

Kaco Powador central inverters

Efficient and reliable

Individual performance

With generator outputs of 25 to 60 kVA, the inverters of the Kaco Powador series cover a broad performance range completely. The ability of combining all devices freely enables any project to be realised optimally and individually – from single-family houses to decentralized megawatt solar parks.

Powador TL3 series

Based on the concept of the successful 30 kW family and the switching concept of the Powador 14.0 TL3, these devices have been redesigned completely: As three-phase devices they feed in between the phases with a typical shift of 120°. A number of country-specific presets are programmed into the inverters; simply select the required ones on site on the devices. To achieve optimal adjustment the devices operate three separate MPP trackers, which can be loaded asymmetrically. The input voltage range is designed particularly wide with 350 to 800 V.

Advantages in brief

- Generator output of 25 to 60 kVA
- Ability to combine all devices

- Patented MPP control
- New IGBT circuit breaker
- 3-phase voltage monitoring for devices without transformers
- Integrated string collector with string fuse and overvoltage protection (with Powador 30.0 – 72.0 TL3 XL variants)
- Lowest kW price with Powador 60.0 and 72.0 TL3

Available in four designs

- M version with DC disconnect, 1 string per MPPT connectable
- XL version with integrated string collector and string fuse as well as surge protection. For the 60 kVA device, 5 strings per MPP tracker can be connected and 4 strings for devices up to 40 kVA.
- XL-F with fuse on plus and minus inputs
- XL-SPD 1+2 with surge protector equipment of type 1+2 per MPP tracker
- Park devices with 480 V output voltage for decentralized major photovoltaic systems, for connection to external transformers








The transformerless three-phase current inverters of the Powador TL3 series can be used internationally and are extremely flexible regarding their design.








Central inverters from 500 to 2000 kVA enable further efficient solutions for large-scale systems starting at 500 kWp.

GRID-CONNECTED INVERTERS Three-phased

Art. No.	0201241	0201247	0201242	0201248	0201243
					
Model	Kaco Powador 30.0 TL3 M INT	Kaco Powador 30.0 TL3 XL INT	Kaco Powador 36.0 TL3 M INT	Kaco Powador 36.0 TL3 XL INT	Kaco Powador 39.0 TL3 M INT
MPP voltage range	350 - 800 V	350 - 800 V	350 - 800 V	350 - 800 V	350 - 800 V
Open circuit voltage	1000 V	1000 V	1000 V	1000 V	1000 V
Max. input current	3 x 34 A	3 x 34 A	3 x 34 A	3 x 34 A	3 x 34 A
Nominal output	25000 W	25000 W	30000 W	30000 W	33300 W
Max. DC power	30000 W	30000 W	36000 W	36000 W	39000 W
MPP tracker	3 pc.	3 pc.	3 pc.	3 pc.	3 pc.
Output voltage	400 / 230 V	400 / 230 V	400 / 230 V	400 / 230 V	400 / 230 V
Power factor cos phi	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Harmonic distortion	< 3 %	< 3 %	< 3 %	< 3 %	< 3 %
Max. efficiency	98.0 %	98.0 %	98.0 %	98.0 %	98.0 %
Euro efficiency	97.0 %	97.0 %	97.0 %	97.0 %	97.0 %
Night-time consumption	< 1 W	< 1 W	< 1 W	< 1 W	< 1 W
Ambient temperature	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Heat dissipation	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan
Protection mode	IP54	IP54	IP54	IP54	IP54
Circuit type	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased
Grid monitoring	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant
Display	Graphic display & LED	Graphic display & LED	Graphic display & LED	Graphic display & LED	Graphic display & LED
DC load disconnecter	Integrated	Integrated	Integrated	Integrated	Integrated
Line fuses	-	Integrated	-	Integrated	-
Surge protection	-	Integrated	-	Integrated	-
Casing	Sheet steel	Sheet steel	Sheet steel	Sheet steel	Sheet steel
Dimensions (W / H / D)	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm
Weight	151 kg	151 kg	151 kg	151 kg	151 kg
Warranty*	5 years	5 years	5 years	5 years	5 years
Norms	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1





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Three-phased GRID-CONNECTED INVERTERS

