



## Data sheet

blueplanet  
50.0 TL3 Basic INT  
50.0 TL3 M INT  
50.0 TL3 XL INT

# Up with economy, down with costs.

The transformerless, three-phase inverter blueplanet 50.0 TL3 INT.

For the blueplanet 50.0 TL3 INT we have further developed the configuration of the proven Powador 60.0 TL3: 50 reliable kVA which weigh a mere 71 kilograms and fit on the wall with ease. This inverter demonstrates its strengths in particular in solar power stations on a commercial and industrial scale.

The blueplanet 50.0 TL3 INT comes in three versions and is specifically geared towards your respective cost strategy:

- The Basic version offers you everything you need if you are installing string collectors and overvoltage protection externally. There are no double costs in store for you.
- Rely on the M version if you intend to use external string collectors. Sockets for the DC and the AC side plug-and-play combined arrestors are already fitted.
- The XL version comes fitted with 10 string fuses and includes the DC side type 1 and 2 combined arrestor, as well as the socket for the AC side plug-and-play combined arrestor.

The DC-switch is of course preinstalled in all versions. The blueplanet 50.0 TL3 Basic and M support large cable cross-sections on the DC and AC side. The benefit to you: reduced cabling loss, less sub-distribution. You can lay copper cable as before, or seize the opportunity of using aluminium ones that are less expensive. On the AC side, you also have your choice of cables with the blueplanet 50.0 TL3 XL. On the DC side, Sunclix plug connectors simplify the installation process.

Due to the compact design, the blueplanet 50.0 TL3 INT is easy to transport, hang up and take down - even on the module support. The durable aluminium housing is suitable for outdoor installation. The inverter only derates power from +50 °C upwards; this feature makes it particularly well-suited for operation in hot climates.

Do you require network and system protection or remote-controlled power regulation for your PV plant? KACO new

energy is offering you a uniquely affordable and lean combined solution with blueplanet 50.0 TL3 INT and Powador-protect. The inverter is factory-fitted with coupler circuit breakers, which are actuated by Powador-protect. You will save yourself the cost of acquiring, installing and operating external coupler circuit breakers.

The OD+ variant of the blueplanet 50.0 TL3 has been equipped with special parts so as to make it permanently resilient against salt air corrosion in coastal areas: Whereas installation is not usually recommended up to a distance of 2000 meters from the sea, the OD+ can be installed as near as 500 meters from the shoreline.

