KACO new energy.

blueplanet 3.0 – 10.0 TL3

Transformerless, three-phase string inverters.

The inverters for the private energy revolution.

Rapid amortization of residential and small commercial PV arrays

High flexibility for unconventional system designs

Simple installation and commissioning, also outdoors

Data logger with web server for continuous system monitoring

Optimised for the targeted self-consumption of solar power

Technical Data

DC input data	**3.0 TL3**	**4.0 TL3**	**5.0 TL3**
Max. recommended PV generator power	3 600 W	4 800 W	6 000 W
MPP range	200 – 800 V	200 – 800 V	240 – 800 V
Operating range	200 – 950 V	200 – 950 V	200 – 950 V
Rated DC voltage / start voltage	653 V / 250 V	653 V / 250 V	653 V / 250 V
Max. no-load voltage	1 000 V	1 000 V	1 000 V
Max. input current	2 x 11 A	2 x 11 A	2 x 11 A
Max. short circuit current $I_{sc\,max}$	2 x 16 A	2 x 16 A	2 x 16 A
Number of MPP tracker	2	2	2
Connection per tracker	1	1	1
Max.input power per tracker	3 200 W	4 200 W	5 200 W
AC output data			
Rated output	3 000 VA	4 000 VA	5 000 VA
Max. power	3 000 VA	4 000 VA	5 000 VA
Line voltage	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)
Voltage range (Ph-Ph)	305 – 480 V	305 – 480 V	305 – 480 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	3 x 4.20 A @ 415 V 3 x 4.35 A @ 400 V 3 x 4.60 A @ 380 V	3 x 5.60 A @ 415 V 3 x 5.80 A @ 400 V 3 x 6.10 A @ 380 V	3 x 7.00 A @ 415 V 3 x 7.25 A @ 400 V 3 x 7.60 A @ 380 V
Max. current	3 x 4.8 A	3 x 6.4 A	3 x 8.0 A
Reactive power / cos phi	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.
Max. total harmonic distortion (THD)	0.36 %	0.32 %	0.31 %
Number of grid phases	3	3	3
General data			
Max. efficiency	98.1 %	98.2 %	98.3 %
Europ. efficiency	96.6 %	97.1 %	97.4 %
Standby consumption	3 W	3 W	3 W
Circuitry topology	transformerless	transformerless	transformerless
Mechanical data			
Display	graphical display + LEDs	graphical display + LEDs	graphical display + LEDs
Control units	4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons
Interfaces	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI
Fault signalling relay	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
DC connection	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)
AC connection	AC plug	AC plug	AC plug
Ambient temperature	-25 °C – +60 °C [1)]	-25 °C – +60 °C [1)]	-25 °C – +60 °C [1)]
Humidity	0 – 100 %	0 – 100 %	0 – 100 %
Max. installation elevation (above MSL)	2 000 m	2 000 m	2 000 m
Min. distance from coast	2 000 m	2 000 m	2 000 m
Cooling	temperature controlled fan	temperature controlled fan	temperature controlled fan
Protection class	IP65	IP65	IP65
Noise emission	< 53 db (A)	< 53 db (A)	< 53 db (A)
H x W x D	522 x 363 x 246 mm	522 x 363 x 246 mm	522 x 363 x 246 mm
Weight	30 kg	30 kg	30 kg
Certifications			
Safety	EN 62109-1 / -2, EN 61000-6-2 / -3, EN 61000-3-2 / -3		
Grid connection rule	overview see homepage / download area		

6.5 TL3	7.5 TL3	8.6 TL3	9.0 TL3	10.0 TL3
7 800 W	9 000 W	10 300 W	10 800 W	12 000 W
310 – 800 V	350 – 800 V	403 – 800 V	420 – 800 V	470 – 800 V
200 – 950 V	200 – 950 V	200 – 950 V	200 – 950 V	200 – 950 V
653 V / 250 V	653 V / 250 V	653 V / 250 V	653 V / 250 V	653 V / 250 V
1 000 V	1 000 V	1 000 V	1 000 V	1 000 V
2 x 11 A	2 x 11 A	2 x 11 A	2 x 11 A	2 x 11 A
2 x 16 A	2 x 16 A	2 x 16 A	2 x 16 A	2 x 16 A
2	2	2	2	2
1	1	1	1	1
6 700 W	7 700 W	8 800 W	8 800 W	8 800 W
6 500 VA	7 500 VA	8 600 VA	9 000 VA	10 000 VA
6 500 VA	7 500 VA	8 600 VA	9 000 VA	10 000 VA
240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)	240 V / 415 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 220 V / 380 V (3 / N / PE)
305 – 480 V	305 – 480 V	305 – 480 V	305 – 480 V	305 – 480 V
50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
3 x 9.10 A @ 415 V 3 x 9.50 A @ 400 V 3 x 9.90 A @ 380 V	3 x 10.50 A @ 415 V 3 x 10.90 A @ 400 V 3 x 11.40 A @ 380 V	3 x 12.00 A @ 415 V 3 x 12.50 A @ 400 V 3 x 13.10 A @ 380 V	3 x 12.60 A @ 415 V 3 x 13.00 A @ 400 V 3 x 13.70 A @ 380 V	3 x 14.95 A @ 415 V 3 x 14.50 A @ 400 V 3 x 15.20 A @ 380 V
3 x 10.5 A	3 x 12.0 A	3 x 13.2 A	3 x 14.0 A	3 x 15.5 A
0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.	0 – 95 % Snom / 0.30 ind. – 0.30 cap.
0.29 %	0.3 %	0.3 %	0.3 %	0.27 %
3	3	3	3	3
98.3 %	98.3 %	98.3 %	98.3 %	98.5 %
97.6 %	97.7 %	97.9 %	97.9 %	98.3 %
3 W	3 W	3 W	3 W	3 W
transformerless	transformerless	transformerless	transformerless	transformerless
graphical display + LEDs	graphical display + LEDs	graphical display + LEDs	graphical display + LEDs	graphical display + LEDs
4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons	4-way navigation + 2 buttons
Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI	Ethernet, USB, RS485, optional: 4-DI
potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A	potential-free NOC max. 30 V / 1 A
DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)	DC plugs (SUNCLIX)
AC plug	AC plug	AC plug	AC plug	AC plug
-25 °C – +60 °C [1]	-25 °C – +60 °C [1]	-25 °C – +60 °C [1]	-25 °C – +60 °C [1]	-25 °C – +60 °C [1]
0 – 100 %	0 – 100 %	0 – 100 %	0 – 100 %	0 – 100 %
2 000 m	2 000 m	2 000 m	2 000 m	2 000 m
2 000 m	2 000 m	2 000 m	2 000 m	2 000 m
temperature controlled fan	temperature controlled fan	temperature controlled fan	temperature controlled fan	temperature controlled fan
IP65	IP65	IP65	IP65	IP65
< 53 db (A)	< 53 db (A)	< 53 db (A)	< 53 db (A)	< 53 db (A)
522 x 363 x 246 mm	522 x 363 x 246 mm	522 x 363 x 246 mm	522 x 363 x 246 mm	522 x 363 x 246 mm
30 kg	30 kg	30 kg	30 kg	30 kg
EN 62109-1 / -2, EN 61000-6-2 / -3, EN 61000-3-2 / -3				
overview see homepage / download				

[1] Power derating at high ambient temperatures

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