

Data sheet

Powador
XP500-HV TL indoor
XP550-HV TL indoor



Extremely powerful. Extremely reliable. Transformerless technology.

The central inverters Powador XP500-HV TL indoor and XP550-HV TL indoor.

The Powador XP500-HV TL and XP550-HV TL are our indoor central inverters for very flexible, efficient implementation of commercial and utility-scale solar power plants. State-of-the-art, DSP-based technology offers highest performance, reliability and efficiency. A digital interface enables user-friendly operation, maintainability and highly advanced monitoring and communication.

The unique control of power electronics clearly increases the switching efficiency of the power transistors: Depending on the input power that is currently present, one of several pulse-width modulation methods is used. This means higher levels of efficiency and better yields.

The Powador XP series guarantees highest reliability due to the use of a second-

ary backup power supply for the control board, and a highly efficient cooling system for critical components. The fans are monitored and operated based on load and ambient temperature.

The devices excel with a powerful, user-friendly graphical interface. The "all-inclusive" concept allows convenient operation and monitoring without requiring any additional equipment. A clearly structured, large TFT LCD color touchscreen shows detailed operating data in several languages.

You can also monitor your plant via the internet. This feature allows permanent monitoring of all critical components. The error tracing function reports potential error statuses of the units immediately.

The Powador XP central inverters meet global standards – with just the push of a button the parameters can be adjusted to meet local rules and regulations.

And of course, all XP inverters are able to feed in reactive power when needed.

Technical data

Powador XP500-HV TL indoor | Powador XP550-HV TL indoor

Electrical data	XP500-HV TL ID	XP550-HV TL ID
DC input		
MPP range	550 V ... 830 V	550 V ... 830 V
Operating range	550 V ... 1000 V	550 V ... 1000 V
No-load voltage	1 100 V ¹⁾	1 100 V ¹⁾
Max. input current	1 091 A	1 200 A
Number of DC inputs	6	6
AC output		
Rated output	500 kVA	550 kVA
Voltage to external transformer	3 x 370 V (+/- 10%)	3 x 370 V (+/- 10%)
Rated frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
Rated current	780 A	858 A
cos phi	0 inductive – 0 capacitive (adjustable)	0 inductive – 0 capacitive (adjustable)
General electrical data		
Max. efficiency	98.7 %	98.7 %
European efficiency	98.5 %	98.5 %
Consumption	< 1 650 W	< 1 650 W
Standby consumption	< 110 W	< 110 W
Auxiliary power supply	230 V	230 V
Mechanical data		
Display	TFT LCD Touchscreen	TFT LCD Touchscreen
Interfaces	2 x RS485 / Ethernet / USB 1 x digital input / -output SD card	2 x RS485 / Ethernet / USB 1 x digital input / -output SD card
Ambient temperature	-20 °C ... +50 °C full rated power, no derating	
Cooling	fan (max. 6 940 m³/h)	fan (max. 6 940 m³/h)
Protection class	IP21	IP21
Noise emission	< 70 dB(A) ²⁾	< 70 dB(A) ²⁾
H x W x D	2 120 x 2 400 x 870 mm	2 120 x 2 400 x 870 mm
Weight	1 656 kg	1 656 kg
Extras		
Ground fault detection	yes	yes
Protection against moisture	integrated hygostat and heating combination	
Emergency stop	yes	yes
Overvoltage protection DC/AC/Ethernet/control unit	yes	yes
Certifications		
CE-conformity	yes	
EMC	EN 61000-3-3/EN 61000-3-12/EN 61000-6-2/EN 61000-6-4	
Grid compliance	BDEW, ... for more see homepage/download area	

Conform to the country-specific standards and regulations according to what country version has been set.
¹⁾ To protect the hardware, the inverter starts up only at voltages < 1000 V. ²⁾ Measured at a 10 m distance.



Powador
XP500-HV TL indoor
XP500-HV TL indoor

Highest efficiency

Maximum power density

Maximum flexibility due to
transformerless design

Load-adaptive pulse-width
modulation

Continuous, remote monitoring

Your retailer