# Technical data

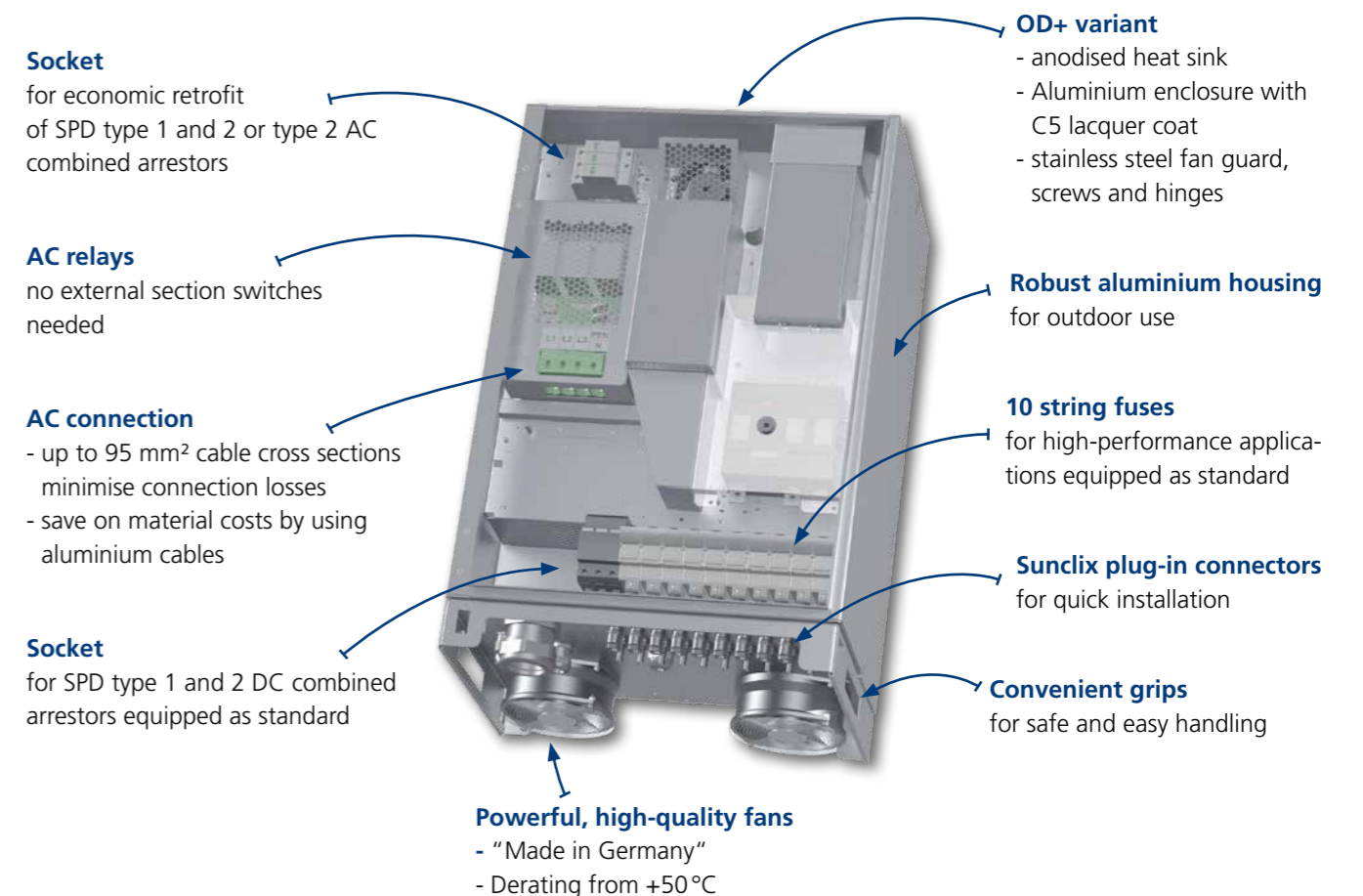
## blueplanet 50.0 TL3 INT

Electrical data	50.0 TL3 INT
<b>DC input</b>	
Max. recommended PV generator power	70000 W
MPP range@Pnom	580 V <sup>1)</sup> ... 900 V
Operating range	580 V <sup>1)</sup> ... 1050 V
Rated DC voltage/start voltage	600 V / 670 V
No-load voltage	1100 V
Max. input current	90 A
Max. short circuit current I <sub>sc max</sub>	150 A
Number of MPP trackers	1
<b>AC output</b>	
Rated output (@230V / 220V)	50000 VA
Line voltage	400 V / 230 V; 380 V / 220 V; 415 V / 240 V (3 / N / PE or 3 / PEN)
Rated current	3 x 72.4 A
Max. current	3 x 75.8 A
Rated frequency	50 Hz / 60 Hz
cos phi	0.30 inductive ... 0.30 capacitive
Number of grid phases	3
<b>General electrical data</b>	
Max. efficiency	98.5 %
European efficiency	98.1 %
Standby consumption	2.5 W
Circuitry topology	transformerless
<b>Mechanical data</b>	
Display	graphical display + LEDs
Control units	4-way navigation + 2 buttons
Interfaces	standard: 2 x Ethernet, USB, RS485, fault signalling relay optional: 4-DI
Fault signalling relay	potential-free NOC max. 30 V / 1 A
Connections	AC: screw terminals, max. cross section: 95 mm <sup>2</sup> Cu or Al DC: Basic or M: cable plug, max. cross section: 120 mm <sup>2</sup> Cu or Al XL: DC plugs (SUNCLIX)
Ambient temperature	-20 °C ... +60 °C <sup>2)</sup>
Cooling	forced convection / speed controlled fan
Protection class	IP65
Noise emission	<61 db(A)
H x W x D	760 x 500 x 425 mm
Weight	71 kg (Basic, M), 73 kg (XL)
<b>Certifications</b>	
Safety	IEC 62109-1/-2, EN 61000-6-1/-2/-3, EN 61000-3-11/-12
Grid compliance	overview: see homepage/download area

