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

EUPD RESEARCH
TOP BRAND PV
INVERTERS
EUROPE
2021

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)	450 – 690 V	495 – 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 144.5 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	< 10 W	< 10 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	
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 mm² (0.372 in²) Cu or Al	
AC connection	cable lug, max. 240 mm² (0.372 in²) Cu or Al	
Ambient temperature	-25 °C – +60 °C [1]	-25 °C – +60 °C [1]
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 Sup SA/SB CSA-C22.2 No.107.1, CSA-C22.2 No.62109-1, CSA-C22.2 No.62109-2	UL62109-1, UL1741 Sup SA
Grid connection rule	overview see homepage / download area	

[1] 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 = ○

The text and figures reflect the current technical state at the time of printing. Subject to technical changes. Errors and omissions excepted. This current version replaces all older versions. Download the most current version at: www.kaco-newenergy.com