



Data sheet

Powador

7700 | 7900

8600 | 9600

Champions of the middleweights.

The transformerless string inverters Powador 7700 to 9600.

All Powador 7700 to 9600 units are equipped with digital controllers so that they can be used internationally. The appropriate country settings can easily be selected on-site; the country-specific settings are stored in the software, so the inverters can be quickly and easily installed anywhere in the world. The menu language can be selected independently of the country-specific settings.

All three units include transformerless topology without a step-up converter.

DC switch is already integrated. This provides maximum safety and reliability for the system operator and makes the installer's job easier.

These inverters are 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 system that has been divided into three sub-generators. The integrated Sym-Bus ensures that any potential asymmetry does not exceed the

maximum permitted limit, even when there is a fault in a unit. They represent an alternative to central inverters (depending on the system design).

We provide a 10 year warranty on these units. In each case please observe the most current version of our Warranty and Service Conditions which you can download at www.kaco-newenergy.com.

Technical data

Powador 7700 | 7900 | 8600 | 9600

| Electrical data | 7700 | 7900 |
|------------------------------------|---|---|
| Input variables | | |
| MPP range | 350 V ... 600 V | 350 V ... 600 V |
| No-load voltage | 800 V | 800 V |
| Max. input current | 19.0 A | 19.7 A |
| Number of strings | 4 | 4 |
| Number of MPP trackers | 1 | 1 |
| String fuses | 2 short-circuit bridges (fuses optional) | 2 short-circuit bridges (fuses optional) |
| Inverse polarity protection | short-circuit diode | short-circuit diode |
| Output variables | | |
| Rated output | 6400 VA | 6650 VA |
| Supply voltage | acc. to local requirements | acc. to local requirements |
| Rated current | 27.8 A | 28.9 A |
| Rated frequency | 50 Hz/60 Hz | 50 Hz/60 Hz |
| cos phi | 0.80 inductive ... 0.80 capacitive | 0.80 inductive ... 0.80 capacitive |
| Number of grid phases | 1 | 1 |
| General electrical data | | |
| Max. efficiency | 96.6 % | 96.7 % |
| European efficiency | 96.2 % | 96.2 % |
| Night consumption | 0 W | 0 W |
| Switching plan | transformerless | transformerless |
| Grid monitoring | acc. to local requirements | acc. to local requirements |
| Mechanical data | | |
| Display | LCD 2 x 16 characters | LCD 2 x 16 characters |
| Control units | 2 buttons for display control | 2 buttons for display control |
| Interfaces | RS485, S0, Sym-Bus | RS485, S0, Sym-Bus |
| Fault signalling relay | potential-free NOC max. 250 V / 1 A | potential-free NOC max. 250 V / 1 A |
| Connections | AC connection: PCB terminals within device (max. cross section: 10 mm ²), cable supply via cable connection (M32). DC connection: 4 strings via PCB terminals (max. cross section: 6 mm ²), cable supply via cable connections (M16). Optional DC connection: 1 x Plus, 1 x Minus without string fuses via PCB terminals (max. cross section: 10 mm ²). | AC connection: PCB terminals within device (max. cross section: 10 mm ²), cable supply via cable connection (M32). DC connection: 4 strings via PCB terminals (max. cross section: 6 mm ²), cable supply via cable connections (M16). Optional DC connection: 1 x Plus, 1 x Minus without string fuses via PCB terminals (max. cross section: 10 mm ²). |
| Ambient temperature | -20 °C ... +60 °C* | -20 °C ... +60 °C* |
| Temperature monitoring power stage | temperature-dependent power limitation with emergency cut-out when device errors occur | temperature-dependent power limitation with emergency cut-out when device errors occur |
| Cooling | free convection / no fan | free convection / no fan |
| Protection class | IP54 | IP54 |
| Noise emission | < 35 dB (A) | < 35 dB (A) |
| DC switch | integrated | integrated |
| Casing | aluminium | aluminium |
| H x W x D | 810 x 340 x 220 mm | 810 x 340 x 220 mm |
| Weight | 38 kg | 38 kg |