Conforms to the country-specific standards and regulations according to the country version that has been set.  
<sup>1)</sup> 560V@380V/220V; 610V@415V/240V <sup>2)</sup> Power derating at high ambient temperatures.

Versions	Basic	M	XL	XLF	XL OD+
Number of DC inputs	1	1	10	10	10
DC switch	integrated	integrated	integrated	integrated	integrated
String protection	-	-	DC plus input 10 x 15A	DC plus input 10 x 15A	DC plus input 10 x 15A
DC surge protection	-	upgradeable	SPD type 1 + 2	SPD type 1 + 2	SPD type 1 + 2
AC surge protection	-	upgradeable	upgradeable	upgradeable	upgradeable

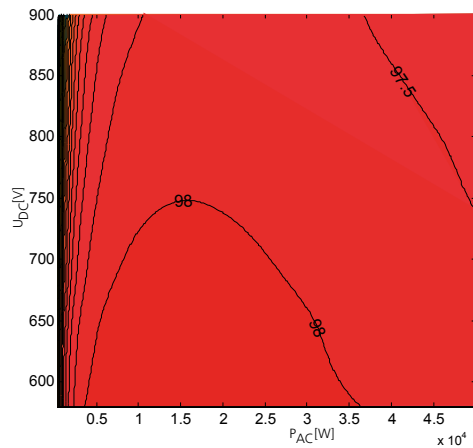
Profitability and reliability that you can see:  
 Inside the blueplanet 50.0 TL3 INT XL.





## Graphical display of efficiency

3D efficiency diagram for blueplanet 50.0 TL3 INT



### blueplanet 50.0 TL3 INT

NEW: OD+ variant protected against salt air corrosion

IP65 aluminium housing for outdoor installation

Wide MPP range for longer strings

Up to 40% inverter oversizing possible

Input voltage up to 1,100 V for flexibility and safety in the DC design

Cost-saving DC and AC input configurations

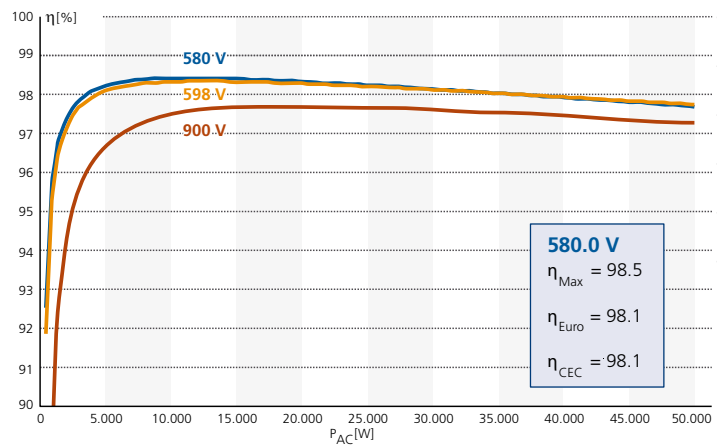
Large cable cross-sections possible for copper and aluminium cables

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

External section switches unnecessary if used with Powador-protect

High temperature power derating from +50 °C

Efficiency characteristic curve for blueplanet 50.0 TL3 INT



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