 16)	12 (extendable up to 16)
Fuse dimensions ⁽³⁾	63 A / 1,000 V to 400 A / 1,000 V fuses		
Type of connection	Connection to copper bars		
Power blocks	2	3	4
MPPT ⁽⁴⁾	2	3	4
Max. current at each input	From 40 A to 260 A for positive and negative poles		
Input protections			
Overvoltage protections	Type 2 surge arresters		
DC switch	Yes, manual DC switch with door control and automatic DC contactor		
Other protections	Reverse polarity / Insulation failure monitoring / Anti-islanding protection		
Output (AC)			
Power @30 °C / @45 °C ⁽⁵⁾	554.3 kVA / 509.9 kVA	831.4 kVA / 764.9 kVA	1,108.5 kVA / 1,019.8 kVA
Current @30 °C / @45 °C	800 A / 736 A	1,200 A / 1,104 A	1,600 A / 1,472 A
Rated voltage	400 V IT System	400 V IT System	400 V IT System
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Phi Cosine ⁽⁶⁾	1	1	1
Phi Cosine adjustable	Yes. S _{max} =554.3 kVA	Yes. S _{max} =831.4 kVA	Yes. S _{max} =1,108.5 kVA
THD (Total Harmonic Distortion) ⁽⁷⁾	<3%	<3%	<3%
Output protections			
Overvoltage protections	Type 2 surge arresters		
AC breaker	Optional AC circuit breaker with door control, motorized or remote trip		
Anti-islanding protection	Yes, with automatic disconnection (for each power stage)		
Other protections	AC short circuits and overloads		
Features			
Maximum efficiency	99.1%	99.1%	99.1%
Euroefficiency	98.7%	98.7%	98.7%
Stand-by consumption ⁽⁸⁾	60 W	90 W	120 W
Consumption at night	60 W	90 W	120 W
General Information			
Ambient temperature	-20 °C to +55 °C	-20 °C to +55 °C	-20 °C to +55 °C
Relative humidity (non-condensing)	0 - 95%	0 - 95%	0 - 95%
Protection class	IP20	IP20	IP20
Maximum altitude ⁽⁹⁾	3,000 m	3,000 m	3,000 m
Cooling system	Air forced with temperature control (230 V phase + neutral power supply)		
Air flow	2,670 m³/h (fans: 1,000 VA)	4,640 m³/h (fans: 1,300 VA)	5,340 m³/h (fans: 1,500 VA)
Acoustic emission	< 67 dB (A) at 1 m with fans working at maximum power		
Marking	CE		
EMC and security standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12, EN 62109-1, EN 62109-2, IEC62103, EN 50178, FCC Part 15, AS3100		
Grid connection standards	IEC 62116, Arrêté 23-04-2008, CEI 0-16 Ed. III, Terna A68, G59/2, BDEW-Mittelspannungsrichtlinie:2011, P.O.12.3, South African Grid code (ver 2.6), Chilean Grid Code, Romanian Grid Code, Ecuadorian Grid Code, Peruvian Grid code, IEEE 929, Thailand MEA & PEA requirements, IEC61727, UNE 206007-1, ABNT NBR 16149, ABNT NBR 16150, IEEE 1547, IEEE1547.1, GGC&CGC China, DEWA (Dubai) Grid Code, Jordan Grid Code		

Notes: ⁽¹⁾ Depending on the type of installation and geographical location. Data for STC conditions ⁽²⁾ Consider the voltage increase of the 'Voc' at low temperatures ⁽³⁾ For other configurations, consult with Ingeteam ⁽⁴⁾ The MPPT connected to the same transformer through TL inverters must have the same voltage configuration ⁽⁵⁾ For each °C of increase between 30 °C and 45 °C, the output power will be reduced at the rate of 0.57% / °C. Over 45 °C, the output power will be reduced at the rate of 1.8% / °C ⁽⁶⁾ For P_{out}>25% of the rated power ⁽⁷⁾ For P_{out}>25% of the rated power and voltage in accordance with IEC 61000-3-4 ⁽⁸⁾ Consumption from PV field ⁽⁹⁾ Over 1,000 m temperature for rated power is reduced at the rate of 4.5 °C for each 1,000 m.

