



## Powador 6400xi

# Champions of the middleweights.

The Powador 6400xi – 8000xi transformerless string inverters.

KACO is represented by four units in the class of units with power ratings between small string inverters and large central inverters. The success of the Powador 8000xi was the prompt for offering the proven design in additional power levels. All units include transformerless topology without a step-up converter. DC disconnectors and string fuses are already integrated. This provides maximum safety for the system operator and makes the installer's job easier.

For a strong performance, this inverter was designed as a trio, with each unit feeding into one of the three phases. This allows each unit to optimally utilise the voltage range of a photovoltaic installation that has been divided into three sub-generators. The integrated SYM bus assures that in the event of asymmetry,

the maximum permissible limit of 4.6 kW is not exceeded even if there is a fault in a unit. This makes these units an alternative to central inverters, depending on the system layout. Since all inverters of the 00xi series can also be freely combined, our string inverters allow you almost unlimited freedom in planning, from 2 kW up to the megawatt class.

### NEW

We developed the Powador 6650xi especially for 100 % symmetrical grid-feeding in countries that set a "connection limit" at 20 kW for various reasons, such as Spain, Italy or Greece. Three Powador 6650xi inverters allow you to hit the 20 kW bullseye. So you don't waste a single watt!

### Highlights

- Integrated string fuses for up to 4 strings
- Additional asymmetry monitoring via special KACO SYM bus
- Integrated DC disconnector
- RS485 interface mode adjustable via controls
- Highest degree of efficiency thanks to entirely transformerless technology
- Durable, reliable KACO quality
- Protection class IP54
- Easy installation with mounting plate and housing doors
- LCD as standard
- 7 year guarantee as standard
- Compatible with all KACO data logging products



## Powador 6400xi

Electrical data	6400xi
<b>Input variables</b>	
PV max. generator output	7 200 W
MPP range	350 V ... 600 V
No-load voltage	800 V
Max. input current	19.0 A
Number of strings	4
Number of MPP controllers	1
String fuses	4 x 10 A
Inverse polarity protection	short-circuit diode
Overload protection	integrated
<b>Output variables</b>	
Rated output	6 400 W
Max. output	6 400 W
Supply voltage	acc. to local requirements
Safety cut-out	acc. to local requirements
Rated current	27.8 A
Max. current	27.8 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	96.5 %
European efficiency	95.8 %
Standby consumption	11 W
Night consumption	0 W
Min. grid feed	approx. 35 W
Switching plan	self-commutated, transformerless
Network monitoring	acc. to local requirements
<b>Mechanical data</b>	
Display	LCD 2 x 16 characters
Control units	2 buttons for display control
Interfaces	RS485, S0, Sym-Bus
Fault signalling relay	potential-free NOC max. 30 V / 1 A
Connections	<p><b>AC-connection:</b> PCB terminals within device (max. cross section: 10 mm<sup>2</sup>), cable supply via cable connection (M32). <b>DC-connection:</b> 4 strings via PCB terminals (max. cross section: 6 mm<sup>2</sup>), cable supply via cable connections (M16). <b>Optional DC-connection:</b> 1 x Plus, 1 x Minus without string fuses via PCB terminals (max. cross section: 10 mm<sup>2</sup>)</p>
Ambient temperature	-20 °C ... +60 °C *
Temperature monitoring	temperature-dependent impedance matching with emergency cut-out when device errors occur
Cooling	free convection / no fan
Protection class	IP54
Noise emission	< 35 dB (A) (noiseless)
DC-switch	integrated
Casing	Aluminium
H x W x D	810 x 340 x 220 mm
Weight	38 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