

Ingecon[®]Sun Lite

2.5TL / 3TL / 3.3TL / 3.68TL / 3.8TL / 4.6TL / 5TL / 6TL

The **Ingecon[®]Sun Lite TL** transformer-free inverters are designed to adapt to the standards and regulations in force in the different international markets. The inverters are apt for different types of installations, ranging from residential applications up to large-scale solar plants.

The inverters feature a molded aluminium casing, for indoor and outdoor installation and capable of withstanding extreme temperatures, and an advanced maximum power point tracker system (MPPT) to extract the maximum power from the PV array.

To facilitate installation, the inverters are equipped with fast-on connectors for the DC, AC sides and communications. 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 Lite TL** 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.



Protections

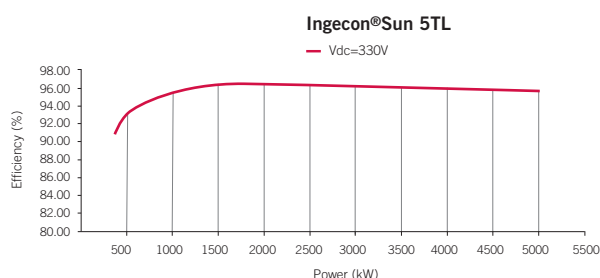
The **Ingecon[®]Sun Lite TL** inverters are equipped with the following electrical protections against:

- Reverse polarity.
- Input and output overvoltage.
- Output short-circuits and overloads.
- Insulation failures.
- Anti-islanding with automatic disconnection.
- Optional DC breaker.

Optional accessories

- Inter-inverter communication via RS-485, fibre optics, wireless or Ethernet.
- Modem for GSM/GPRS remote communication.
- **Ingecon[®]Sun Manager** software for parameter display and data recording.
- **IngeRAS[™] PV** for Internet data display.
- Analogue input card for the measurement of meteorological variables.
- Potential free relay for alarm signalling.

Efficiency



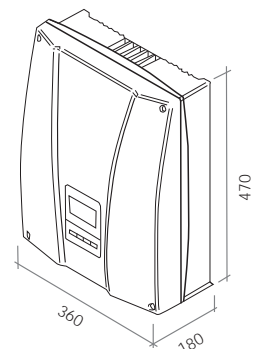
Size and weight

(mm)

Ingecon[®]Sun 2.5TL / 3TL: 18.3 kg.

Ingecon[®]Sun 3.3TL / 3.68TL: 19.7 kg.

Ingecon[®]Sun 3.8TL / 4.6TL / 5TL / 6TL: 23.3 kg.



Technical data

Model	Ingecon®Sun 2.5TL	Ingecon®Sun 3TL	Ingecon®Sun 3.3TL	Ingecon®Sun 3.68TL	Ingecon®Sun 3.8TL	Ingecon®Sun 4.6TL	Ingecon®Sun 5TL	Ingecon®Sun 6TL
Input (DC)								
Recommended PV array power range ⁽¹⁾	2.8 - 3.3 kWp	3.2 - 4 kWp	3.8 - 4.3 kWp	3.9 - 4.8 kWp	4.1 - 5 kWp	5.2 - 6 kWp	5.7 - 6.5 kWp	6.3 - 7 kWp
Voltage range MPP	150 - 450 V	150 - 450 V	150 - 450 V	150 - 450 V	150 - 450 V	150 - 450 V	150 - 450 V	150 - 450 V
Maximum voltage DC ⁽²⁾	550 V	550 V	550 V	550 V	550 V	550 V	550 V	550 V
Maximum current DC	16 A	16 A	22 A	22 A	33 A	33 A	33 A	33 A
DC inputs	3	3	4	4	4	4	4	4
MPPT	1	1	1	1	1	1	1	1
Output (AC)								
Rated power AC HT ⁽³⁾	2.5 kW	2.8 kW	3.3 kW	3.68 kW	3.6 kW	4.6 kW	5 kW	5.4 kW
Rated power AC HP ⁽⁴⁾	2.7 kW	3 kW	3.7 kW	3.68 kW	3.9 kW	5 kW	5.5 kW	6 kW
Maximum current AC	13 A	13.5 A	17 A	17 A	18.8 A	24.2 A	25.5 A	26.2 A
Rated voltage AC	230 V	230 V	230 V	230 V	230 V	230 V	230 V	230 V
Frequency AC	50 / 60 Hz	50 / 60 Hz	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	1	1
THD ⁽⁵⁾	< 3%	< 3%	< 3%	< 3%	< 3%	< 3%	< 3%	< 3%
Efficiency								
Maximum efficiency	96.6%	96.6%	96.8%	96.8%	97%	97%	97%	97%
Euroefficiency	95%	95.1%	95.2%	95.2%	95.6%	96%	96.1%	96.1%
General Information								
Stand-by consumption	<10 W	<10 W	<10 W	<10 W	<10 W	<10 W	<10 W	<10 W
Consumption at night	<0.5 W	<0.5 W	<0.5 W	<0.5 W	<0.5 W	<0.5 W	<0.5 W	<0.5 W
Ambient temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Relative humidity	0 - 95%	0 - 95%	0 - 95%	0 - 95%	0 - 95%	0 - 95%	0 - 95%	0 - 95%
Protection class	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65
Compliance with standards	VDE0126-1-1, EN 50178, G83/1, CEI 0-16							
	RD 661/2007							
	RTC alle rete BT di Enel Distribuzione							
	CEI 11-20							
	CEI 11-20 V1							
CE Mark								

HT Mode (high temperature) - Rated outputs at 45°C

HP mode (high power) - Rated outputs at 40°C

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 45°C ambient temperature, Pmax= 110% Pnom for non permanent transients ⁽⁴⁾ Up to 40°C ambient temperature, Pmax = Pnom ⁽⁵⁾ For Pout > 25% of the rated power

