

# blueplanet 3.0 – 5.0 TL1

Transformerless, single-phase string inverters.



## Small system? Big convenience. Highest yields!

2 MPP trackers, wide MPP range

Convenient AC and DC cabling  
thanks to plug-in connectors

Data logger with web server

Graphical display, intuitive menu  
navigation

Lightweight

Straightforward monitoring

## Technical Data

DC input data	3.0 TL1 M1	3.0 TL1	3.5 TL1
Max. recommended PV generator	3 600 W	3 600 W	4 150 W
MPP range	280 – 510 V	140 – 510 V	165 – 510 V
Operating range	125 – 550 V	125 – 550 V	125 – 550 V
Rated DC voltage / start voltage	379 V / 150 V	379 V / 150 V	379 V / 150 V
Max. no-load voltage	600 V	600 V	600 V
Max. input current	11 A	2 x 11 A	2 x 11 A
Max. short circuit current $I_{sc\ max}$	13.2 A	2 x 13.2 A	2 x 13.2 A
Number of MPP tracker	1	2	2
Connection per tracker	1	1	1
Max. input power per tracker	3100 W	3100 W	3600 W
AC output data			
Rated output	3 000 VA	3 000 VA	3 450 VA
Max. power	3 000 VA	3 000 VA	3 450 VA
Line voltage	230 V (1 / N / PE)	230 V (1 / N / PE)	230 V (1 / N / PE)
Voltage range (Ph-N)	166 – 276 V	166 – 276 V	166 – 276 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	13.0 A	13.0 A	15.0 A
Max. current	14.5 A	14.5 A	16.6 A
Reactive power / cos phi	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.
Max. total harmonic distortion	1.42 %	1.42 %	0.79 %
Number of grid phases	1	1	1
General data			
Max. efficiency	97.2 %	97.2 %	97.2 %
Europ. efficiency	96.2 %	96.5 %	96.5 %
Standby consumption	3 W	3 W	3 W
Circuitry topology	transformerless	transformerless	transformerless
Mechanical data			
Display	graphical display + LEDs	graphical display + LEDs	graphical display + LEDs
Control units	4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons
Interfaces	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI
Fault signalling relay	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
DC connection	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)
AC connection	AC plug	AC plug	AC plug
Ambient temperature	-25 °C – +60 °C <sup>1)</sup>	-25 °C – +60 °C <sup>1)</sup>	-25 °C – +60 °C <sup>1)</sup>
Humidity	0 – 95 %	0 – 95 %	0 – 95 %
Max. installation elevation (above)	2 000 m	2 000 m	2 000 m
Min. distance from coast	2 000 m	2 000 m	2 000 m
Cooling	convection cooling	convection cooling	convection cooling
Protection class	IP54 / NEMA 3R	IP54 / NEMA 3R	IP54 / NEMA 3R
Noise emission	< 35 db (A)	< 35 db (A)	< 35 db (A)
H x W x D	560 x 367 x 227 mm	560 x 367 x 227 mm	560 x 367 x 227 mm
Weight	15 kg	15 kg	16.5 kg
Certifications			
Safety	IEC 62109-1 / -2, EN 61000-6-1 / -2 / -3, EN 61000-3-2 / -3 / -11 / -12		
Grid connection rule	overview see homepage / download area		

3.7 TL1	4.0 TL1	4.6 TL1	5.0 TL1
4 400 W	4 800 W	5 500 W	6 000 W
170 – 510 V	185 – 510 V	215 – 510 V	235 – 510 V
125 – 550 V	125 – 550 V	125 – 550 V	125 – 550 V
379 V / 150 V	379 V / 150 V	379 V / 150 V	379 V / 150 V
600 V	600 V	600 V	600 V
2 x 11 A	2 x 11 A	2 x 11 A	2 x 11 A
2 x 13.2 A	2 x 13.2 A	2 x 13.2 A	2 x 13.2 A
2	2	2	2
1	1	1	1
3800 W	4100 W	4700 W	5140 W
3 680 VA	4 000 VA	4 600 VA	5 000 VA
3 680 VA	4 000 VA	4 600 VA	5 000 VA
230 V (1 / N / PE)	230 V (1 / N / PE)	230 V (1 / N / PE)	230 V (1 / N / PE)
166 – 276 V	166 – 276 V	166 – 276 V	166 – 276 V
50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
16.0 A	17.4 A	20.0 A	21.7 A
17.7 A	19.5 A	22.0 A	22.0 A
0 – 95 % Smax / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.
0.79 %	0.79 %	0.79 %	0.79 %
1	1	1	1
97.2 %	97.2 %	97.2 %	97.2 %
96.5 %	96.6 %	96.6 %	96.6 %
3 W	3 W	3 W	3 W
transformerless	transformerless	transformerless	transformerless
graphical display + LEDs	graphical display + LEDs	graphical display + LEDs	graphical display + LEDs
4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons
Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI
potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)
AC plug	AC plug	AC plug	AC plug
-25 °C – +60 °C <sup>1)</sup>	-25 °C – +60 °C <sup>1)</sup>	-25 °C – +60 °C <sup>1)</sup>	-25 °C – +60 °C <sup>1)</sup>
0 – 95 %	0 – 95 %	0 – 95 %	0 – 95 %
2 000 m	2 000 m	2 000 m	2 000 m
2 000 m	2 000 m	2 000 m	2 000 m
convection cooling	convection cooling	convection cooling	convection cooling
IP54 / NEMA 3R	IP54 / NEMA 3R	IP54 / NEMA 3R	IP54 / NEMA 3R
< 35 db (A)	< 35 db (A)	< 35 db (A)	< 35 db (A)
560 x 367 x 227 mm	560 x 367 x 227 mm	560 x 367 x 227 mm	560 x 367 x 227 mm
18 kg	18 kg	18 kg	18 kg

IEC 62109-1 / -2, EN 61000-6-1 / -2 / -3, EN 61000-3-2 / -3 / -11 / -12

overview see homepage / download area

Feed in starts at less than 550 V DC

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

