



• **POWER PV400 Photovoltaic Inverter**

- Maximum efficiency  $\geq 98.6\%$ .
- Permanent power 400 kVA at 50°C.
- Robustness and reliability.
- High MTBF.
- Latest MPPT technology.
- Latest generation IGBT modules ( $T_j = 175^\circ\text{C}$ ).
- Protection devices in both AC and DC.
- Adjustable power factor (0.95 inductive - 0.95 capacitive)
- Voltage gap compensation.

### General description

SUPSONIK POWER PV400 photovoltaic inverters designed for direct connection to medium voltage transformer is an efficient and robust solution in medium and large photovoltaic installations.

Thanks to the latest modulation technology, the new generation of IGBT transistors and the excellent control algorithm used, PV400 inverters generate - with a maximum performance - a perfect sine wave from direct current of solar panels. Maximum performance  $\geq 98.6\%$  and European performance  $\geq 98.4\%$ .

It is an equipment with excellent features like full power at 50 °C, safe protection devices, high MTBF, minimal presence of harmonic distortion even at low power, etc.

POWER PV400 devices are easy to use and have intuitive software tools that allow to configure all inverter parameters as well as monitor and display them through a backlit graphic display, RS-485 communication under MODBUS RTU protocol.

Optional data logger with remote control for sending information via high speed LAN connection (TCP / IP).

The design of our machines and the process of product manufacture and quality testing guarantee our customers' maximum generation, high efficiency in the conversion of energy and compliance with the directives and standards applicable in the European Union.

SUPSONIK offers the possibility of adapting each equipment to the specific needs of the customer.

*Supsonik S.L. has a wide range of photovoltaic equipment, from **33 kVA** to **1 MVA** maximum power.  
 For further information please contact the manufacturer.*

### PHOTOVOLTAIC DC INPUT

Rated power	408 kW
Peak power	450 kWp
MPPT Voltage range	450 V – 820 V*
Maximum input voltage	1000 V
Maximum DC voltage	993 A
Number of DC inputs	8 + 8

### AC OUTPUT

Rated power at 50°C	400 kVA
Rated power at 30°C	440 kVA
Rated voltage AC ± 10%	3 x 270 V
Frequency	50/60 Hz
Rated current	855 A
Power factor	0.95 inductive - 0.95 capacitive
Maximum harmonic distortion	< 3%

### ENERGY CONSUMPTION

Internal consumption in operation	≤ 1200 W
Stand-by consumption	≤ 110 W
Auxiliary external power supply	3 x 400 V, 3 x 230 V

### PERFORMANCE

Maximum performance	> 98.6%
European performance	≥ 98.4%

### ENVIRONMENTAL CHARACTERISTICS

Protection degree	IP20 (optional IP23)
Working temperature	-15°C to 50°C
Storage temperature	-25°C to 65°C
Relative humidity	15% to 95% with no condensation
Altitude	1000 m.

### DIMENSIONS AND WEIGHT

Dimensions (Width x Depth x Height)	3200 x 800 x 2200 (mm)
Weight	2000 Kg

### PROTECTIONS

Protections	<ul style="list-style-type: none"> <li>• In case of grid overvoltage / undervoltage according to RD 1663/2000.</li> <li>• Grid overfrequency / underfrequency detection according to RD 1663/2000.</li> <li>• Manual network disconnection.</li> <li>• Against reverse polarization.</li> <li>• Insulation fault and DC voltage ground leakage.</li> <li>• Against overloads.</li> <li>• Against output short circuit</li> <li>• Against asymmetric and magnetizing currents.</li> <li>• Motorized isolator switch for DC side protection.</li> <li>• Magnetothermal switch for AC side protection.</li> <li>• Fuse in positive and negative for each input.</li> <li>• Contactor for mains isolation.</li> <li>• Preload contactor.</li> </ul>
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### USER INTERFACE

- OP monitoring with display.
- MODBUS, PROFIBUS, TCP / IP communications protocol via RS485 and Ethernet.
- PC communications software for monitoring (graphics, alarms, modification parameters ...) RS-232.

### CERTIFICATES AND STANDARDS

EC Marking	EMC directive 61000-6-2, 61000-6-3 Low voltage directive FN 50178
Compliance with Royal Decree	RD 1663/2000
Declaration of conformity ENEL-DK5940	

\* Minimum Vdc with rated Vac ± 5% and Cos (φ) = 1

