



## 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 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 which are designed in a consistent manner.

As is customary at KACO new energy, the blueplanet 50.0 TL3 accommodates you with various equipment. The three versions are geared specifically towards your respective cost strategy in terms of safety and cabling:

- The Basic version offers you everything you need if you are installing string collectors and overvoltage protection externally.
- Rely on the M version if you use external string collectors. DC and AC overvoltage protection is arranged for as a convenient plug-and-play solution.
- The XL version includes string collectors, DC overvoltage protection type 1 + 2 as well as the M version's AC overvoltage protection.

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 is easy to transport, hang up and take down - even on the module support. The durable aluminium housing is suitable for outdoor installation.

Data logger with web server, USB interface for updates, graphics display for operation: With the blueplanet 50.0 TL3, comfortable communication comes as standard.

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 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.

# Technical data

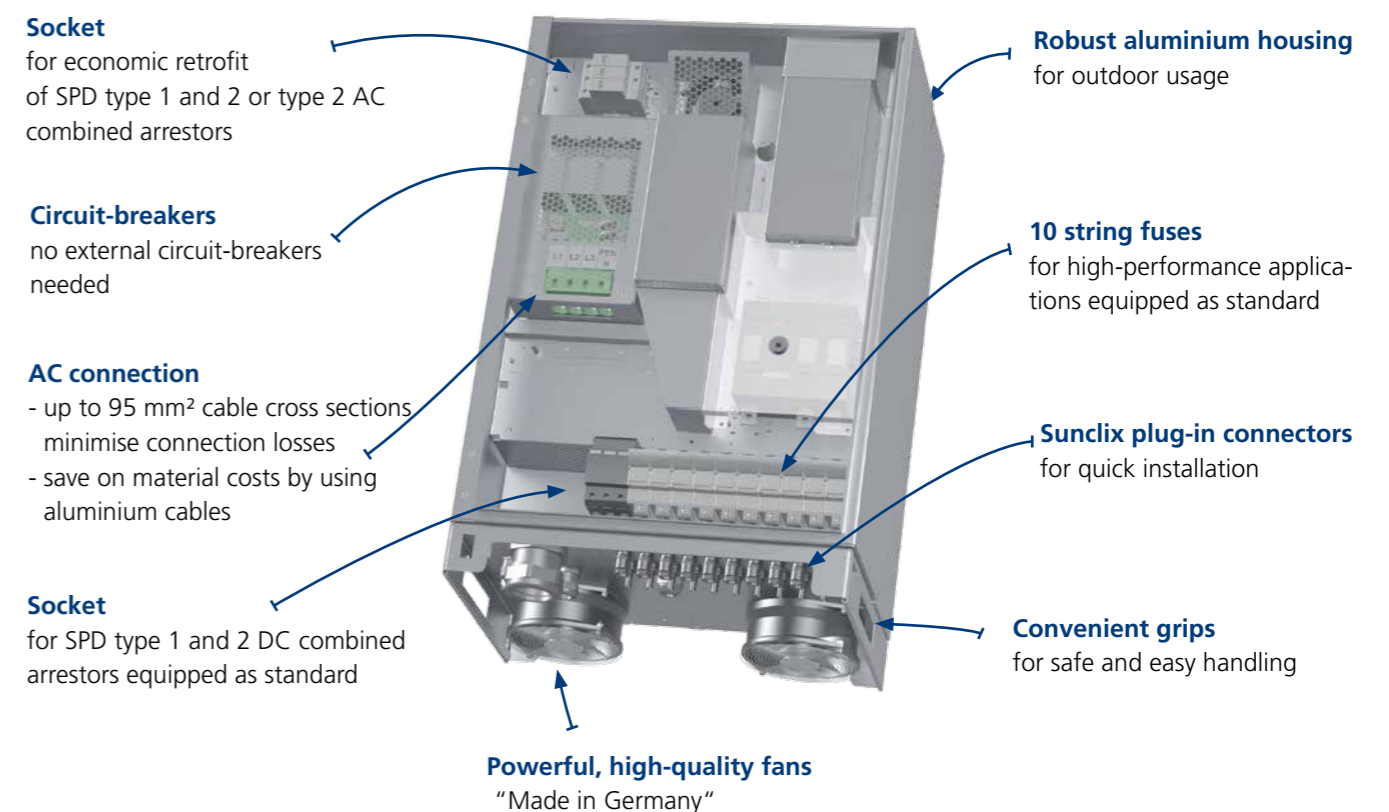
## blueplanet 50.0 TL3 INT

Electrical data	50.0 TL3 INT
<b>DC input</b>	
MPP range@Phom	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 @ 230 V
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
Topology	transformerless
<b>Mechanical data</b>	
Display	graphical display + LEDs
Control units	4-way navigation + 2 buttons
Interfaces	standard: 2 x Ethernet, USB, RS485, error 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> 570V@380V/220V; 600V@415V/240V <sup>2)</sup> Power derating at high ambient temperatures.

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

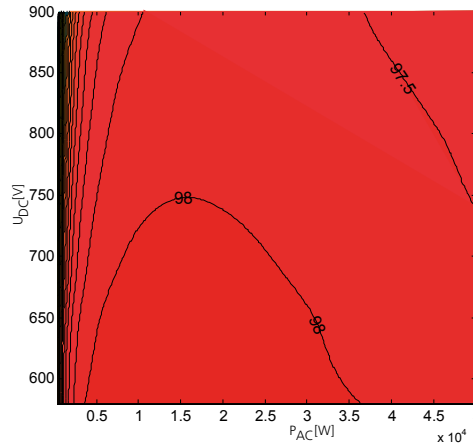
Profitability and reliability that you can see:  
 Inside the blueplanet 50.0 TL3 INT XL.





## Graphical display of efficiency

3D efficiency diagram for blueplanet 50.0 TL3 INT



## blueplanet 50.0 TL3 INT

Compact and lightweight for wall mounting

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

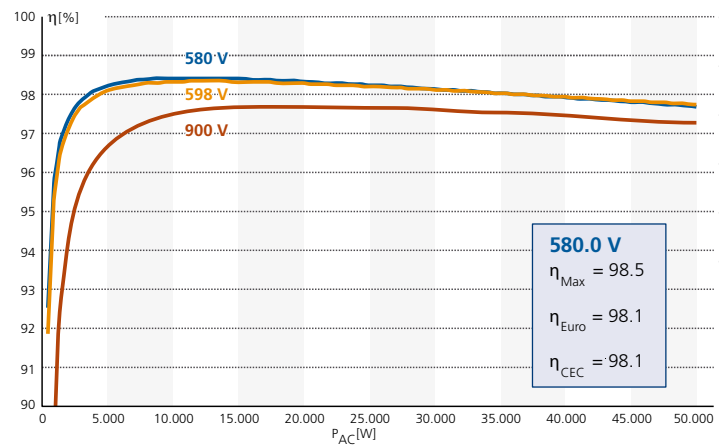
Cost-saving DC and AC input configurations

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 coupler circuit breakers unnecessary if used with Powador-protect

Efficiency characteristic curve for blueplanet 50.0 TL3 INT



Your retailer