

# blueplanet 155 + 165 TL3

String inverters for utility-scale solar power plants  
up to multi-megawatt solar parks.



## Pushing the limits.

Superior efficiencies and  
overload capacity through  
silicon carbide technology

Outstanding power density for  
easy logistics and installation

Decentralised design or 'Virtual  
Central' concept possible

Overvoltage protection  
AC/DC and for communication  
interfaces available

Lean commissioning and updates  
via remote services

## Technical Data

DC input data	155 TL3	165 TL3
Max. recommended PV generator power	232 500 W	247 500 W
MPP range	875 – 1 300 V	960 – 1 300 V
Operating range	875 – 1 450 V	960 – 1 450 V
Rated DC voltage / start voltage	900 V / 1 000 V	1000 V / 1 100 V
Max. no-load voltage	1 500 V	1 500 V
Max. input current	183 A	183 A
Max. short circuit current $I_{sc,max}$	300 A	300 A
Number of MPP tracker	1	1
Connection per tracker	1 - 2	1 - 2
AC output data		
Rated output	155 000 VA	165 000 VA
Max. power	155 000 VA	165 000 VA
Line voltage	600 V (3P+PE)	660 V (3P+PE)
Voltage range (Ph-Ph)	480 – 690 V	480 – 760 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	3 x 149.5 A	3 x 144.4 A
Max. current	3 x 152.0 A	3 x 152.0 A
Reactive power / cos phi		0 – 100 % Snom / 0,30 ind. – 0,30 cap.
Max. total harmonic distortion (THD)	≤ 3 %	≤ 3 %
Number of grid phases	3	3
General data		
Max. efficiency	99.1 %	99.1 %
Europ. efficiency	98.9 %	99.0 %
CEC efficiency	98.9 %	99.0 %
Standby consumption	7 W	7 W
Circuitry topology	transformerless	transformerless
Mechanical data		
Display	LEDs	LEDs
Control units	webserver, supports mobile devices	webserver, supports mobile devices
Interfaces	Ethernet (Modbus TCP, Sunspec), RS485 (KACO-protocol), USB, optional: 4-DI, WIFI	
Fault signalling relay	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
DC connection	cable lug, max. 240 mm <sup>2</sup> (0.372 in <sup>2</sup> ) Cu or Al	
AC connection	cable lug, max. 240 mm <sup>2</sup> (0.372 in <sup>2</sup> ) Cu or Al	
Ambient temperature	-25 °C – +60 °C <sup>1)</sup>	-25 °C – +60 °C <sup>1)</sup>
Humidity	0 – 100 %	0 – 100 %
Max. installation elevation (above MSL)	3 000 m	3 000 m
Min. distance from coast	500 m	500 m
Cooling	temperature controlled fan	temperature controlled fan
Protection class	IP66 / NEMA 4X	IP66 / NEMA 4X
Noise emission	59.2 db (A)	59.2 db (A)
H x W x D	719 x 699 x 460 mm	719 x 699 x 460 mm
Weight	78.2 kg	78.2 kg
Certifications		
Safety	IEC 62109-1/-2, EN 61000-6-1/-2/-4, EN 61000-3-11/-12, EN 55011 group 1, class A EN 62920 Emission class A / Immunity class A UL62109-1, UL1741, CSA-C22.2 No.107.1, CSA-C22.2 No.62109-1, CSA-C22.2 No.62109-2	
Grid connection rule	overview see homepage / download area	

<sup>1)</sup> Power derating at high ambient temperatures

Versions	S	XL
Number of DC inputs	1 - 2	1 - 2
DC switch	-	✓
DC SPD	Type 1 + 2	Type 1 + 2
AC SPD	○	○
RS485 interface SPD	○	○
Ethernet interface SPD	○	○
PID Set	○	○

standard = ✓ upgradeable = ○