

Data sheet

Powador

36.0 TL3 M1

39.0 TL3 M1



Efficient. Flexible. Future-Proof.

The three-phase, 36.0 and 39.0 TL3 M1 transformerless inverters for use with string collectors.

The three-phase Powador 36.0 TL3 M1 and 39.0 TL3 M1 inverters are particularly suitable for the decentralised installation of photovoltaic systems for commercial and industrial applications, such as hangars and factory roofs.

These units give you extreme flexibility in designing your PV system when used in combination with string collectors. The input voltage range is particularly broad and the inverters switch to the grid from 250 V onwards. Maximum efficiency amounts to approx. 98% and the 97.8% European efficiency is also quite remarkable. Even in the lower performance ranges, the appliances achieve very high partial load efficiency: At just 5% rated power they operate at 95% efficiency.

It is easy to achieve perfect communication with these units too. They are fitted with an integrated data logger with web server, a graphical display for showing operating data and a USB port for installing firmware updates. The current software can be downloaded free of charge from the download area of our homepage.

The yield data can be called up using a USB stick, as well as via the web server for evaluation. The integrated data logger can also be connected directly to the Powador-web internet portal for professional evaluation and visualisation of the inverter data. A number of country-specific default settings are already programmed into the inverters and the-

se can easily be selected during on-site installation. The interface language can be selected independently of these. The inverters fulfil all guidelines and fully support the Powador-protect functions for the purposes of protecting the grid and the array, as well as carrying out performance management in accordance with the German Renewable Energy Law No. EEG 2012. The optimised DC connection area with serially-integrated type 2 surge protection opens up a number of cost advantages. In combination with an external string collector, such as the Powador Mini-Argus, PV arrays can be constructed at optimal costs.

Available in 1st Quarter, 2015.

Technical data

Powador 36.0 TL3 M1 | 39.0 TL3 M1

Electrical data	36.0 TL3 M1	39.0 TL3 M1
Input variables		
MPP range	200 V ... 800 V*	200 V ... 850 V**
Starting voltage	250 V	250 V
No-load voltage	1 000 V	1 000 V
Max. input current	102 A	102 A
Number of MPP trackers	1	1
Number of strings	1	1
Output variables		
Rated output (@ 230 V)	30 000 VA	33 300 VA
Line voltage	400 V / 230 V (3 / N / PE)	400 V / 230 V (3 / N / PE)
Rated current	3 x 43.5 A	3 x 48.5 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	3	3
General electrical data		
Max. efficiency	98.0 %	98.0 %
European efficiency	97.8 %	97.8 %
Night consumption	1.5 W	1.5 W
Switching plan	transformerless	transformerless
Surge protection	DC: type 2 / AC: type 3	DC: type 2 / AC: type 3
Grid monitoring	acc. to local requirements	acc. to local requirements
Mechanical data		
Display	graphical display + LEDs	graphical display + LEDs
Control units	4-way navigation + 2 buttons	4-way navigation + 2 buttons
Interfaces	Ethernet, USB, RS485, S0 output, digital input "inverter off"	Ethernet, USB, RS485, S0 output, digital input "inverter off"
Fault signalling relay	potential-free NOC max. 230 V / 1 A	potential-free NOC max. 230 V / 1 A
Connections	AC connection via screw terminals, bushing 1 x M50, max. cross section: 50 mm ² (flexible); DC connects via the DC switch directly, bushing 2 x M40, max. cross section: 70 mm ²	
Ambient temperature	-20 °C ... +60 °C***	-20 °C ... +60 °C***
Cooling	speed controlled fan, max. 600 m ³ / h	speed controlled fan, max. 600 m ³ / h
Protection class	IP54	IP54
Noise emission	58 dB (A) (only fan noise)	58 dB (A) (only fan noise)
DC switch	integrated	integrated
H x W x D	1 360 x 840 x 355 mm	1 360 x 840 x 355 mm
Weight	151 kg	151 kg

* The possible input power is reduced at voltages lower than 300 V. The input current is limited to 102 A per input.

** The possible input power is reduced at voltages lower than 350 V. The input current is limited to 102 A per input.

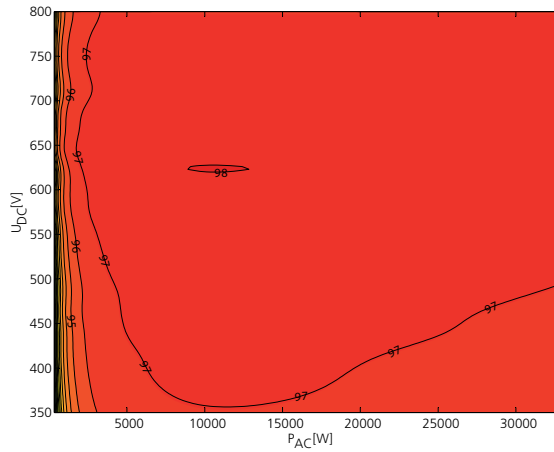
*** Power derating at high ambient temperatures.

Conforms to the country-specific standards and regulations according to the country version that has been set.



Graphical Display of efficiency

3D efficiency diagram for Powador 39.0 TL3



Powador 36.0 TL3 M1 | 39.0 TL3 M1

98.0 % efficiency

DC-side surge protection type 2
serially integrated

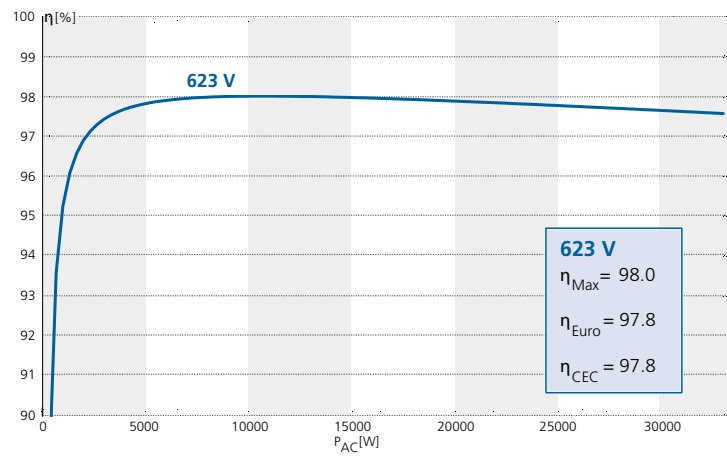
Multilingual menu

Further input voltage range
for flexible system design

Integrated web server

USB connection for updates

Efficiency characteristic curve for Powador 39.0 TL3



Your retailer