Art. No.	0201249	0201284	0201285	0201286	0201287
					
Model	Kaco Powador 39.0 TL3 XL INT	Kaco Powador 40.0 TL3 M INT	Kaco Powador 40.0 TL3 XL INT	Kaco Powador 48.0 TL3 Park M INT	Kaco Powador 48.0 TL3 Park XL INT
MPP voltage range	350 - 800 V	350 - 800 V	350 - 800 V	410 - 800 V	410 - 800 V
Open circuit voltage	1000 V	1000 V	1000 V	1000 V	1000 V
Max. input current	3 x 34 A	3 x 34 A	3 x 34 A	3 x 34 A	3 x 34 A
Nominal output	33300 W	36000 W	36000 W	40000 W	40000 W
Max. DC power	39000 W	40000 W	40000 W	48000 W	48000 W
MPP tracker	3 pc.	3 pc.	3 pc.	3 pc.	3 pc.
Output voltage	400 / 230 V	400 / 230 V	400 / 230 V	480 / 277 V	480 / 277 V
Power factor cos phi	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Harmonic distortion	< 3 %	< 3 %	< 3 %	< 3 %	< 3 %
Max. efficiency	98.0 %	98.0 %	98.0 %	98.0 %	98.0 %
Euro efficiency	97.0 %	97.8 %	97.8 %	97.8 %	97.8 %
Night-time consumption	< 1 W	1.5 W	1.5 W	1.5 W	1.5 W
Ambient temperature	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Heat dissipation	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan
Protection mode	IP54	IP54	IP54	IP54	IP54
Circuit type	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased
Grid monitoring	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant
Display	Graphic display & LED	Graphic display & LED	Graphic display & LED	Graphic display & LED	Graphic display & LED
DC load disconnecter	Integrated	Integrated	Integrated	Integrated	Integrated
Line fuses	Integrated	-	Integrated	-	Integrated
Surge protection	Integrated	-	Integrated	-	Integrated
Casing	Sheet steel	Sheet steel	Sheet steel	Sheet steel	Sheet steel
Dimensions (W / H / D)	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm
Weight	151 kg	151 kg	151 kg	151 kg	151 kg
Warranty*	5 years	5 years	5 years	5 years	5 years
Norms	DIN VDE 0126, VDE-ARN 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-ARN 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-ARN 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000	DIN VDE 0126, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000

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GRID-CONNECTED INVERTERS Three-phased

Art. No.	0201288	0201289	0201290	0201291
				
Model	Kaco Powador 60.0 TL3 M INT	Kaco Powador 60.0 TL3 XL INT	Kaco Powador 72.0 TL3 Park M INT	Kaco Powador 72.0 TL3 Park XL INT
MPP voltage range	480 - 850 V	480 - 850 V	580 - 850 V	580 - 850 V
Open circuit voltage	1000 V	1000 V	1000 V	1000 V
Max. input current	3 x 36 A	3 x 36 A	3 x 36 A	3 x 36 A
Nominal output	49900 W	49900 W	60000 W	60000 W
Max. DC power	60000 W	60000 W	72000 W	72000 W
MPP tracker	3 pc.	3 pc.	3 pc.	3 pc.
Output voltage	400 / 230 V	400 / 230 V	480 / 277 V	480 / 277 V
Power factor cos phi	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive	0.8 inductive, 0.8 capacitive
Frequency	50 Hz	50 Hz	50 Hz	50 Hz
Harmonic distortion	< 3 %	< 3 %	< 3 %	< 3 %
Max. efficiency	98.0 %	98.0 %	98.0 %	98.0 %
Euro efficiency	97.8 %	97.8 %	97.8 %	97.8 %
Night-time consumption	1.5 W	1.5 W	1.5 W	1.5 W
Ambient temperature	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Heat dissipation	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan	Forced cooling / speed-controlled fan
Protection mode	IP54	IP54	IP54	IP54
Circuit type	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased	Transformerless, three-phased
Grid monitoring	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant	DIN V VDE 0126-1-1, VDEW-compliant
Display	Graphic display & LED	Graphic display & LED	Graphic display & LED	Graphic display & LED
DC load disconnecter	Integrated	Integrated	Integrated	Integrated
Line fuses	-	Integrated	-	Integrated
Surge protection	-	Integrated	-	Integrated
Casing	Sheet steel	Sheet steel	Sheet steel	Sheet steel
Dimensions (W / H / D)	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm	840 mm / 1360 mm / 355 mm
Weight	173 kg	173 kg	173 kg	173 kg
Warranty*	5 years	5 years	5 years	5 years
Norms	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, VDE-AR-N 4105, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000, EN 50438, CEI 0-21, C10/11 06.2012, G59/2, G83/1	DIN VDE 0126, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000	DIN VDE 0126, IEC 62109-1:2010, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 61000-3-12:2005, EN 61000-3-11:2000

* - For Kaco Powador 30.0 to 48.0, extendable to 10 / 15 / 20 / 25 years – For Kaco Powador 60.0 and 72.0, extendable to 10 years – Service contract possible starting at 1 MW