KACO new energy.

Powador 5000xi

Less is More: No Transformer, Lots of Power.

The Powador 2500xi – 5000xi transformerless string inverters.

Inverters without transformers offer a higher degree of efficiency. And KACO specialises in transformerless inverters.

This means: All of our single-phase units in the 00xi series operate with a full bridge without a step-up converter. According to the principle of pulse width modulation, four IGBT power switches emulate the sinusoidal voltage curve of the public power grid. This is also known as an H4 bridge and self-commutated units. However, the input voltage must be greater than the peak line voltage for it to be used. All KACO transformerless inverters are purposely equipped with a wide MPP range of 350 V to 600 V. The no-load voltage is 800 V, which simplifies the work of installers as the installation is laid out. This is also true of the integrated DC disconnector. Screw terminals make connecting to the grid easy. That makes it possible for you to connect installations with several inverters to the grid without additional measures.

All Powador inverters with an output up to and including 8 kW operate with purely passive, silent convection cooling. The heat that is lost is, to a great degree, dissipated via the heat sink on the rear of the unit. The rest of the heat is radiated from the surface of the aluminium housing. No fans, no problems, long life.

Highlights

- Integrated DC disconnector
- Integrated AC/DC-sensitive residual current protection
- Integrated potential-free fault signal
- S0 interface for control of large displays
- Highest degree of efficiency due to purely transformerless technology
- Pure convection cooling
- Easy installation due to mounting plate and housing doors
- MPP controller

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Electrical data	5000xi
Input variables	
PV max. generator output	6800 W
MPP range	350 V … 600 V
No-load voltage	800 V
Max. input current	18.0 A
Number of strings	3
Number of MPP controllers	1
Inverse polarity protection	short-circuit diode
Overload protection	integrated
Output variables	
Rated output	5500 W
Max. output	6000 W
Supply voltage	acc. to local requirements
Safety cut-out	acc. to local requirements
Rated current	23.9 A
Max. current	26.0 A
Rated frequency	50 Hz / 60 Hz
cos phi	≈ 1
Number of grid phases	1
Distortion factor for rated output	< 3 %
General electrical data	
Max. efficiency	96.3 %
European efficiency	95.3 %
Standby consumption	11 W
Night consumption	0 W
Min. grid feed	approx. 35 W
Switching plan	self-inverted, transformerless
Network monitoring	acc. to local requirements
Mechanical data	
Display	LCD 2 x 16 characters
Control units	2 buttons for display control
Interfaces	RS232 / RS485, S0
Fault signalling relay	potential-free NOC max. 30 V / 1 A
Connections	PCB terminals within the device (max. cross section: 10 mm²) Cable supply via cable connections (DC-connection M16, AC-connection M32)
Ambient temperature	-20 °C … +60 °C *
Temperature monitoring	> 75 °C temperature-dependent impedance matching > 85 °C cut-out
Cooling	free convection / no fan
Protection class	IP54
Noise emission	< 35 dB (A) (noiseless)
DC-switch	integrated
Casing	Aluminium
H x W x D	600 x 340 x 220 mm
Weight	30 kg

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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.

* Derating at higher temperatures

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Your retailer

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