

17 Technical Data

17.1 Measurement Accuracy

The inverter is not equipped with a calibrated meter. The display values may deviate from the actual values and must not be used as a basis for invoicing. The inverter's measured values are required for the system management and to control the current to be fed to the grid.

Deviation:

Voltage measurement: ± 8.5 V

Frequency measurement: ± 0.06 Hz

Disconnect time: $\pm 4.5\%$

17.2 Sunny Central 500CP-US/CA

Input Data

MPP voltage range	430 V _{DC} to 820 V _{DC}
Maximum DC voltage	1,000 V _{DC}
Maximum DC current	1,600 A _{DC}
Max. array short circuit current	2,596 A _{DC}
Number of DC inputs*	9
DC overvoltage category	II

* Only in the inverter option with DC fuses single phase

Output Data

Continuous AC power at +122°F (+50°C)	500 kVA
Continuous AC power at +104°F (+40°C)	520 kVA
Continuous AC power at +77°F (+25°C)	550 kVA
AC current at +122°F (+50°C)	1,069 A _{AC}
AC current at +104°F (+40°C)	1,112 A _{AC}
AC current at +77°F (+25°C)	1,167 A _{AC}
Nominal AC voltage $\pm 10\%$	270 V _{AC}
Nominal power frequency	60 Hz [50 Hz]
Power frequency range	59.3 Hz to 60.5 Hz [49.3 Hz to 50.5 Hz]
Power factor cos φ	0.8 to 1
Current total harmonic distortion	< 5% (with respect to IEEE 1547)
AC overvoltage category	IV

Power Consumption

Self-consumption in operation	< 1,800 W
Standby consumption	< 150 W
Control supply voltage	See nameplate in the connection area of the control circuit

Dimensions and Weight

Width x height x depth	8 ft. 4.87 in x 7 ft. 5.45 in x 3 ft. 1.64 in. (2,562 mm x 2,272 mm x 956 mm)
Weight	4,123 lb (1,870 kg)

Efficiency

Maximum efficiency	98.46%
CEC-eta	98%

Ambient Conditions

Enclosure rating outdoor	Type 3R
Enclosure rating indoor	Type 1
Operating temperature range	- 13°F to 122°F (- 25°C to +50°C)
Maximum altitude above mean sea level, MSL	6,562 ft. (2,000 m)
Supply air flow and quality	1766 SCFM (3,000 m ³ /h), Class 4S2

17.3 Sunny Central 500CP-US/CA 600V

Input Data

MPP voltage range at 550 kW	363 V _{DC} to 480 V _{DC}
MPP voltage range at 500 kW	330 V _{DC} to 480 V _{DC}
Maximum DC voltage	600 V _{DC}
Maximum DC current	1,600 A _{DC}
Max. array short circuit current	2,596 A _{DC}
Number of DC inputs*	9
DC overvoltage category	II

* Only in the inverter option with DC fuses single phase

Output Data

Continuous AC power at +122°F (+50°C)	500 kVA
Continuous AC power at +104°F (+40°C)	520 kVA
Continuous AC power at +77°F (+25°C)	550 kVA
AC current at +122°F (+50°C)	1,443 A _{AC}
AC current at +104°F (+40°C)	1,501 A _{AC}
AC current at +77°F (+25°C)	1,588 A _{AC}
Nominal AC voltage ± 10%	200 V _{AC}
Nominal power frequency	60 Hz [50 Hz]
Power frequency range	59.3 Hz to 60.5 Hz [49.3 Hz to 50.5 Hz]
Power factor cos φ	0.8 to 1

Current THD	< 5% (with respect to IEEE 1547)
AC overvoltage category	IV

Power Consumption

Self-consumption in operation	< 1,800 W
Standby consumption	< 150 W
Control supply voltage	See nameplate in the connection area of the control circuit

Dimensions and Weight

Width x height x depth	8 ft. 4.87 in x 7 ft. 5.45 in x 3 ft. 1.64 in. (2,562 mm x 2,272 mm x 956 mm)
Weight	4,123 lb (1,870 kg)

Efficiency

Maximum efficiency	98.46%
CEC-eta	98%

Ambient Conditions

Enclosure rating outdoor	Type 3R
Enclosure rating indoor	Type 1
Operating temperature range	- 13°F to +122°F (- 25°C to +50°C)
Maximum altitude above mean sea level, MSL	6,562 ft. (2,000 m)
Supply air flow and quality	1766 SCFM (3,000 m ³ /h), Class 4S2

17.4 Sunny Central 630CP-US/CA

Input Data

MPP voltage range	500 V _{DC} to 820 V _{DC}
Maximum DC voltage	1,000 V _{DC}
Maximum DC current	1,600 A _{DC}
Max. array short circuit current	2,596 A _{DC}
Number of DC inputs*	9
DC overvoltage category	II

* Only in the inverter option with DC fuses single phase

Output Data

Continuous AC power at +122°F (+50°C)	630 kVA
Continuous AC power at +104°F (+40°C)	655 kVA
Continuous AC power at +77°F (+25°C)	693 kVA
AC current at +122°F (+50°C)	1,155 A _{AC}