Efficiency INGECON® SUN 1000TL M400 V_{dc} = 650 V



SUNWAY™ TG 1000V TE STD

STANDARD



Inverter solare trifase con potenza di uscita nominale da 590 kVA a 844 kVA

Progettati per parchi fotovoltaici utility-scale di grandi dimensioni, gli inverter SUNWAY TG offrono tecnologia al vertice della gamma che garantisce la massima densità di potenza, affidabilità e operatività.

La gamma di prodotti SUNWAY TG consente la configurazione ottimale di installazioni FV a terra di medie e grandi dimensioni, riducendo al minimo i costi di impianto e massimizzando la resa.

Conforme CEI 0-16

Three-phase solar inverter rated output power from 590 kVA to 844 kVA

Designed for utility scale large PV plants SUNWAY TG inverters feature best-in-class technology providing the highest power density, reliability and uptime.

SUNWAY TG product range allows the optimal configuration of large ground PV plants providing the lowest system cost and the maximum yield.

Compliant with CEI 0-16

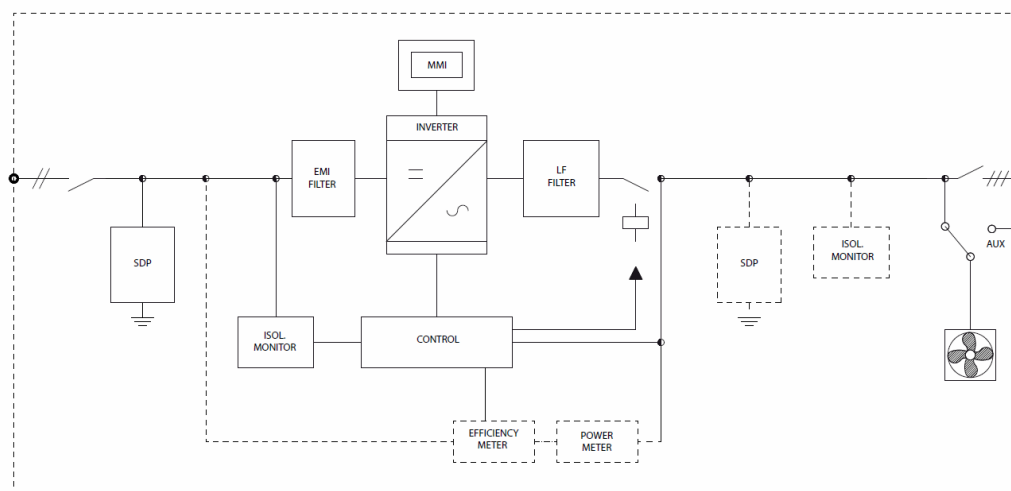
SUNWAY™ TG 1000V TE STD

STANDARD

Caratteristiche tecniche Technical highlights

- Elevatissima efficienza di conversione con singolo stadio di conversione di potenza, ottimizzato per la massima riduzione delle perdite.
- Struttura modulare e industrializzazione delle cabine per la massima affidabilità e facile accesso a tutti i componenti, con conseguente manutenzione semplificata e riparabilità in opera.
- Caratteristiche di rete interattive: LVRT, controllo di potenza reattiva, controllo in feedback di frequenza e tensione in conformità con gli standard europ mondiali piu avanzati.
- Protezione integrata lato CC garantita da sezionatore con bobina di sgancio.
- Protezione integrata contro errori di cablaggio lato CC
- Monitoraggio attivo integrato di isolamento CC (monitoraggio di isolamento CA disponibile come optional).
- Protezione integrata lato CA con distacco automatico al sezionatore
- Integrazione con Portale SunwayPortal per accesso via internet ai dati di produzione. Monitoraggio a distanza e controllo tramite sistemi standard SCADA.
- Modbus integrato su RS485 e TCP-IP su connessione dati Ethernet
- Ingressi integrati per sensori ambientali.
- Compatibile con moduli fotovoltaici che richiedono il collegamento a massa di un polo (positivo o negativo - opzionale).
- Contatore di energia integrato (opzionale).
- Misura in linea del rendimento di conversione (opzionale).
- *Very high conversion efficiency with a single power conversion stage, optimized for minimum losses.*
- *Modular construction and cabinet industrialization for maximum reliability and easy access to all components for maintainability and ease of service on site.*
- *Grid interactive features such as LVRT, reactive power control, frequency and voltage feedback control, in compliance with the most advanced european and world wide standards.*
- *Integrated DC-side protection provided by disconnect switch with release coil.*
- *Integrated miswiring protection on DC side.*
- *Integrated active monitoring of DC isolation (AC isolation monitoring optional).*
- *Integrated AC-side protection with automatic-disconnection on load breaker.*
- *Integration with SunwayPortal for web access to production data. Remote monitoring and control through standard SCADA systems.*
- *Integrated Modbus on RS485 and TCP-IP on Ethernet data connection.*
- *Integrated inputs for environmental sensors.*
- *Compliant with photovoltaic modules requiring one earthed pole (positive or negative pole - optional).*
- *Power Meter in CA (optional).*
- *Conversion efficiency measurement (optional).*

