

## Kaco Powador 00 Series Inverters without transformers

### Higher efficiency

Without transformers, the inverters of the Kaco 00 series achieve optimal efficiency. As a specialist for inverters without transformers, Kaco has equipped all devices of the 00 series with a full bridge and omitted the boost converters. The self-controlled devices emulate the sinus voltage curve of the public power grid using a H4 bridge. Prerequisite for using the 00 series inverters is an input voltage higher than the grid peak voltage.

### Simple installation

With a MPP range of 350 to 600 V and an off-load voltage of 800 V the conditions for a simple system dimensioning are ideal. The devices are connected to the grid by screw terminals. The redundant 3-phase monitoring, including an AC/DC sensitive residual-cur-

rent-operated protective device, facilitates the grid connection, even in the case of systems with several inverters.

### Long service life

All inverters operate up to outputs of 8 kW with silent and purely passive cooling. The lost heat is optimally dissipated by the cooling element on the back. This cooling without mechanical fans reduces error sources and thus achieves a long life-cycle of the devices.

### 100 % feed-in

The Kaco Powador 7900 was specifically developed for applications with connections limits of 20 kW. Due to the 100 % symmetrical feed-in of 20 kW, not one watt of power is wasted, not even in Spain, Italy or Greece.








The Powador 3200 – 5500 without transformers can be single-phase connected individually, due to their nominal output.







The single-phase Powador 6600 – 9600 have a nominal output of more than 5 kW; for this reason the unbalanced load between feed-in phases should be considered during the dimensioning.

## GRID-CONNECTED INVERTERS Single-phased

Art. No.	0201462	0201463	0201464	0201465	0201466
					
Model	Kaco Powador 3200 DCS INT	Kaco Powador 4400 DCS INT	Kaco Powador 5300 DCS INT	Kaco Powador 5500 DCS INT	Kaco Powador 6600 DCS INT
MPP voltage range	350 - 600 V	350 - 600 V	350 - 600 V	350 - 600 V	350 - 600 V
Open circuit voltage	800 V	800 V	800 V	800 V	800 V
Max. input current	8.6 A	12.0 A	14.5 A	15.2 A	18.0 A
Nominal output	2600 W	3600 W	4400 W	4600 W	5500 W
Max. DC power	3200 W	4400 W	5300 W	5500 W	6600 W
MPP tracker	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.
Output voltage	190 - 264 V	190 - 264 V	190 - 264 V	190 - 264 V	190 - 264 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	96.6 %	96.5 %	96.4 %	96.3 %	96.3 %
Euro efficiency	95.8 %	95.9 %	95.8 %	95.7 %	95.8 %
Night-time consumption	0 W	0 W	0 W	0 W	0 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	Free convection / no fan	Free convection / no fan	Free convection / no fan	Free convection / no fan	Free convection / no fan
Protection mode	IP54	IP54	IP54	IP54	IP54
Circuit type	Self-controlled, transformerless	Self-controlled, transformerless	Self-controlled, transformerless	Self-controlled, transformerless	Self-controlled, transformerless
DC load disconnecter	Integrated	Integrated	Integrated	Integrated	Integrated
Grid monitoring	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105
Display	Two-line LC display	Two-line LC display	Two-line LC display	Two-line LC display	Two-line LC display
Connection	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>
Casing	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Dimensions (W / H / D)	500 mm / 340 mm / 200 mm	550 mm / 340 mm / 220 mm	550 mm / 340 mm / 220 mm	600 mm / 340 mm / 220 mm	600 mm / 340 mm / 220 mm
Weight	19 kg	21 kg	26 kg	28 kg	30 kg
Warranty	10 years	10 years	10 years	10 years	10 years
Norms	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105

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## Single-phased GRID-CONNECTED INVERTERS

Art. No.	0201467	0201468	0201469	0201470
				
Model	Kaco Powador 7700 DCS INT	Kaco Powador 7900 DCS INT	Kaco Powador 8600 DCS INT	Kaco Powador 9600 DCS INT
MPP voltage range	350 - 600 V	350 - 600 V	350 - 600 V	350 - 600 V
Open circuit voltage	800 V	800 V	800 V	800 V
Max. input current	19.0 A	19.7 A	21.4 A	24.0 A
Nominal output	6400 W	6650 W	7200 W	8000 W
Max. DC power	7700 W	7900 W	8600 W	9600 W
MPP tracker	1 pc.	1 pc.	1 pc.	1 pc.
Output voltage	190 - 264 V	190 - 264 V	190 - 264 V	190 - 264 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	96.6 %	96.7 %	96.6 %	96.6 %
Euro efficiency	96.2 %	96.2 %	96.2 %	96.2 %
Night-time consumption	0 W	0 W	0 W	0 W
Ambient temperature	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Heat dissipation	Free convection / no fan	Free convection / no fan	Free convection / no fan	Free convection / no fan
Protection mode	IP54	IP54	IP54	IP54
Circuit type	Self-controlled, transformerless	Self-controlled, transformerless	Self-controlled, transformerless	Self-controlled, transformerless
DC load disconnecter	Integrated	Integrated	Integrated	Integrated
Grid monitoring	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, VDE AR-N 4105
Display	Two-line LC display	Two-line LC display	Two-line LC display	Two-line LC display
Connection	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>	PCB clip up to max. 10 mm <sup>2</sup>
Casing	Aluminium	Aluminium	Aluminium	Aluminium
Dimensions (W / H / D)	810 mm / 340 mm / 220 mm	810 mm / 340 mm / 220 mm	810 mm / 340 mm / 220 mm	810 mm / 340 mm / 220 mm
Weight	38 kg	38 kg	38 kg	38 kg
Warranty	10 years	10 years	10 years	10 years
Norms	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105	DIN VDE 0126-1-1:2006-02, EN 50178, DIN EN 50178, IEC 62103, RAL seal of approval (RAL GZ 966), VDE AR-N 4105

