

SINGLE-MPPT STRING INVERTER WITH A GREATER POWER DENSITY

INGECON® SUN 300TL

Great output power

Featuring a greater output power, the new INGECON® SUN 300TL is able to drastically reduce the number of inverters required for designing a PV power plant.

Cabling cost reduction

Thanks the innovative design, this inverter allows to use DC harnessing cable solutions. As a consequence, it reduces the global labour and cabling cost.

Higher flexibility and power density

The highest flexibility thanks to its maximum DC voltage (1,500 V) and to its wide voltage range MPP. Awesome power density, with up to 300 kW.

Long-lasting and rugged design

Aluminium casing, especially conceived for indoor and outdoor applications (IP66). The INGECON® SUN 300TL have been designed to guarantee a long life expectancy and to withstand extreme temperatures.

Wi-Fi communication as standard

The inverter features Wi-Fi communication as standard. This Wi-Fi interface is used to commission the inverter through the

INGECON® SUN Monitor App, available for iOS and Android. A wizard guides the user through the entire start-up process.

SPE (Single Pair Ethernet)

The inverter features SPE communication as standard. Using SPE, the communication with the inverters can be established up to 1,000 meters. Moreover, these inverters enables daisy chain connection. Thus, several inverters can be connected to the same SPE line. The versatility and possibilities offered by the SPE are an important improvement at the plant's communication network.

Grid support

The INGECON® SUN 300TL has been designed to comply with the grid connection requirements in different countries, contributing to the quality and stability of the electric system. These inverters therefore feature a low voltage ride-through capability, and can deliver reactive power and control the active power delivered to the grid

Remote monitoring

The inverter can be monitored with the www.ingeconsunmonitor.com website or with the INGECON® SUN Monitor App.



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Optimized design for stacked mounting arrangement

The inverter has been designed to be mounted in the string station as a virtual central power station, reducing the size and facilitating installation and cabling connections.

Integrated components

DC surge arresters, type II	✓
AC surge arresters, type II	✓
AC quick connectors	✓
Wi-Fi communication	✓
SPE (Single Pair Ethernet) communication	✓



MAIN FEATURES

- 1 MPPT.
- DC terminal connection up to 400 mm².
- PID recovery.
- Reactive power capability.
- Reactive power injection at night.
- Low-voltage ride-through capability.
- 99.05% maximum efficiency.
- Single Pair Ethernet and Wi-Fi communications.
- Integrated Webserver.
- Software INGECON® SUN Monitor for PV plant monitoring.
- Suitable for indoor and outdoor installations (IP66).
- High temperature performance.



PROTECTIONS

- Shortcircuits and overloads at the output.
- Anti-islanding with automatic disconnection.
- Insulation faults.
- AC overvoltages with type II surge arresters.
- DC overvoltages with type II surge arresters.

BENEFITS

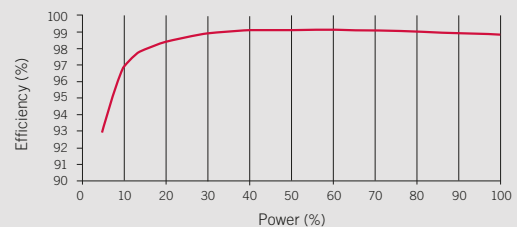
- Greater power density.
- Harnessing cable solutions.
- Greater cost-effectiveness thanks to the cabling cost reduction.
- High availability compared to central inverters.
- High efficiency rates.
- Easy maintenance.

	300TL							
	400 V	600 V	615 V	630 V	645 V	660 V	675 V	690 V
Input (DC)								
MPP voltage range ⁽¹⁾	622 - 1,300 V	933 - 1,300 V	957 - 1,300 V	980 - 1,300 V	1,003 - 1,300 V	1,027 - 1,300 V	1,050 - 1,300 V	1,073 - 1,300 V
Maximum voltage	1,500 V							
Maximum current	278							
Number of inputs (MPPT)	1							
Output (AC)								
Rated power	173 kVA	260 kVA	266 kVA	273 kVA	279 kVA	286 kVA	292 kVA	299 kVA
Maximum current	250 A							
Ambient temperature for rated power	45 °C							
Rated voltage	400 V	600 V	615 V	630 V	645 V	660 V	675 V	690 V
Frequency	50 / 60 Hz							
Type of grid	TN / TT / IT			IT				
Power factor adjustable ⁽²⁾	Yes, 0 - 1 (leading / lagging)							
THD (Total Harmonic Distortion) ⁽³⁾	<3%							
Efficiency								
Maximum efficiency	99.05%							
Euroefficiency	98.60%							
General information								
Cooling system	Forced ventilation							
Air flow	900 m³/h							
Aux. consumption	20 W							
Operation temperature	-30 °C to 60 °C							
Relative humidity (non-condensing)	0 - 100%							
Protection class	IP66 / NEMA 4							
Residual current monitoring unit	Yes							
Maximum operating altitude	4,000 m.a.s.l. (for installations beyond 1,000 m.a.s.l., please contact Ingeteam's solar sales department)							
Connection	AC quick connectors: 95 - 120 mm² DC connection: up to 2 x 400 mm²							
Marking	CE							
EMC and safety standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 62109-1, EN 62109-2, IEC62103, EN 50178, FCC Part 15, IEC60068-2-1:2007, IEC60068-2-2:20007, IEC60068-2-14:2009, IEC60068-2-30:2005, IEC62116, IEC61683 y EN50530							
Grid connection standards	DIN V VDE V 0126-1-1, EN 50439, EN 50549, CEI 0-21, CEI 0-16 VDE-AR-N 4105:2011-08, P.O.12.3, BDEW, IEC 62116, IEC 61727, UNE 206007-1, ABNT NBR 16149, ABNT NBR 16150, Brazilian Grid Code, South African Grid Code, Chilean Grid Code, DEWA 2.0, Jordanian Grid Code, G99, VDE-AR-4110, NTS de REE, Directive EU 2016/631							

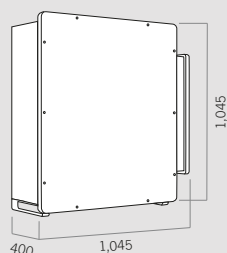
Notes:

- ⁽¹⁾ Vmpp.min is for rated conditions (Vac=1 p.u. and Power Factor=1).
- ⁽²⁾ Extended adjustment range for nominal working points.
- ⁽³⁾ For rated AC power and voltage in accordance with IEC 61000-3-4.

Efficiency INGECON® SUN 300TL



Size and weight (mm)



300TL
105 kg.

