

## Powador 2002

# High Flexibility. Easy Installation.

The next generation of our galvanically isolated string inverters.

The Powador 2002, with galvanic isolation, features effortless installation, the highest degrees of efficiency, and optimum operation with thin-film modules – and makes dimensioning installations a piece of cake.

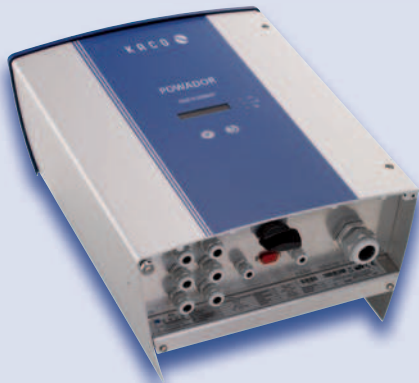
Installation is problem-free: All required connections are located on a single circuit board in the housing and can be connected easily. The DC-switch is integrated into the unit as a matter of course. The Powador 2002 achieves an outstanding efficiency of close to 96%.

Using the Powador 2002, you can build your next PV installation wherever you like: The software knows the international requirements. This helps you to quickly and easily connect your PV installation to the grid – simply select the appropriate

country setting and display language during installation.

The Powador 2002 skilfully makes use of the advantages of galvanically isolated inverters. The wide input voltage range allows you to be extremely flexible in planning your PV installation. Where transformerless units are out of the question, the Powador 2002 can handle even complex PV system designs.

In addition, KACO offers a generator earthing kit for the inverters of the Powador 02 series. Thin-film modules often require generator earthing for a long service life. Moreover, the inverters can display the earthing status of the PV generator – important information especially for the safe operation of thin-film modules.



## Powador 2002

### Highlights

- Degree of efficiency 95.9%
- Optimized MPP tracking for higher yield
- Wide range of input voltages for flexible installation planning
- Integrated DC disconnecter
- Galvanically isolated
- Optimally suited for thin-film modules

Electrical data		2002
<b>Input variables</b>		
PV max. generator power		2 000 W
MPP range		125 V ... 510 V
No-load voltage		600 V *
Max. input current		14.3 A
Number of strings		3
Number of MPP controllers		1
Inverse polarity protection		short-circuit diode
Oversvoltage protection		integrated
<b>Output variables</b>		
Rated power		1 650 W
Max. power		1 650 W
Supply voltage		acc. to local requirements
Safety cut-out		acc. to local requirements
Rated current		7.2 A
Max. current		8.0 A
Rated frequency		50 Hz
cos phi		≈ 1
Number of grid phases		1
Distortion factor for rated output		< 3%
<b>General electrical data</b>		
Max. efficiency		95.9%
European efficiency		95.3%
Standby consumption		< 5 W
Night consumption		0.4 W
Min. grid power		10 W
Switching plan		self-commutated, galvanically isolated, HF transformer
Network monitoring		acc. to local requirements
<b>Mechanical data</b>		
Display		LCD 2 x 16 characters, LED
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 inside the unit (max. cross section. 6 mm <sup>2</sup> flexible, 10 mm <sup>2</sup> rigid) Cable connection via cable fittings (DC fitting M16, AC fitting M32)
Ambient temperature		-20 °C ... +60 °C **
Cooling		free convection (no fan)
Protection class		IP54
Noise emission		< 35 dB (A) (noiseless)
DC-switch		integrated
Casing		Aluminium
H x W x D		450 x 340 x 200 mm
Weight		12 kg

Applicable standards and regulations are taken into account for each country version that is set.

The text and figures reflect the current technical state at the time of printing. Subject to technical changes. Errors and omissions excepted.  
\*\* To protect the hardware, the inverter starts up only at < 550 V \*\* Power derating at high ambient temperatures

EN 31000526-01-090514