* Derating at higher temperatures

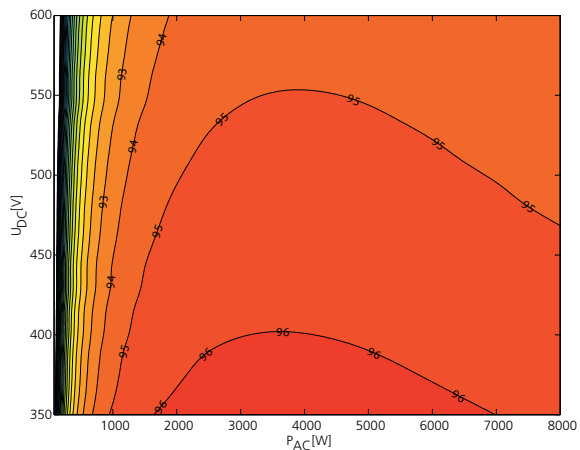
| Electrical data | 8600 | 9600 |
|------------------------------------|---|---|
| Input variables | | |
| MPP range | 350 V ... 600 V | 350 V ... 600 V |
| No-load voltage | 800 V | 800 V |
| Max. input current | 21.4 A | 24.0 A |
| Number of strings | 4 | 4 |
| Number of MPP trackers | 1 | 1 |
| String fuses | 2 short-circuit bridges (fuses optional) | 2 short-circuit bridges (fuses optional) |
| Inverse polarity protection | short-circuit diode | short-circuit diode |
| Output variables | | |
| Rated output | 7200 VA | 8000 VA |
| Supply voltage | acc. to local requirements | acc. to local requirements |
| Rated current | 31.3 A | 35.0 A |
| Rated frequency | 50 Hz/60 Hz | 50 Hz/60 Hz |
| cos phi | 0.80 inductive ... 0.80 capacitive | 0.80 inductive ... 0.80 capacitive |
| Number of grid phases | 1 | 1 |
| General electrical data | | |
| Max. efficiency | 96.6 % | 96.6 % |
| European efficiency | 96.2 % | 96.2 % |
| Night consumption | 0 W | 0 W |
| Switching plan | transformerless | transformerless |
| Grid monitoring | acc. to local requirements | acc. to local requirements |
| Mechanical data | | |
| Display | LCD 2 x 16 characters | LCD 2 x 16 characters |
| Control units | 2 buttons for display control | 2 buttons for display control |
| Interfaces | RS485, S0, Sym-Bus | RS485, S0, Sym-Bus |
| Fault signalling relay | potential-free NOC max. 250 V / 1 A | potential-free NOC max. 250 V / 1 A |
| Connections | AC connection: PCB terminals within device (max. cross section: 10 mm ²), cable supply via cable connection (M32). DC connection: 4 strings via PCB terminals (max. cross section: 6 mm ²), cable supply via cable connections (M16). Optional DC connection: 1 x Plus, 1 x Minus without string fuses via PCB terminals (max. cross section: 10 mm ²). | AC connection: PCB terminals within device (max. cross section: 10 mm ²), cable supply via cable connection (M32). DC connection: 4 strings via PCB terminals (max. cross section: 6 mm ²), cable supply via cable connections (M16). Optional DC connection: 1 x Plus, 1 x Minus without string fuses via PCB terminals (max. cross section: 10 mm ²). |
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Graphical Display of efficiency

3D efficiency diagram for Powador 9600



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Capable of reactive power

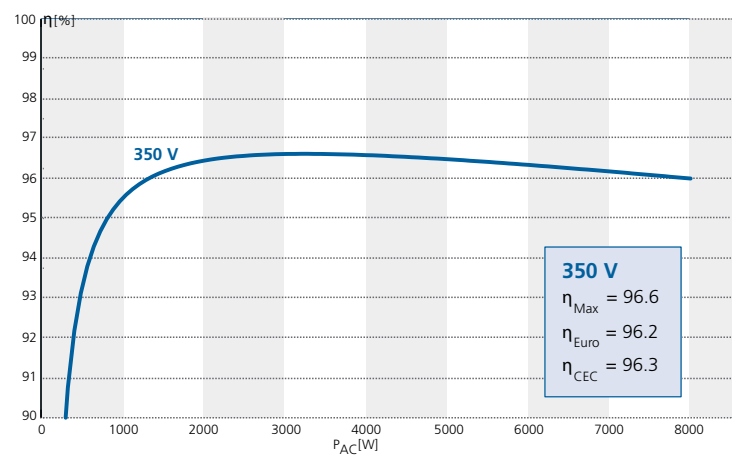
Additional asymmetry monitoring via special KACO Sym-Bus

Preconfigured international country settings

Menu language can be chosen as required

Silent, maintenance-free convection cooling

Efficiency characteristic curve for Powador 9600



Your retailer