

# blueplanet 29.0 TL3 LV

Transformerless, three-phase string inverter.



## Up with economy, down with costs.

Input voltage up to 1100 V for flexibility and safety in the DC design

Large cable cross-sections possible for copper and aluminium cables

Compact and lightweight for wall mounting

Cost-saving DC and AC input configurations

Wide MPP range for flexible string design

Adjustable cos phi from 0.3 ind. to 0.3 cap. for special reactive power requirements

Up to 150 % inverter oversizing possible

Made in Germany

## Technical Data

DC input data		29.0 TL3 LV
Max. recommended PV generator power		43 500 W
MPP range		360 – 900 V
Operating range		360 – 1050 V
Rated DC voltage / start voltage		410 V / 460 V
Max. no-load voltage		1 100 V
Max. input current		85 A
Max. short circuit current $I_{sc\ max}$		190 A
Number of MPP tracker		1
Connection per tracker		S / B / M : 1; XL: 6
AC output data		
Rated output		29 000 VA @ 138 V / 240 V 29 000 VA @ 127 V / 220 V 27 500 VA @ 120 V / 208 V
Max. power		30 100 VA
Line voltage		138 V / 240 V (3 / N / PE; 3 / PEN) 127 V / 220 V (3 / N / PE; 3 / PEN) 120 V / 208 V (3 / N / PE; 3 / PEN)
Voltage range (Ph-Ph)		166 - 346 V
Rated frequency (range)		50 Hz / 60 Hz (42 - 68 Hz)
Rated current		3 x 69.8 A @ 240 V 3 x 76.1 A @ 220 V 3 x 76.5 A @ 208 V
Max. current		3 x 76.5 A
Reactive power / cos phi		0 – 100 % Snom / 0.30 ind. – 0.30 cap.
Max. total harmonic distortion (THD)		1.6 %
Number of grid phases		3
General data		
Max. efficiency		97.3 %
Europ. efficiency		96.9 %
CEC efficiency		97.0 %
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>1)</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> Power derating at high ambient temperatures

Versions	S	B	M	XL
Number of DC inputs	1	1	1	6
DC switch	-	✓	✓	✓
String protection PV+	-	-	-	✓
DC surge protection	-	-	○	Type 1 + 2
AC surge protection	-	-	○	○
OD+	★	★	★	★

standard = ✓ upgradeable = ○ optional = ★

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](http://www.kaco-newenergy.com)