Schema a blocchi Block diagram



SUNWAY™ TG 1000V TE STD
STANDARD

Caratteristiche tecniche <i>Technical features</i>	TG610 - 320 STD	TG610 - 340 STD	TG610 - 360 STD	TG610 - 380 STD
Ingresso DC <i>DC input</i>				
Potenza di picco suggerita del campo fotovoltaico (1) <i>Suggested PV field peak power (1)</i>	675.88 kW	719.8 kW	762.5 kW	802.76 kW
Potenza nominale di ingresso in CC <i>Rated DC input power</i>	571 kW	608 kW	644 kW	678 kW
Massima tensione a vuoto del campo <i>Max. Open-circuit voltage</i>	1000 V	1000 V	1000 V	1000 V
Massima corrente di ingresso in CC <i>Max. DC input current</i>	1044 A	1044 A	1044 A	1044 A
DC Parallel incluso <i>DC Parallel included</i>	No	No	No	No
Max numero di ingressi DC (pos+neg) <i>Max number of DC inputs (pos+neg)</i>	8 + 8	8 + 8	8 + 8	8 + 8
Range di tensione campo fotovoltaico <i>PV field voltage range</i>	495 ÷ 820 V	525 ÷ 820 V	550 ÷ 820 V	580 ÷ 820 V
Uscita AC <i>AC output</i>				
Potenza nominale <i>Rated power</i>	554 kVA @ 50°C	590 kVA @ 50°C	625 kVA @ 50°C	658 kVA @ 50°C
Tensione di rete nominale <i>Rated grid voltage</i>	320 V	340 V	360 V	380 V
Corrente nominale d'uscita AC <i>Rated AC output current</i>	1000 A	1000 A	1000 A	1000 A
Frequenza nominale di rete <i>Rated grid frequency</i>	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Standard Cos φ <i>Standard Cos φ</i>	1 (0.9 lead/lag)	1 (0.9 lead/lag)	1 (0.9 lead/lag)	1 (0.9 lead/lag)
Distorsione armonica (THD) <i>Total Harmonic Distorsion (THD)</i>	< 3%	<3 %	<3 %	< 3%
Efficienza <i>Efficiency</i>				
Rendimento massimo <i>Max Efficiency</i>	98.5 %	98.5 %	98.5 %	98.5 %
Rendimento europeo <i>EU Efficiency</i>	98.1 %	98.1 %	98.2 %	98.2 %
Dati generali <i>General data</i>				
Dimensioni (LxAxP) mm <i>Dimensions (WxHxD) inches</i>	2600x2250x800 102.2"x88.4"x31.4"	2600x2250x800 102.2"x88.4"x31.4"	2600x2250x800 102.2"x88.4"x31.4"	2600x2250x800 102.2"x88.4"x31.4"
Peso <i>Weight</i>	1700 kg 3740 lbs	1700 kg 3740 lbs	1700 kg 3740 lbs	1700 kg 3740 lbs
Temperatura di funzionamento <i>Operating temperature range</i>	-25 ÷ 62 °C -13 ÷ 143.6 °F	-25 ÷ 62 °C -13 ÷ 143.6 °F	-25 ÷ 62 °C -13 ÷ 143.6 °F	-25 ÷ 62 °C -13 ÷ 143.6 °F
Umidità relativa <i>Relative humidity</i>	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing
