KACO new energy.

blueplanet 87.0 + 92.0 TL3

String inverters for large-scale commercial and industrial PV systems.



The inverters for every situation.

Cost-effective thanks to 380/400 V output voltage and integrated coupling switches
Optimized for 1000 V and 1500 V solar modules

Maximum efficiency and overload capacity thanks to efficient silicon carbide technology
Special features for extreme environmental conditions

Streamlined commissioning and updates via remote services
Decentralized design or "Virtual Central" concept available

EUPD RESEARCH
TOP BRAND PV
INVERTERS
EUROPE
2021

Technical Data

DC input data	87.0 TL3	92.0 TL3
Max. recommended PV generator power	130 500 W	138 000 W
MPP range	563 – 1 300 V	591 – 1 300 V [1]
Operating range	563 – 1 450 V	591 – 1 450 V [1]
Rated DC voltage / start voltage	600 V / 645 V	620 V / 675 V [1]
Max. no-load voltage	1 500 V	1 500 V
Max. input current	160 A	160 A
Max. short circuit current $I_{sc\ max}$	300 A	300 A
Number of MPP tracker	1	1
Connection per tracker	1 - 2	1 - 2
AC output data		
Rated output	87 000 VA	92 000 VA
Max. power	87 000 VA	92 000 VA
Line voltage	380 V (3P+PE)	400 V (3P+PE)
Voltage range (Ph-Ph)	285 – 437 V	300 – 460 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	3 x 132.3 A	3 x 132.3 A
Max. current	3 x 132.3 A	3 x 132.3 A
Reactive power / cos phi	0 – 100 % Snom / 0.30 ind. – 0.30 cap.	0 – 100 % Snom / 0,30 ind. – 0,30 cap.
Max. total harmonic distortion (THD)	≤ 3 %	≤ 3 %
Number of grid phases	3	3
General data		
Max. efficiency	98.9 %	98.9 %
Europ. efficiency	98.6 %	98.6 %
CEC efficiency	98.6 %	98.6 %
Standby consumption	< 10 W	< 10 W
Circuitry topology	transformerless	transformerless
Mechanical data		
Display	LEDs	LEDs
Control units	webserver, supports mobile devices	webserver, supports mobile devices
Interfaces	Ethernet (Modbus TCP, Sunspec) RS485 (KACO-protocol) USB, optional: 4-DI	Ethernet (Modbus TCP, Sunspec) RS485 (KACO-protocol) USB, optional: 4-DI
Fault signalling relay	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
DC connection	cable lug, max. 240 mm² Cu or Al	cable lug, max. 240 mm² Cu or Al
AC connection	cable lug, max. 240 mm² Cu or Al	cable lug, max. 240 mm² Cu or Al
Ambient temperature	-25 °C – +60 °C [2]	-25 °C – +60 °C [2]
Humidity	0 – 100 %	0 – 100 %
Max. installation elevation (above MSL)	3 000 m	3 000 m
Min. distance from coast	500 m	500 m
Cooling	temperature controlled fan	temperature controlled fan
Protection class	IP66 / NEMA 4X	IP66 / NEMA 4X
Noise emission	59.2 db (A)	59.2 db (A)
H x W x D	719 x 699 x 460 mm	719 x 699 x 460 mm
Weight	78.2 kg	78.2 kg
Certifications		
Safety	IEC 62109-1/-2, EN 61000-6-1/-2/-4, EN 61000-3-11/-12, EN 55011 group 1, class A EN 62920 Emission class A / Immunity class A UL62109-1, UL1741 Sup SA/SB, CSA-C22.2 No.107.1, CSA-C22.2 No.62109-1, CSA-C22.2 No.62109-2	
Grid connection rule	overview see homepage / download area	

[1] Line voltage 240 V: MPP-range 613 - 1 300 V | start voltage 700 V
[2] Power derating at high ambient temperatures

Versions	S	XL
Number of DC inputs	1 - 2	1 - 2
DC switch	-	✓
DC SPD	Type 1 + 2	Type 1 + 2
AC SPD	O	O
RS485 interface SPD	O	O
Ethernet interface SPD	O	O
PID Set	O	O

standard = ✓ upgradeable = O

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The text and figures reflect the current technical state at the time of printing. Subject to technical changes. Errors and omissions excepted.
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