INGECON SUN

1Play
TL M Series

3TL / 6TL M2

SINGLE-PHASE PV INVERTER WITH ONE OR TWO MPPTs

THE BEST SOLUTION FOR RESIDENTIAL SELF-CONSUMPTION SYSTEMS

A single-phase inverter family for residential PV systems.

Maximum efficiency with one or two independent MPPT inputs
A single DC-to-AC power conversion stage with an advanced maximum power point tracking system (MPPT), making it possible to harness the maximum energy from the PV array at all times, including difficult situations such as scattered clouds and partial shading. Great flexibility for configuring the solar array, thanks to the two independent MPP trackers (6-kW inverter model), with a wide input voltage range. Moreover, it enables to connect different DC input powers to each MPP tracker (asymmetric configuration).

Plug & Play technology
The inverter connection is fast, simple and extremely easy to install.
The country specific configuration and language can be easily selected from the inverter App.

Rugged design
Die cast aluminum casing, especially designed for indoor and outdoor applications (IP65). The INGECON® SUN 1Play TL M inverters have been designed to guarantee a long life expectancy and to withstand extreme temperatures.

Ease of maintenance
Internal datalogger for data storage.
Control either from a remote PC or on-site setting. Status and alarm LED indicators.

Software included
Included at no extra cost are the INGECON® SUN Monitor and its smartphone version iSun Monitor for monitoring and recording the inverter data over the internet. In addition, users can download the latest version of the firmware from the Ingeteam website www.ingeteam.com, and update it using a simple remote connection. Ethernet and Wi-Fi communications are supplied as standard.

Standard 5 year warranty, extendable for up to 10 years.

Specifications included in this datasheet could change without notice. Please contact Ingeteam's sales department in case of any queries.

Ingeteam

3TL / 6TL M2

The best solution for residential self-consumption systems

All the models feature DC and AC surge arresters type III and an integrated DC switch.

Main features

- EMS inside.
- Single or double MPPT system.
- Ethernet and Wi-Fi communications supplied as standard.
- Remote configuration and upgrade.
- Software INGECON® SUN Monitor for PV plant monitoring.
- LED Status.
- Easy maintenance.
- Plug & Play technology.
- Suitable for indoor and outdoor installations (IP65).
- High temperature performance.
- Compact design.
- Language, rated voltage and Country Code, rated voltage configurable by App.
- Compatible with High Power Modules.

Protections

- Reverse polarity.
- Shortcircuits and overloads at the output.
- Anti-islanding with automatic disconnection.
- Insulation faults.
- Output overvoltages with type III surge arresters.

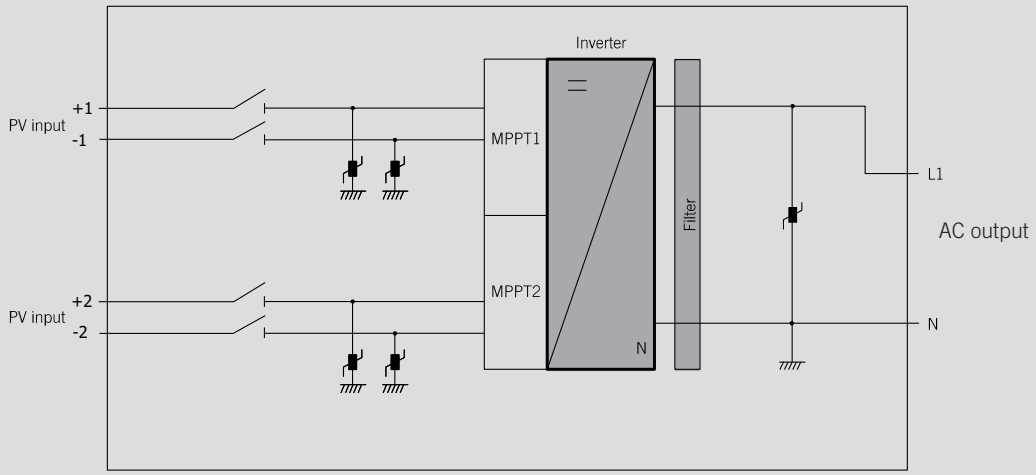
Optional accessories

- Self-consumption kit.

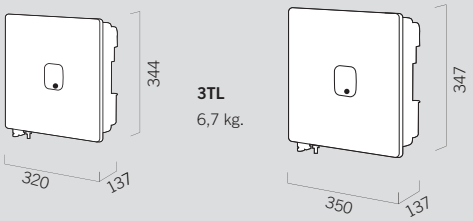
Benefits

- Greater performance thanks to the MPPT system.
- Easy maintenance.
- Higher inverter life expectancy.
- Waterproof and dustproof with IP65 protection class.
- Anti-corrosion with C5 protection class.

INGECON SUN 6TL M2 (6 kW)



Size and weight (mm)



3TL
6,7 kg.

6TL M2
8,7 kg.

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	3TL	6TL M2
INPUT (DC)		
Recommended PV array power range	3.09 - 4.5 kWp	6.18 - 9 kWp
Voltage range MPPT	50 - 490 V	70 - 540 V
Start input voltage	70 V	90 V
Maximum voltage	500 V	550 V
Rated input voltage	360 V	
Max. Short circuit current	20 A	40A (2*20A)
Maximum current	15 A	30A (2*15A)
Inputs with PV connectors	1	2 (1/1)
Number of MPPTs	1	2
OUTPUT (AC)		
Rated power	3 kW	6 kW
Max. apparent power	3.3 kVA	6 kVA
Max. active power (PF = 1) [1]	3.3 kW	6 kW
Max. output current [1]	15 A	27.3 A
Rated voltage	220/230 V	
Voltage range [2]	160 - 300 V (Adjustable)	
Frequency	50 / 60 Hz	
Type of grid	TT / TN	
Power Factor	> 0.99 Rated power (Adjustable 0.8 LD - 0.8 LG)	
THD	< 3% @ Rated power	
EFFICIENCY		
Maximum efficiency	97%	97%
Euroefficiency	96%	96.10%
GENERAL INFORMATION		
Refrigeration system	Natural ventilation	
Consumption at night	10 W	
Ambient temperature	-25°C to 60°C	
Relative humidity (non-condensing)	0 - 100 %	
Protection class	IP65	
Marking	CE	
Acoustic emissions	30 dB	
Max. Operating altitude	4,000 m	
EMC and security 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	
Grid connection standards	IEC 61727:2004, IEC 62116:2014, EN 50549-1:2019, UNE 217002:2020, UNE 217001:2020, NTS SEPE 2.1 type A, CEI 0-21 v1 November 2022 (including Allegato B), VDE-AR-N 4105:2018	

Notes
[1] In Spain, according to the Spanish standards, the maximum active power will be the same as the rated power.
[2] The range of output voltage and frequency may vary depending upon different grid codes.

	Integrated elements
DC switch	✓
Anti-islanding protection	✓
AC overcurrent protection	✓
AC short-circuit protection	✓
DC reverse connection	✓
DC & AC surge arresters, type III	✓
Insulation detection	✓
Leakage current protection	✓

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