Livello rumore @ 1m <i>Noise emission @ 1m</i>	75 dB(A)	75 dB(A)	75 dB(A)	75 dB(A)
Tensione isolamento verso terra e tra ingresso ed uscita <i>Insulation voltage to ground and between input and output</i>	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Grado di protezione <i>Degree of protection</i>	IP20	IP20	IP20	IP20
Sistema di raffreddamento <i>Cooling system</i>	Ventilazione forzata Forced air	Ventilazione forzata Forced air	Ventilazione forzata Forced air	Ventilazione forzata Forced air
Consumo aria fresca <i>Fresh air consumption</i>	8000 m³/h	8000 m³/h	8000 m³/h	8000 m³/h
Dispositivi di protezione <i>Protective device</i>				
Protezioni da sovratensioni SPD <i>Overvoltage SPD protection</i>	DC Side: Yes AC Side: Optional	DC Side: Yes AC Side: Optional	DC Side: Yes AC Side: Optional	DC Side: Yes AC Side: Optional
Protezione Termica <i>Thermal protection</i>	Integrated	Integrated	Integrated	Integrated
Rilevamento Guasto a terra <i>Ground fault monitoring</i>	Yes	Yes	Yes	Yes
Perdite <i>Losses</i>				
Perdite in fase di stop <i>Stop mode losses</i>	45 W	45 W	45 W	45 W
Perdite ausiliari <i>Auxiliary consumption</i>	70 W	70 W	70 W	70 W
Perdite sistema di ventilazione <i>Fan losses</i>	1806 W	1806 W	1806 W	1806 W
Conformità alle normative <i>Standard compliance</i>				
Standard EMC ed EMI <i>EMC and EMI standards</i>	IEC 61000-6-4 / IEC 61000-6-2 IEC 61000-6-3 / IEC 61000-6-1			
Standard sulle Armoniche di rete <i>Grid Harmonic standards</i>	IEC 61000-3-2 IEC 61000-3-12			
Standard di sicurezza <i>Safety Standard</i>	EN50178, IEC 62109-1, IEC 62109-2			
Normative allaccio rete <i>Grid standard</i>	CEI 0-16, A.70, BDEW, Arrêté du 23 Avril 2008 RD 1699/2011, RD 661/2007, CQC, IEEE 1547			

Nota/Note: (1) I valori riportati non rappresentano un limite fisico dell'inverter, ma solo un riferimento per il dimensionamento in potenza del generatore. Per dimensionamenti con Ppk/Pac (Potenza di picco / Potenza nominale) maggiore del 130% consultare la divisione pre-sales di Santerno - The values do not represent a physical limit of the inverter but only a reference for the dimensioning of the generator. For specific requirements of the Ppk / Pac (Peak Power / Rated Power) ratio greater than 130%, please refer to Santerno pre-sales department.

