

## ELECTRONIC INVERTERS 230V DC/AC

# IPS

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The **IPS series of electronic inverters** was designed for powering electronic devices that require 230V alternating voltage from batteries or car systems with 12 or 24V DC supply voltage.

The inverters are a perfect fit for places where it is impossible to connect to an electrical grid. **The IPS series inverters deliver the so-called modified sine wave output.** It is a square waveform, where the RMS value is identical to RMS of the sine wave in the electric grid. Thanks to that, it is possible to significantly reduce the footprint and to improve reliability of the device.

**IPS inverters are only suitable for powering electrical and electronic devices with resistive loads**, such as bulbs, heaters, electronic adapters, A-V equipment, etc.

They must not be used to connect any devices with transformers or induction motors, such as: certain power tools, home appliances, fluorescent tubes with electronic ballasts (EBs), transformer power supply units, pumps, etc.

**Ensure correct polarization of the plugs connected to the battery** (PLUS-PLUS and MINUS-MINUS). Incorrect polarization (PLUS-MINUS) may result in short circuit or damage to the inverter or any connected loads. After correct connection and start-up, a green diode next to the power button on the inverter should light up. If no diode lights up, check the connection of the power supply cables. **If the inverter is out of order** or an external factor causes errors in operation (short circuit, overload), **a red diode will turn on and you will hear a sound alarm** from the inverter.

All IPS series inverters feature numerous protections:

- **Thermal protection** – turns the device off after exceeding the threshold of ca. 60–70°C;
- **Undervoltage protection** – turns the device off when input voltage is too low (battery discharge);
- **Overvoltage protection** – turns the device off when input voltage is too high;
- **Overload protection** – turns the device off when it has been overloaded for more than several seconds.

## TECHNICAL SPECIFICATION

IPS model	300	500	500 PLUS	500/1000	1000	2000
Peak power [VA]	300	500	500	1,000	1,000	2,000
Continuous power [W]	150	350	350	500	700	1,300
Battery voltage	12 V or 24 V					
Input voltage	12 V: 10.5 V–15.5 V   24 V: 21 V–31 V					
Output voltage	225–235 V					
Output voltage frequency	50 Hz (+2 Hz)					
Efficiency	~92%					
Undervoltage protection	12 V: 10.7 V (+0.3 V)   24 V: 21.4 V (+0.6 V)					
Operating temperature	-10°C to 40°C					
Dimensions [mm]	ø80x178	178x105x60	160x105x60	180x105x69	235x162x70	255x165x70
Weight [kg]	0.4	0.8	0.6	0.9	1.6	2.2
Comes with	B	A and B	B	A and B	A	

IPS model	3000	4000	5000	3000 PLUS	600 DUO	1200 DUO
Peak power [VA]	3,000	4,000	5,000	3,000	600	1,200
Continuous power [W]	1,700	2,000	2,500	1,700	300	600
Battery voltage	12 V or 24 V				Universal 12 V and 24 V	
Input voltage	12 V: 10.5 V–15.5 V   24 V: 21 V–31 V				10.5 V–31 V	
Output voltage	225–235 V					
Output voltage frequency	50 Hz (+2 Hz)					
Efficiency	~92%					
Undervoltage protection	12 V: 10.7 V (+0.3 V)   24 V: 21.4 V (+0.6 V)					
Operating temperature	-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
Comes with (*)	A			A and C	B	

(\*)

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