



• POWER PV100 Photovoltaic Inverter

- Maximum efficiency  $\geq 97.8\%$ .
- Permanent output power 100 kVA.
- Robustness and reliability.
- Latest MPPT technology.
- Latest generation IGBTs modules ( $T_j = 175^\circ\text{C}$ ).
- Protection devices for AC and DC.
- Adjustable power factor (0.95 inductive - 0.95 capacitive).
- Voltage dips compensation.

### General description

POWER PV100 photovoltaic inverters for grid connection, can be supplied with or without transformer, for indoor or outdoor running. They are a robust and efficient solution in any type of photovoltaic installation.

Thanks to the modulation latest technology, the IGBT transistors new generation and the excellent control algorithm used, these PV100 photovoltaic inverters generate, with maximum performance, a perfect sine-wave from the photovoltaic panels direct current.

It is a unit with excellent features, such as, full power at  $50^\circ\text{C}$ , secure protection devices, high MTBF, minimum harmonic distortion even at low power, among others.

POWER PV100 photovoltaic inverters are easy to operate with intuitive software tools that allow the configuration of all parameters as well as the monitoring and display through a retro-illuminated Graphic display, with RS-485 communication and MODBUS RTU protocol.

Optional Data logger with remote control to send information through a high speed LAN connection (TCP / IP).

Our photovoltaic inverters design, the manufacturing process and quality tests, ensure our clients a maximum power generation, high efficiency energy conversion and compliance with applicable directives and standards in the European Union.

SUPSONIK offers the possibility to customize each machine according to the specific needs of our clients.

*Supsonik S.L. manufactures a wide range of photovoltaic inverters, from 33 kVA to 850 kVA maximum power.  
For further information, please contact with the manufacturer.*

**DC INPUT**

Nominal power	105 kW
Peak power	115 kWp
MPPT voltage range	450 V – 820 V*
Maximum input voltage	1000 V
Maximum direct current	235 A
Number of DC inputs	2

**AC OUTPUT**

Nominal power	100 kVA
Nominal voltage ± 10%	3 x 400 V ± 10% (3 x 270 V without transformer)
Frequency	50/60 Hz ± 1%
Nominal current	145 A (214 A without transformer)
Power factor	0.95 inductive - 0.95 capacitive
Maximum harmonic distortion	< 3%

**POWER CONSUMPTION**

Working internal consumption	≤ 1200 W
Stand-by consumption	≤ 50 W
External auxiliary power supply	3 x 400 V, 3 x 230 V

**PERFORMANCE**

Maximum performance	≥ 97.8% (98.5% without transformer)
European performance	≥ 97.1% (98.3% without transformer)

**ENVIRONMENTAL SPECIFICATIONS**

Protection level	IP20 (optional IP54)
Working temperature	-15°C to 50°C
Storage temperature	-25°C to 65°C
Relative humidity	15% to 95% without condensation
Altitude	1000 meters above sea level

**DIMENSIONS AND WEIGHT**

Dimensions (Width x Depth x Height)	1000 x 800 x 1800 (mm)
Weight	960 Kg (sin transformador 550 kg)

**PROTECTIONS**

Protections	<ul style="list-style-type: none"> <li>• Against grid overvoltage/undervoltage according to RD 1663/2000.</li> <li>• Grid overfrequency/underfrequency detection according to RD 1663/2000.</li> <li>• Manual grid disconnection.</li> <li>• Against inverse polarization.</li> <li>• Against insulation failure and DC voltage to Earth leakages.</li> <li>• Against overload.</li> <li>• Against output short circuit.</li> <li>• Against asymmetric and magnetizing currents.</li> <li>• Motorized circuit breaker for DC side protection.</li> <li>• Thermal-magnetic circuit breaker for AC side protection.</li> <li>• Fuse in positive and negative for each string.</li> <li>• Contactor for grid insulation.</li> <li>• Preload contactor.</li> <li>• Emergency stop.</li> </ul>
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**USER INTERFACE**

<ul style="list-style-type: none"> <li>• OP monitoring with display.</li> <li>• MODBUS, PROFIBUS, TCP/IP through RS485 and Ethernet communication protocols.</li> <li>• PC communications software for monitoring (graphics, alarms, parameters modifications...) RS-232.</li> </ul>
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**CERTIFICATIONS AND STANDARDS**

CE marking	EMC 61000-6-2, 61000-6-3 directive EN 50178 low voltage directive
According to Royal Decrees	RD 1663/2000
ENEL-DK5940 declaration of conformity	

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

