KACO

new energy.

Data sheet

blueplanet
15.0 TL3
20.0 TL3

Versatile on the roof, powerful in the park.

The transformerless, three-phase inverters blueplanet 15.0 TL3 and 20.0 TL3.

The blueplanet 15.0 TL3 and 20.0 TL3 offer you plenty of scope for your photovoltaic projects in the medium power range – from small, commercial solar roofs to large-scale, open space solar parks.

Both inverters operate using two separate MPP trackers that can handle both symmetrical and asymmetrical loads. You will be able to deal with east/west facing roofs (symmetrical load), factory roofs which are shaded or inconsistently designed and open spaces (asymmetrical load). Two strings can be connected per MPP tracker.

The wide input voltage range underscores the high performance of the units: The inverters start at 250 V, and, when in operation, continue to feed in at 200 V. They work right up to 950 V. First, these features give you a high degree of flexibility in system planning, and later, their long working hours will result in extremely high profitability.

The inverters comply with the BDEW medium voltage directive and a broad range of international grid regulations. Moreover, the combination of inverter and Powador-protect allows you to meet the requirements of grid and system protection as well as power management simply and inexpensively.

An extension module with 4 digital inputs allows performance targets sent by the grid operator via ripple control receiver to be put into action by the inverters themselves; this does away with an intermediate data logger. Please find more information about the extension module on our website.

The inverters are equipped with pre-installed sockets for each MPP-Tracker into which the DC surge protection device of type SPD 1+2 can be fitted. They also include two Ethernet ports that allow for bus cabling („daisy chain").

In the OD+ model variant, KACO new energy inverters are built to be resilient against salt air corrosion. Whereas you have normally to keep a minimum distance to the sea of 2000 metres, you can install OD+ inverters as near as 500 meters from the shoreline.

The testing of the devices is based on the norm IEC 60068-2-52:1996, Environmental testing - Part 2: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution).
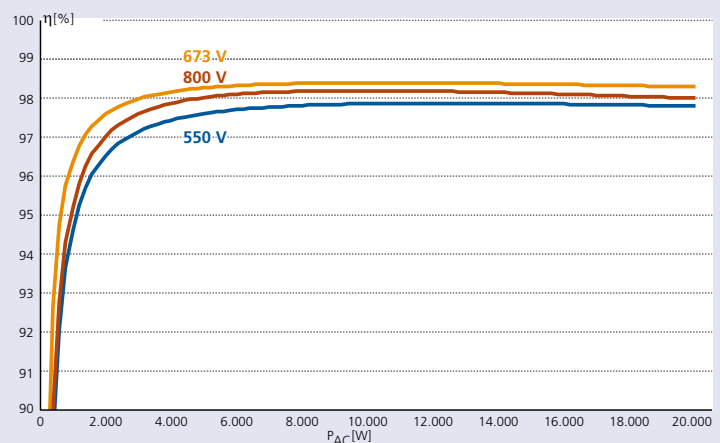
The following inverters are tested without any abnormalities and are available in an OD+ version: blueplanet 15.0 TL3 and 20.0 TL3, blueplanet 50.0 TL3, blueplanet 125 TL3.

Graphical display of efficiency

3D efficiency diagram for blueplanet 20.0 TL3
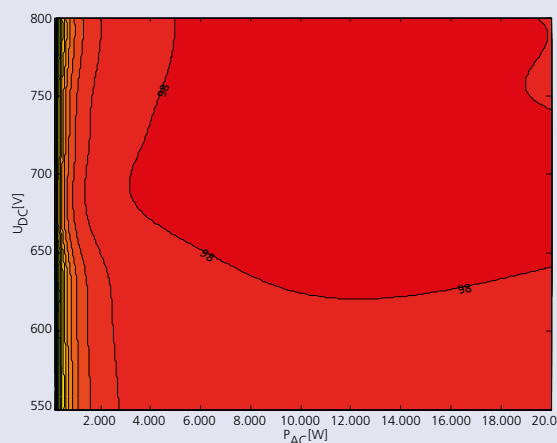
Efficiency characteristic curve for blueplanet 20.0 TL3

Technical data

blueplanet 15.0 TL3 | 20.0 TL3

Electrical data	15.0 TL3	20.0 TL3
Input variables		
Maximum PV generator power	18 000 W	24 000 W
MPP range@Pnom	420 V ... 800 V	515 V ... 800 V
Operating range	200 V - 950 V	200 V - 950 V
Min. DC voltage / starting voltage	200 V / 250 V	200 V / 250 V
No-load voltage	1 000 V	1 000 V
Max. input current	2 x 20.0 A	2 x 20.0 A
Max. short circuit current [$I_{SC\,max}$]	2 x 22.4 A	2 x 22.4 A
Number of MPP trackers	2	2
Max. power/tracker	14.9 kW	15.0 kW
Number of strings	2 x 2	2 x 2
Output variables		
Rated output (@ 230 V)	15 000 VA@230 V	20 000 VA@230 V
Line voltage	400 V / 230 V (3 / N / PE)	400 V / 230 V (3 / N / PE)
Rated current	3 x 21.8 A	3 x 29.0 A
Rated frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
cos phi	0.30 inductive ... 0.30 capacitive	0.30 inductive ... 0.30 capacitive
Number of grid phases	3	3
General electrical data		
Max. efficiency	98,0 %	98.4 %
Europ. efficiency	97.7 %	98.1 %
Night consumption	1.5 W	1.5 W
Switching plan	transformerless	transformerless
Grid monitoring	acc. to local requirements	acc. to local requirements
Mechanical data		
Display	graphical display + LEDs	graphical display + LEDs
Control units	4-way navigation + 2 buttons	4-way navigation + 2 buttons
Interfaces	standard: 2 x Ethernet, USB, RS485, fault signalling relay optional: 4-DI	standard: 2 x Ethernet, USB, RS485, fault signalling relay optional: 4-DI
Fault signalling relay	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
Connections	DC: solar connector, AC: cable connection M40 and terminal (max. cross-section: 16 mm² flexible, 10 mm² rigid)	DC: solar connector, AC: cable connection M40 and terminal (max. cross-section: 16 mm² flexible, 10 mm² rigid)
Ambient temperature	-25°C ... +60°C [1]	-25°C ... +60°C [1]
Cooling	forced convection	forced convection
Protection class	IP65	IP65
Noise emission	< 52 dB (A)	< 53 dB (A)
DC switch	integrated	integrated
Casing	aluminium casting	aluminium casting
H x W x D	690 x 420 x 200 mm	690 x 420 x 200 mm
Weight	46.6 kg	46.6 kg

[1] Power derating at high ambient temperatures.

blueplanet
15.0 TL3
20.0 TL3

Up to 98.4 % efficiency

2 MPP trackers, symmetrical and asymmetrical loading possible

Wide input voltage range
200 V – 950 V

Protection class IP65 for outdoor use

Graphical display, multilingual menu, pre-configured country settings

Data logger with web server

Prepared for DC surge protection SPD 1+2

Your retailer

www.kaco-newenergy.com