



K A C O 
new energy.

Powador
16.0 TR3
18.0 TR3

The Power Plants of the Future. With Transformer.

Galvanically isolated Powador 16.0 TR3 and 18.0 TR3 three-phase inverters.

Are you designing a larger solar system with modules that need to be earthed? Powador 16.0 TR3 and 18.0 TR3 three-phase inverters are galvanically isolated units that provide the perfect solution for safely connecting your system to the grid. Since they are true three-phase units, they provide high-quality, sinusoidal alternating current with a 120-degree phase shift – a dream come true for all grid operators.

Three strings can be connected for each MPP controller, which means that the units can process the solar power from nine strings. They operate with three separate MPP trackers to allow for optimum adjustment. The peak efficiency is 96.2%. Cooling is provided by demand-driven fans that are aimed directly at the temperature-sensitive components.

It is easy to achieve perfect communication with the two units. In addition to the normal RS485 interface, which enables you to query yield data with the Powador-proLOG, they offer innovations that provide a lot of convenience: an integrated web server for uninterrupted monitoring via Ethernet, a USB connection for installing software updates and downloading all log data, as well as a graphic display to view operating data.

A number of country-specific default settings are programmed into the inverters. These are easy to select during on-site installation.

Highlights

- Three-phase inverter
- Optimised for thin-film modules
- Three MPP trackers
- Degree of efficiency: 96.2%
- Multilingual menu
- Graphical display
- Integrated web server
- USB connection for updates and downloads

Technical Data

Powador 16.0 TR3 | 18.0 TR3

Electrical data		16.0 TR3
Input variables		
PV max. generator output		16000 W
MPP range		200 V ... 510 V
No-load voltage		600 V*
Max. input current		3 x 26 A
Number of strings		3 x 3
Number of MPP controllers		3
Output variables		
Rated output		13500 VA
Supply voltage		acc. to local requirements
Rated current		3 x 19.5 A
Rated frequency		50 Hz / 60 Hz
cos phi		0.80 inductive ... 0.80 capacitive
Number of grid phases		3
General electrical data		
Max. efficiency		96.2 %
European efficiency		95.6 %
Night consumption		1.9 W
Switching plan		self-commutated, galvanically isolated, HF transformer
Network monitoring		acc. to local requirements
Mechanical data		
Display		graphical display + LEDs
Control units		4-way navigation + 2 buttons
Interfaces		Ethernet, USB, RS485, S0 output
Fault signalling relay		potential-free NOC max. 230 V / 1 A
Connections		screw terminals within the device (max. cross section: 16 mm ² flexible) cable supply via cable connections (DC-connection M16, AC-connection M40)
Ambient temperature		-25 °C ... +60 °C**
Cooling		fan
Protection class		IP54
Noise emission		< 45 dB (A) (noiseless when operated without fan)
DC switch		integrated
Casing		aluminium casting
H x W x D		948 x 510 x 269 mm
Weight		approx. 80 kg

* To protect the hardware, the inverter starts up only at < 550 V ** Power derating at high ambient temperatures
Applicable standards and regulations are taken into account for each country version that is set.

Electrical data		18.0 TR3
Input variables		
PV max. generator output		18000 W
MPP range		200 V ... 510 V
No-load voltage		600 V*
Max. input current		3 x 26 A
Number of strings		3 x 3
Number of MPP controllers		3
Output variables		
Rated output		15000 VA
Supply voltage		acc. to local requirements
Rated current		3 x 21.7 A
Rated frequency		50 Hz / 60 Hz
cos phi		0.80 inductive ... 0.80 capacitive
Number of grid phases		3
General electrical data		
Max. efficiency		96.2 %
European efficiency		95.6 %
Night consumption		1.9 W
Switching plan		self-commutated, galvanically isolated, HF transformer
Network monitoring		acc. to local requirements
Mechanical data		
Display		graphical display + LEDs
Control units		4-way navigation + 2 buttons
Interfaces		Ethernet, USB, RS485, S0 output
Fault signalling relay		potential-free NOC max. 230 V / 1 A
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