

PRODUCT DATA SHEET AND OCCUPATIONAL SAFETY INSTRUCTIONS

ELECTRONIC VOLTAGE INVERTERS – IPS SERIES

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Part I: COLLECTIVE PRODUCT DATA SHEET

The IPS series voltage inverters are designed to power electrical equipment requiring 230V AC voltage from automotive batteries and installations with 12V or 24V DC voltage. They generate a modified sine wave (a square wave with an effective RMS value equal to the RMS value of a true sine wave) at the output.

Model	Input Voltage	Continuous Power	Peak (Max) Power
IPS 300 12V	12 VDC	150 W	300 W
IPS 500 (12V / 24V)	12 VDC or 24 VDC	250 W	500 W
IPS 500 PLUS 24V	24 VDC	350 W	500 W
IPS 600 DUO 12/24V	12 VDC / 24 VDC auto	300 W	600 W
IPS 700 24V	24 VDC	350 W	700 W
IPS 1000 (12V / 24V)	12 VDC or 24 VDC	500 W	1000 W
IPS 1200 (12V / 24V)	12 VDC or 24 VDC	600 W	1200 W
IPS 2000 (12V / 24V)	12 VDC lub 24 VDC	1000 W	2000 W
IPS 2600 24V	24 VDC	1300 W	2600 W
IPS 3000 (12V / 24V)	12 VDC or 24 VDC	1500 W	3000 W
IPS 3400 (12V / 24V)	12 VDC or 24 VDC	1700 W	3400 W
IPS 4000 (12V / 24V)	12 VDC or 24 VDC	2000 W	4000 W
IPS 5000 (12V / 24V)	12 VDC or 24 VDC	2500 W	5000 W

Part I-B: COMMON TECHNICAL SPECIFICATIONS

- Output Voltage: 230 VAC (+/- 10%)
- Output Waveform: Modified sine wave (Square wave)
- Frequency: 50 Hz (+/- 2 Hz)
- Max Efficiency: > 92%
- Cooling: Active (load/temperature-controlled fan)
- Output Sockets: Polish/Euro standard and built-in USB 5V port (on selected models)

Part II: OCCUPATIONAL SAFETY AND HEALTH INSTRUCTIONS

CRITICAL SAFETY WARNING – APPLICATION LIMITATIONS:

It is strictly forbidden to connect inductive or capacitive loads to the IPS series inverters (modified sine wave). These include: compressor refrigerators, central heating (CH) pumps, air conditioners, electric motors, power tools without a soft-start system, and transformers. Connecting such equipment poses a high risk of permanent damage to the appliances and/or burning out the inverter, causing fire hazards. For these devices, the IPS-SINUS series (pure sine wave) is mandatory.

Pre-operation and Operation Rules:

- **Check Compatibility:** Ensure that the battery's nominal voltage matches the input voltage of the selected IPS model (e.g., 12V battery for the IPS 5000 12V). Connection to 24V will instantly destroy a 12V unit.
- **Power Verification:** The total power consumption of connected appliances must not exceed the inverter's continuous (constant) working power rating listed in the table.
- **Connection Sequence:** Always connect the inverter to the battery first (red plus, black minus), then switch on the Power button, and only after that plug in the 230V appliance.
- **Environmental Conditions:** The device must operate exclusively in dry, ventilated environments or vehicle cabins. Do not expose it to rain, moisture, or direct sunlight.
- **Emergency Action:** In case of overload or overheating, the inverter will sound an alarm and light up a red LED (Fault). Unplug all loads and switch off the unit immediately.