



K A C O 
new energy.

Powador
5300 supreme

Peak output made simple.

The transformerless string inverter Powador 5300 supreme.

The Powador 5300 supreme* was designed with one goal in mind: The highest degree of efficiency and the highest yields. As a transformerless inverter, it already brings to the table the best possible prerequisites for reaching this goal. Its MPP range is from 350 V to 510 V and the no-load voltage is 600 V: That makes it an inverter for users who know exactly what they want.

With the standard setting, the Powador 5300 supreme works with a clock frequency of 17 kHz. For those who want to get even more from the unit, it operates in Power Boost Mode at a clock frequency of 9 kHz via a jumper on the control circuit board. That reduces even further the already low switching losses of the power semiconductor and makes the degree of efficiency even higher. This

operating mode is recommended for locations where the resulting operating noise will not matter.

The Powador 5300 supreme has the same basic features as the other transformerless KACO inverters (Powador 3200 to Powador 6600).

* Successor to Powador 4000 supreme inverter

Highlights

- Power Boost on/off:
9 kHz / 17 kHz
(selectable clock frequency)
- Integrated DC-switch
- Integrated potential-free fault signalling
- Protection rating IP54
- Silent, maintenance-free convection cooling
- Easy installation with mounting plate and housing doors
- LCD as standard
- 5-years factory warranty plus 2 years when the unit is registered



Powador 5300 supreme

Electrical data		5300 supreme
Input variables		
Max. PV generator output		5 300 W
MPP range		350 V ... 510 V
No-load voltage		600 V*
Max. input current		14.5 A
Number of strings		3
Number of MPP controllers		1
Inverse polarity protection		short-circuit diode
Output variables		
Rated output		4 400 W
Max. output		4 800 W
Supply voltage		acc. to local requirements
Rated current		19.1 A
Rated frequency		50 Hz / 60 Hz
cos phi		0.80 inductive ... 0.80 capacitive
Number of grid phases		1
General electrical data		
Max. efficiency		97.0 % (97.2 % @ 9 kHz)
European efficiency		96.6 % (96.8 % @ 9 kHz)
Night consumption		0 W
Switching plan		self-commutated, 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. 250 V / 1 A
Connections		PCB terminals within the device (max. cross section: 10 mm ²). 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) @ 17 kHz
DC-switch		integrated
Casing		Aluminium
H x W x D		550 x 340 x 220 mm
Weight		26 kg

* To protect the hardware, the unit starts up at < 550 V / ** Power derating at high ambient temperatures

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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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