

K A C O



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powerful solutions.



# blueplanet 50.0 TL3

Transformerless, three-phase string inverter.



## The inverter you can count on.

Compact wall-mounted unit for decentralised megawatt projects

Tailored for economical use in solar parks

Special properties for extreme climatic conditions

Farsighted technical features for future requirements

Installation-friendly connection area, user-friendly operation

Integrated section switches for cost-effective grid and plant protection with Powador-protect

## Technical Data

DC input data		50.0 TL3
Max. recommended PV generator power		70 000 W
MPP range		580 <sup>1)</sup> – 900 V
Operating range		580 <sup>1)</sup> – 1 050 V
Rated DC voltage / start voltage		600 V / 670 V
Max. no-load voltage		1 100 V
Max. input current		90 A
Max. short circuit current $I_{sc\ max}$		190 A
Number of MPP tracker		1
Connection per tracker		S / B / M: 1; XL: 10
AC output data		
Rated output		50 000 VA
Max. power		52 000 VA
Line voltage		240 V / 415 V (3 / N / PE; 3 / PEN) 230 V / 400 V (3 / N / PE; 3 / PEN) 220 V / 380 V (3 / N / PE; 3 / PEN)
Voltage range (Ph-Ph)		305 – 480 V
Rated frequency (range)		50 Hz / 60 Hz (42 – 68 Hz)
Rated current		3 x 69.6 A @ 415 V 3 x 72.2 A @ 400 V 3 x 76.0 A @ 380 V
Max. current		3 x 76.5 A
Reactive power / cos phi		0 - 100 % $S_{nom}$ / 0.30 ind. - 0.30 cap.
Max. total harmonic distortion (THD)		1.6 %
Number of grid phases		3
General data		
Max. efficiency		98.5 %
Europ. efficiency		98.1 %
CEC efficiency		98.0 %
Standby consumption		2.5 W
Circuitry topology		transformerless
Mechanical data		
Display		graphical display + LEDs
Control units		4-way navigation + 2 buttons
Interfaces		Ethernet, USB, RS485, optional: 4-DI
Fault signalling relay		potential-free NOC max. 30 V / 1 A
DC connection		S / B / M: max. 120 mm <sup>2</sup> cable plug, Cu / Al XL: DC plugs (SUNCLIX)
AC connection		screw terminals, max. 95 mm <sup>2</sup> , Cu / Al
Ambient temperature		-20 °C – +60 °C <sup>2)</sup>
Humidity		0 – 100 %
Max. installation elevation (above MSL)		3 000 m
Min. distance from coast		2 000 m / 500 m (OD+ version)
Cooling		temperature controlled fan
Protection class		IP65
Noise emission		< 61 db (A)
H x W x D		760 x 500 x 425 mm
Weight		70 kg (S), 71 kg (B / M), 73 kg (XL)
Certifications		
Safety		IEC 62109-1/-2, EN 61000-6-1/-2/-3, EN 61000-3-11/-12
Grid connection rule		overview see homepage / download area

<sup>1)</sup> 560 V @ 220 V / 380 V; 610 V @ 240 V / 415 V  
<sup>2)</sup> Power derating at high ambient temperatures

Versions	S	B	M	XL	XLF
Number of DC inputs	1	1	1	10	10
DC switch	-	✓	✓	✓	✓
String protection PV+	-	-	-	✓	✓
String protection PV -	-	-	-	○	○
DC surge protection	-	-	○	Type 1 + 2	Type 1 + 2
AC surge protection	-	-	○	○	○
OD+	★	★	★	★	★

standard = ✓ upgradeable = ○ optional = ★