SUNNY CENTRAL 500CP XT / 630CP XT / 720CP XT / 760CP XT



Profitable

- 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 500CP XT / 630CP XT / 720CP XT / 760CP XT

The extended CP: more features included

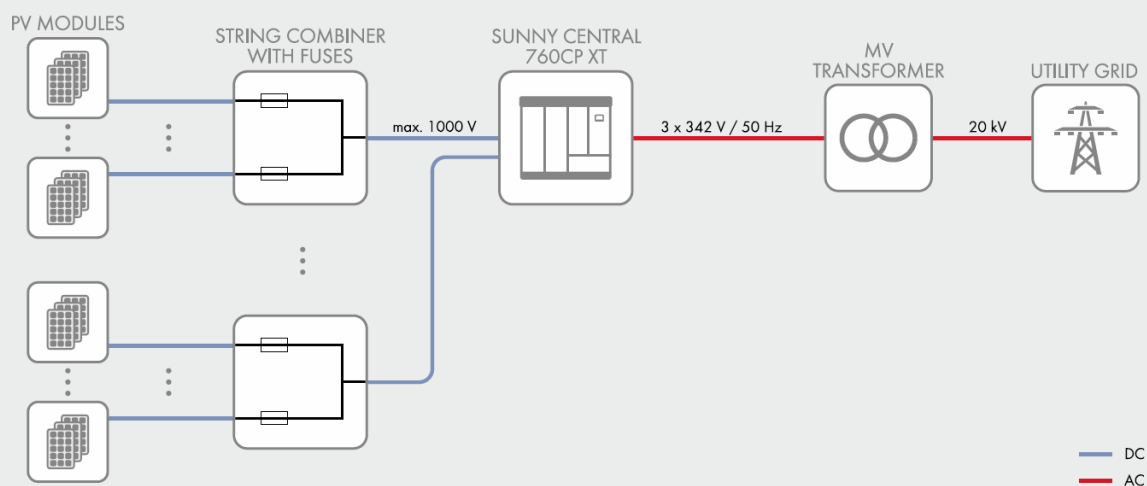
More power: With its extended functions, the new Sunny Central CP XT series is now even more efficient. The reduced specific price, meaning that maximum yields are achieved with lower system costs. The Sunny Central CP XT is also optimized for cold temperatures down to -40 °C and with full nominal power 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

500CP XT / 630CP XT / 720CP XT / 760CP XT

Technical Data	Sunny Central 500CP XT	Sunny Central 630CP XT
Input (DC)		
Max. DC power (@ $\cos \varphi = 1$)	560 kW	713 kW
Max. input voltage	1,000 V	1,000 V
V_{MPP_min} at $I_{MPP} < I_{DCmax}$	430 V	500 V
MPP voltage range (@ 25°C / @ 50°C at 50 Hz) ^{1,2}	449 to 850 V / 430 to 850 V	529 to 850 V / 500 to 850 V
MPP voltage range (@ 25°C / @ 50°C at 60 Hz) ^{1,2}	449 to 850 V / 436 to 850 V	529 to 850 V / 505 to 850 V
Rated input voltage	449 V	529 V
Max. input current	1,250 A	1,350 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)	550 kVA / 500 kVA	700 kVA / 630 kVA
Nominal AC voltage / nominal AC voltage range	270 V / 243 V to 310 V	315 V / 284 V to 362 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 / 270 V	50 Hz / 315 V
Max. output current / max. total harmonic distortion	1,176 A / 1,238 A ³ / 0,03	1,283 A / 1,350 A ³ / 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
Efficiency⁴		
Max. efficiency / European efficiency / CEC efficiency	98,6% / 98,4% / 98,5%	98,7% / 98,5% / 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	63 db(A)	64 db(A)
Max. self-consumption (operation) ⁶ / self-consumption (night)	1,900 W / < 100 W	1,900 W / < 100 W
External auxiliary supply voltage	230 V / 400V (3 / N / PE)	230 V / 400V (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)	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	
● Standard features ○ Optional features – Not available		
Type designation	SC 500CP-10	SC 630CP-10

PLANT DIAGRAM



EFFICIENCY CURVE

