

## 8 Technical Data

### 8.1 Sunny Central 500CP XT

DC Input	
Maximum DC Power	560 kW
Minimum input voltage / maximum input voltage	430 V to 1000 V
Minimum MPP voltage	430 V
MPP voltage range at +25 °C	449 V to 850 V
MPP voltage range at +50 °C	430 V to 850 V
MPP voltage range at +25 °C and 60 Hz	449 V to 850 V
MPP voltage range at +50 °C and 60 Hz	436 V to 850 V
Rated input voltage	449 V
Maximum input current	1250 A
Maximum short-circuit current	2500 A
Maximum reverse current	2300 A
Number of independent MPP inputs	1
Number of DC inputs	9
AC Output	
Rated power at +25 °C	550 kVA
Rated power at +50 °C	500 kVA
Nominal AC voltage	270 V
Nominal AC voltage range	243 V to 310 V
AC power frequency	50 Hz / 60 Hz
AC power frequency range	47 Hz to 63 Hz
Rated frequency	50 Hz
Rated grid voltage	270 V
Maximum total harmonic distortion	0.03
Maximum AC current	1176 A 1,238 A*
Maximum overcurrent protection at output	50000 A
Maximum residual current at the AC output	3500 A
Power factor at rated power	1
Displacement power factor $\cos \varphi$	0.9 overexcited to 0.9 underexcited

<b>AC Output</b>	
Feed-in phases	3
Connection phases	3
Inrush current of the internal power supply	48 A (100 ms)
* up to +5% $I_{max}$ possible at $V_{ac} < V_{acnom}$	
<b>Efficiency</b>	
Maximum efficiency	98.6%
European weighted efficiency	98.4%
CEC weighted efficiency	98.5%
<b>Protective Devices</b>	
DC overvoltage protection	Type I
Lightning protection as per IEC 62305-1	Lightning protection level III
Surge arrester for auxiliary power supply	Yes
Protection class in accordance with IEC 62109-01	I
Overvoltage category in accordance with IEC 60664-1	III
<b>General Data</b>	
Width x height x depth	2562 mm x 2272 mm x 956 mm
Weight	1900 kg
Operating temperature range	-25 °C to +62 °C
Operating temperature range for low-temperature option	-40 °C to +62 °C
Noise emission at a distance of 10 m	63 db(A)
Self-consumption in operation	< 1,900 W
Standby consumption	< 100 W
External supply voltage	230 V/400 V (3/N/PE), 50 Hz/60 Hz
Degree of protection of electronics	IP54
Degree of protection of the connection area	IP43
Maximum permissible value for relative humidity (non-condensing)	15% to 95%
Maximum operating altitude above mean sea level	2000 m
Maximum operating altitude above MSL for option "Installation at high altitudes"	4000 m
Fresh air consumption	3000 m <sup>3</sup> /h