Power

Ingecon®Sun Power

TRANSFORMER

50 / 60 / 70 / 80 / 90 / 100

Optimum performance at large multi-megawatt installations

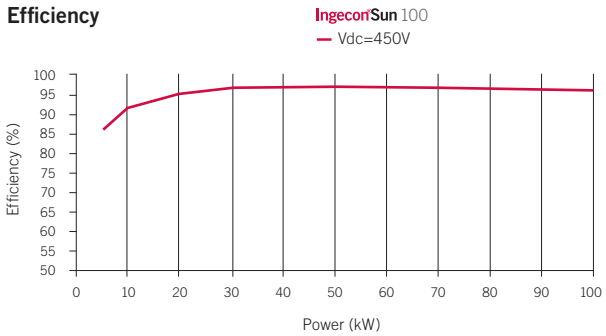
Designed for ease of maintenance, offering high efficiency at high temperatures, and featuring full electric protections as a standard supply, this inverter family is one of the most popular in the **Ingecon®Sun** inverter range. These **Ingecon®Sun Power** with transformer inverters are designed for medium and large power roof installations and also for ground-based multi-megawatt installations.

This inverter family is equipped with an advanced maximum power point tracking system (MPPT) to extract the maximum power from the PV array. No additional items are required and they can be manually disconnected from the grid.

Each inverter incorporates an internal data logger for up to 3 months data storage, which can be accessed from either a remote PC or in situ from the inverter front panel, through a keypad. This front panel also features LED status and alarm indicators and an LCD screen.

The **Ingecon®Sun Power** with transformer inverters have been designed with components which offer a useful life of more than 20 years. They come with a standard guarantee of 5 years, which can be extended for periods to up to 25 years.

Efficiency



Protections

The **Ingecon®Sun Power** with transformer inverters are equipped with the following electrical protections against:

- Galvanic isolation between the DC and AC side.
- Reverse polarity.
- Output short-circuits and overloads.
- Insulation failures.
- Anti-islanding with automatic disconnection.
- DC breaker.
- DC fuses.
- AC MT breaker.
- DC surge arresters.
- AC surge arresters.

Optional accessories

- Inter-inverter communication via RS-485 or Ethernet.
- Modem for GSM/GPRS remote communication.
- **Ingecon®Sun Manager** software for parameter display and data recording.
- **IngeRAS™ PV** for Internet data display.
- PV array string current monitoring. **Ingecon®Sun String Control.**
- Grounding kit for those PV modules requiring this.

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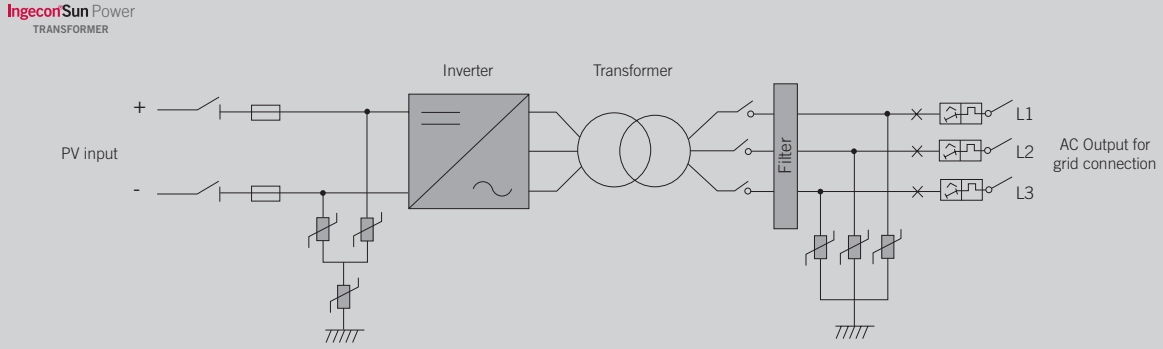
Technical data

Model	Ingecon Sun 50	Ingecon Sun 60	Ingecon Sun 70	Ingecon Sun 80	Ingecon Sun 90	Ingecon Sun 100
Input (DC)						
Recommended PV array power range[1]	52 - 65 kWp	63 - 78 kWp	73 - 91 kWp	83 - 104 kWp	93 - 117 kWp	104 - 130 kWp
Voltage range MPP	405 - 750 V	405 - 750 V	405 - 750 V	405 - 750 V	405 - 750 V	405 - 750 V
Maximum voltage DC[2]	900 V	900 V	900 V	900 V	900 V	900 V
Maximum current DC	130 A	156 A	182 A	208 A	234 A	260 A
DC inputs	4	4	4	4	4	4
MPPT	1	1	1	1	1	1
Output (AC)						
Rated power AC HT[3]	50 kW	60 kW	70 kW	80 kW	90 kW	100 kW
Rated power AC HP[4]	55 kW	66 kW	77 kW	88 kW	99 kW	110 kW
Maximum current AC	93 A	118 A	131 A	156 A	161 A	161 A
Rated voltage AC	400 V	400 V	400 V	400 V	400 V	400 V
Frequency AC	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Phi Cosine[5]	1	1	1	1	1	1
Phi Cosine adjustable	+/-0.9 to Pnom	+/-0.9 to Pnom	+/-0.9 to Pnom	+/-0.9 to Pnom	+/-0.9 to Pnom	+/-0.9 to Pnom
THD[6]	<3%	<3%	<3%	<3%	<3%	<3%
Efficiency						
Maximum efficiency	96.3%	96.40%	97.20%	97.50%	96.90%	96.80%
Euroefficiency	94.30%	94.70%	96.10%	96.20%	95.80%	95.70%
General Information						
Stand-by consumption[7]	30 W	30 W	30 W	30 W	30 W	30 W
Consumption at night	1 W	1 W	1 W	1 W	1 W	1 W
Ambient temperature	-20ºC to +65ºC	-20ºC to +65ºC	-20ºC to +65ºC	-20ºC to +65ºC	-20ºC to +65ºC	-20ºC to +65ºC
Relative humidity	0 - 95%	0 - 95%	0 - 95%	0 - 95%	0 - 95%	0 - 95%
Protection class	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Compliance with standards	VDE0126-1-1, RD 661/2007, EN 50178, Reglamento VDEW BT, RTC alle rete BT di Enel Distribuzione CEI 11-20, CEI 11-20 V1, CEI 0-16, CE Mark					

HT mode (high temperature)
Rated outputs at 45ºC

HP mode (high power)
Rated outputs at 40ºC

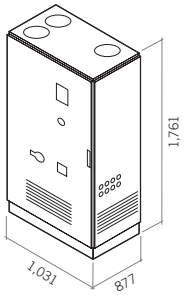
Notes: [1] Depending on the type of installation and geographical location. [2] Must not be exceeded under any circumstances. Consider the voltage increase of the 'Voc' at low temperatures. [3] Up to 45ºC ambient temperature, Pmax= 110% Pnom for non permanent transients [4] Up to 40ºC ambient temperature, Pmax = Pnom [5] For Pout > 25% of the rated power. Possibility to modify the Phi Cosine. [6] For Pout > 25% of the rated power and voltage in accordance with IEC 61000-3-4 [7] Consumption from PV field.



Size and weight

(mm)

Ingecon Sun 50/60	900 kg.
Ingecon Sun 70/80	1,026 kg.
Ingecon Sun 90/100	1,162 kg.



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Avda. Ciudad de la Innovación, 13 - 31621 SARRIGUREN, SPAIN - Tel.: +34 948 28 80 00 - solar.energy@ingeteam.com - www.ingeteam.com