

VOLTAGE INVERTERS DC/AC 230 V

IPS

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The **IPS series of electronic voltage inverters** is used to supply electric devices requiring 230 V alternating voltage from accumulators and car installations with a constant voltage of 12 V or 24 V.

Inverters are perfect for places where there is no possibility of direct connection to the power grid. **The IPS series inverters produce the so-called modified sine wave.** It is an alternating voltage with a rectangular course, the effective value of which is identical to the effective value of a sinusoidal waveform occurring in the power grid. Thanks to the use of such voltage generation method, it is possible to significantly reduce the dimensions and increase the reliability of the whole device.

IPS series inverters are only suitable for powering electronic and electrical devices with a resistive load, such as bulbs, heaters, electronic power supplies, audio-video equipment, etc.

Don't connect devices equipped with transformers or induction motors to the inverter such as: some electric tools, household appliances, fluorescent lamps with electromagnetic ballasts, transformer power supplies, pumps, etc.

Remember about the correct polarity of wires connected to the battery (PLUS to PLUS and MINUS to MINUS). Reverse connection (PLUS to MINUS) may cause a short circuit and damage to the inverter and the connected load. After correct connection and start up of the inverter, the green LED next to the power button should light up. If no LED lights up, check that the power cords are connected correctly. If the inverter is faulty or some other system faults occur (short circuit, overload), the red LED will light and an audible signal will be heard from the inverter.

All IPS series inverters are equipped with multiple of safeguards:

- **Thermal protection** - switches off when the temperature exceeds 60°C - 70°C,
- **Undervoltage protection** - turns the device off when the input voltage is too low (battery discharge),
- **Overvoltage protection** - switches off the device in case the voltage at the input is too high,
- **Overload protection** - switches off the device if it has been overloaded for longer than several seconds.

TECHNICAL DATA

Model	300	500	500 PLUS	500/1000	1000	2000
Instantaneous power [Va]	300	500	500	1000	1000	2000
Continuous power [W]	150	350	350	500	700	1300
Batt. Voltage	12V lub 24V					
Input voltage	12V: 10,5 V - 15,5 V 24V: 21 V - 31 V					
Output voltage	225 - 235 V					
Output voltage freq.	50 Hz (+-2Hz)					
Efficiency	~ 92 %					
Undervoltage protection	12V: 10,7 V (+- 0,3 V) 24V: 21,4 V (+- 0,6 V)					
Working temp.	-10 °C to 40 °C					
Dimensions [mm]	ø80 x 178	178x105x60	160x105x60	180x105x69	235x162x70	255x165x70
Weight [kg]	0,4	0,8	0,6	0,9	1,6	2,2
Included (*)	B	A i B	B	A i B	A	

Model	3000	4000	5000	3000 PLUS	600 DUO	1200 DUO
Instantaneous power [Va]	3000	4000	5000	3000	600	1200
Continuous power [W]	1700	2000	2500	1500	300	600
Batt. Voltage	12V lub 24V				uniwersalne 12V i 24V	
Input voltage	12V: 10,5 V - 15,5 V 24V: 21 V - 31 V				10,5 V - 31 V	
Output voltage	225 - 235 V					
Output voltage freq.	50 Hz (+-2Hz)					
Efficiency	~ 92 %					
Undervoltage protection	12V: 10,7 V (+- 0,3 V) 24V: 21,4 V (+- 0,6 V)					
Working temp.	-10 °C to 40 °C					
Dimensions [mm]	290x165x70	290x173x145	290x173x145	280x170x70	163x105x60	235x162x70
Weight [kg]	2,7	4,5	4,8	2,9	0,7	1,6
Included (*)	A			A i C	B	

(*)

- A - cable for connecting the inverter to the battery (red and black)
- B - wire for connecting the inverter to the cigarette lighter socket in the vehicle
- C - control panel with pulse switch and ON / OFF / FAULT diodes