

Ingecon[®]SunPower Max

220 AC

250TL / 375TL / 500TL



Optimum performance at large multi-megawatt installations

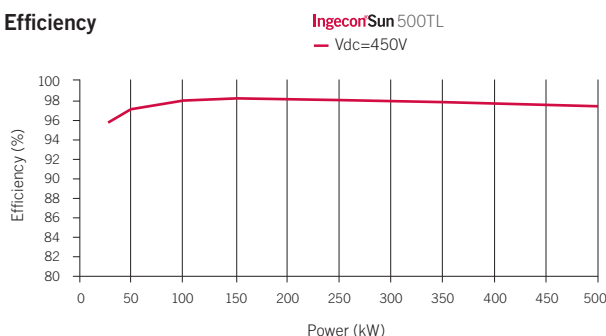
The modular design and absence of a low voltage transformer considerably enhance the inverter efficiency through the different DC stages, and the independent maximum power point trackers (MPPT*). The **Ingecon[®]Sun Power Max** range also incorporates those DC/AC protection devices required by even the most exacting standards and regulations. This inverter family has been specifically designed for medium voltage applications, offering increased availability thanks to the independent operation of the power stages and also ease of maintenance, which are both fundamental factors in large-scale PV installations.

Ingeteam offers a customised, holistic solution for each particular market. A solution which, in addition to the inverter, also includes a medium voltage transformer centre comprising a prefabricated concrete housing, a medium voltage transformer, medium voltage protection cells, auxiliary services panel and heat dissipation system.

The **Ingecon[®]Sun Power Max** 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 up to 25 years.

* The MPPTs connected through TL inverters to the same transformer must have the same voltage configuration.

Efficiency



Protections

Each of the modular independent stages is equipped with:

- Reverse polarity.
- Output short-circuits and overloads.
- DC breaker with a door control optional.
- DC fuses.
- AC thermal-magnetic breaker with door control.
- Lightning induced DC surge suppressor.
- Lightning induced AC surge suppressor.
- Anti-islanding monitoring system with automatic disconnection.
- DC isolation monitor.

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**.

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Technical data

Model	IngeconSun 250TL	IngeconSun 375TL	IngeconSun 500TL
Input (DC)			
Recommended PV array power range ⁽¹⁾	283 - 325 kWp	424 - 488 kWp	566 - 650 kWp
Voltage range MPP	405 - 750 V	405 - 750 V	405 - 750 V
Maximum voltage DC ⁽²⁾	900 V	900 V	900 V
Maximum current DC	715 A	1,072 A	1,429 A
DC inputs	8	12	16
MPPT	2	3	4
Output (AC)			
Rated power AC HT ⁽³⁾	250 kW	375 kW	500 kW
Rated power AC HP ⁽⁴⁾	275 kW	412 kW	550 kW
Maximum current AC	736 A	1,104 A	1,472 A
Rated voltage AC	220 V IT System	220 V IT System	220 V IT System
Frequency AC	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Phi Cosine ⁽⁵⁾	1	1	1
Phi Cosine adjustable	±0.9 to Pnom	±0.9 to Pnom	±0.9 to Pnom
THD ⁽⁶⁾	<3%	<3%	<3%
Efficiency			
Maximum efficiency	98.10%	98.10%	98.10%
Euroefficiency	97.70%	97.70%	97.70%
General Information			
Stand-by consumption ⁽⁷⁾	60 W	90 W	120 W
Consumption at night	<5 W	<5 W	<5 W
Ambient temperature	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C
Relative humidity	0 - 95%	0 - 95%	0 - 95%
Protection class	IP 20	IP 20	IP 20
Compliance with standards	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		

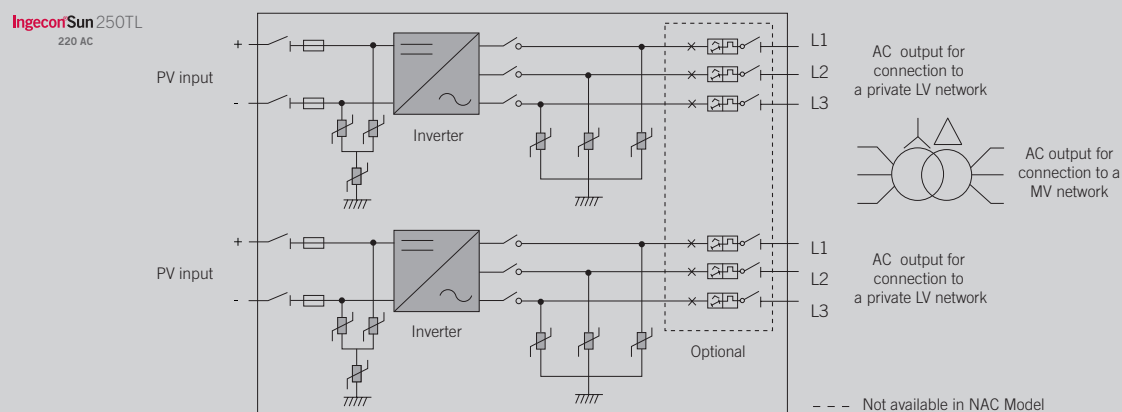
HT mode (high temperature)

Rated outputs at 45°C

HP mode (high power)

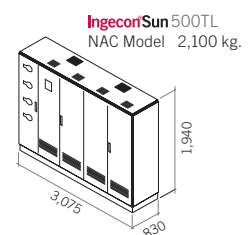
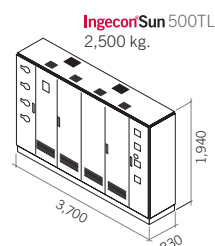
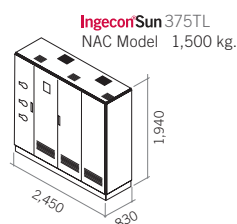
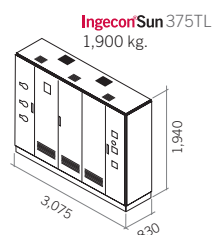
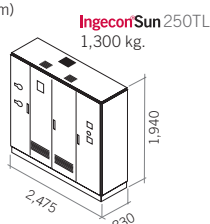
Rated outputs at 40°C

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. 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)



Ingeteam