

Ingecon[®]SunPower Max

275 AC

315HE TL / 500HE TL / 625HE TL



Optimum performance at large multi-megawatt installations

The modular composition and lack of low voltage transformer help to considerably increase the efficiency through the various DC stages, in addition to the independent maximum power point trackers (MPPT*). Likewise, the **Ingecon[®]Sun Power Max** is equipped with all the DC/AC protection mechanisms required by the most demanding standards and regulations. This inverter family is specifically designed for medium voltage applications and provides increased availability thanks to the independent operation of the power stages, in addition to ease of maintenance, all fundamental aspects in large PV arrays.

Ingeteam offers a holistic, customised, market-specific solution which, in addition to the inverter, also includes a medium voltage transformer centre consisting in a prefabricated concrete enclosure, a medium voltage transformer, medium voltage protection cells, auxiliary services panel and heat dissipation system.

The **Ingecon[®]Sun Power Max** units have been designed with components which offer a useful life of more than 20 years. There is a standard 5 year warranty, which can be extended to up to 25 years.

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

Protections

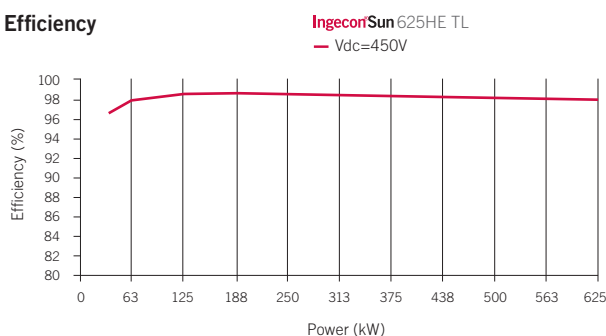
Each of the independent modular stages is equipped with the following protections:

- Reverse polarity.
- Output short-circuits and overloads.
- DC breaker with a door control.
- 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**.

Efficiency



Ingecon[®]SunPower Max

275 AC

Technical data

Model	IngeconSun 315HE TL	IngeconSun 500HE TL	IngeconSun 625HE TL
Input (DC)			
Recommended PV array power range ⁽¹⁾	354 - 410 kWp	532 - 650 kWp	709 - 819 kWp
Voltage range MPP	450 - 750 V	450 - 750 V	450 - 750 V
Maximum voltage DC ⁽²⁾	900 V (1000 V optional)	900 V (1000 V optional)	900 V (1000 V optional)
Maximum current DC	715 A	1,072 A	1,429 A
DC inputs	8	12	16
MPPT	2	3	4
MPPT Master-Slave	1	1	1
Output (AC)			
Rated power AC HT ⁽³⁾	315 kW	500 kW	625 kW
Rated power AC HP ⁽⁴⁾	346 kW	519 kW	690 kW
Maximum current AC	736 A	1,104 A	1,472 A
Rated voltage AC	275 V IT System	275 V IT System	275 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	98.5%	98.5%	98.5%
Euroefficiency	98.2%	98.2%	98.2%
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		

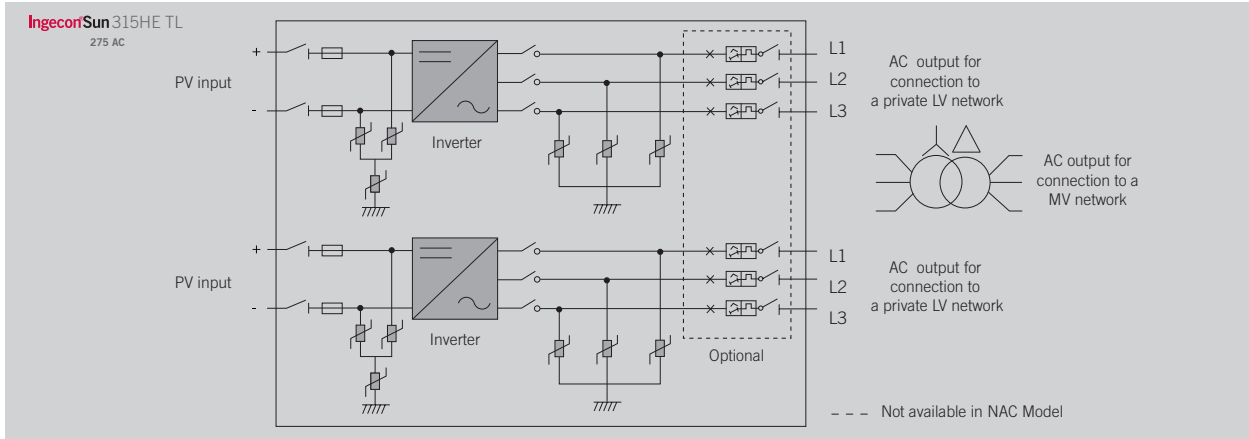
HT mode (high temperature)

Rated outputs at 45°C

HP mode (high power)

Rated outputs at 40°C

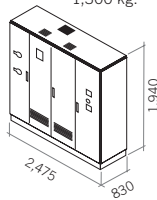
Notes: ⁽¹⁾ Depending on the type of installation and geographical location. ⁽²⁾ Must not be exceeded under any circumstances. Consider the voltage increase of the "Voc" at low temperatures. ⁽³⁾ Up to 45°C ambient temperature. More power available in transient operating condition ⁽⁴⁾ Up to 40°C ambient 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.



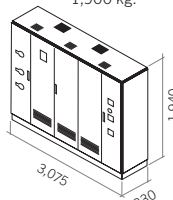
Size and weight

(mm)

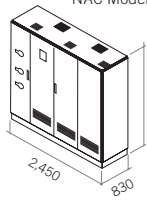
IngeconSun 315HE TL
1,300 kg.



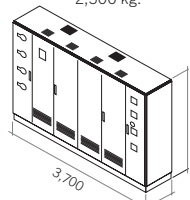
IngeconSun 500HE TL
1,900 kg.



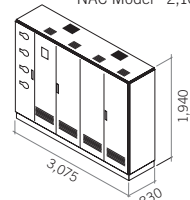
IngeconSun 500HE TL
NAC Model 1,500 kg.



IngeconSun 625HE TL
2,500 kg.



IngeconSun 625HE TL
NAC Model 2,100 kg.



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