TECHNICAL DATA

WATTBLOC™ 499

Flexible Power Ranges | Modular by Design | Built to Scale



DC input data WATTBLOC 499	WATTBLOC 499
MPP range	540 - 1350 V (based on AC output voltage)
Operating range	540 - 1450 V (based on AC output voltage)
Rated DC voltage / start voltage	627 V to 1344 V (based on AC output voltage)
Max. no-load voltage	1500 V
Max. input current	430 A
Max. short circuit current I sc max	1000 A
Number of MPP trackers	1
Max. connections per tracker	2
AC output data	
Rated output	499.9 kVA (Ouput power can be limited based on selected AC nominal voltage)
Max. power	499.9 kVA
Rated voltage	370 V to 800 V (370V, 480V, 600V, 660V, 690V and 800V)
Voltage range (Ph-Ph)	277 - 1000 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	3 x 360.8 A*
Max. current	3 x 360.8 A*
Reactive power / cos phi	0 – 100 % Snom / 0.30 ind. – 0.30 cap.
Total harmonic distortion (THD)	≤ 3 %
Number of grid phases / line connections	3 / 3P+PE
General Data	
Max. efficiency	99.20%
CEC efficiency	99.00%
Max ambient temp @ Full power (Derating Temperature)	113°F (45°C) up to 1300Vdc
Standby consumption	tbd
Circuitry topology	transformerless
Mechanical Data	
Display	LEDs
Control units	Webserver (supports mobile devices)
Interfaces	Ethernet (Modbus TCP, Sunspec), RS485 (Modbus RTU, Sunspec)
DC connection	cable lug, max. 800 kcmil (400 mm^2) Cu or Al
AC connection	cable lug, max. 800 kcmil (400 mm^2) Cu or Al
Ambient operating temperature	-40 °C – +60 °C
Ambient storage temperature	-40 °C – +60 °C
Humidity	0 – 100 %
Max. installation elevation (above MSL)	3000 m
Cooling	temperature controlled fans
Protection class	NEMA 4X
Noise emission	61.5 dB
H x W x D	31.9 in. (810 mm) x 65.4 in. (1660 mm) x 15.0 in. (380 mm)
Weight	441 lbs (200 kg)

*Output current varies based the selected voltage level as shown in the table below.

Nominal AC Voltage Selected	370 V	480 V	600V	660V	690 V	800V
Resulting output AC power	227 kVA	249.9 kVA	357 kVA	384.5 kVA	416.5 kVA	499.9 kVA
Rated / max output current	354.2 A	300.6 A	343.5 A	336.4 A	348.5 A	360.8 A
MPP range	540 - 1350 V	705 - 1350 V	875 - 1350 V	960 - 1350 V	1008 - 1350 V	1168 - 1350 V
Operating range	540 - 1450 V	705 - 1450 V	875 - 1450 V	960 - 1450 V	1008 - 1450 V	1168 - 1450 V
Rated DC voltage / start voltage	627 V	804 V	1000 V	1098 V	1150 V	1344 V

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