



30TL M3 / 50TL M4

THREE-PHASE PV INVERTER WITH THREE OR FOUR MPPTs

THE BEST SOLUTION FOR COMMERCIAL / INDUSTRIAL SELF-CONSUMPTION SYSTEMS

A three-phase inverter family for commercial and industrial self-consumption PV systems.

Maximum efficiency with several 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 several independent MPP trackers with a wide input voltage range. Moreover, it enables to connect different DC input powers to each MPP tracker (asymmetric configuration).

Plug & Play technology

Extremely easy to install. The inverter connection is fast and simple. The countryspecific configuration and language can be easily selected from the inverter App.

Rugged design

Die cast aluminum casing, especially designed for indoor and outdoor applications (IP66). The INGECON® SUN 3Play 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.

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The best solution for commercial / industrial self-consumption systems

All the models feature DC and AC surge arresters type II, input current measuring kit and an integrated DC switch.

Main features

- EMS inside.
- Multi-MPPT system.
- 98.2% maximum efficiency.
- Digital inputs.
- Ethernet, Wi-Fi and RS-485 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 (IP66).
- High temperature performance.
- Compact design.
- Language and country network code configuration via the application.
- Compatible with High Power Modules (>600W).
- Nominal voltage configuration via after-sales service.
- The IS 3Play 30TL M3–50TL M4 inverters automatically detect the parallel connection of their MPPT inputs. However, to maintain the warranty, the safety standards of the installation must be followed. See document ACL2010IMC10, Ingecon Sun 1Play 3Play, parallel string connection.

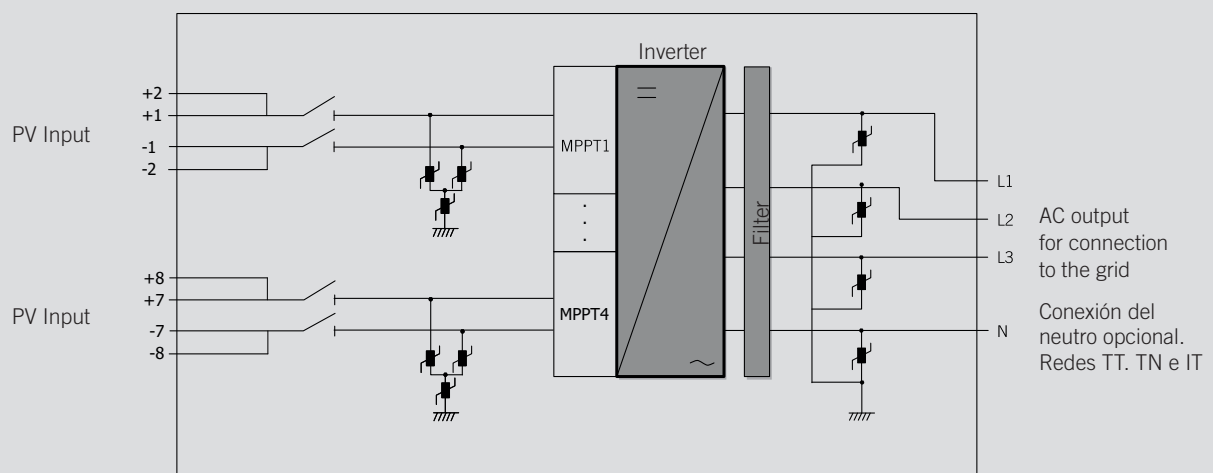
Protections

- Reverse polarity.
- Shortcircuits and overloads at the output.
- Anti-islanding with automatic disconnection.
- Insulation faults.
- Input and output overvoltages with type II surge arresters.
- Electrical Arc Fault Circuit Interrupter (AFCI) with automatic disconnection device.

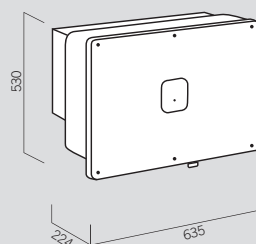
Benefits

- Greater performance thanks to the multi MPPT system.
- Easy maintenance.
- Higher inverter life expectancy.
- Die cast aluminium casing.
- Waterproof and dustproof with IP66 protection class.
- Anti-corrosion with C5 protection class.

INGECON SUN 50TL M4



Size (mm) and weight



30TL M3 / 50TL M4
32 kg / 43 kg

INPUT (DC)

	30TL M3	50TL M4
Recommended PV array power range	30.9 - 45 kWp	51.5 - 75 kWp
Voltage range MPPT	180 - 1,000 V	
Start input voltage	250 V	
Maximum voltage ⁽¹⁾	1,000 V	
Rated input voltage	620 V	
Number of MPPTs	3	4
Max. Short circuit current per MPPT	50 A + 45 A + 45 A	50 A + 45 A + 45 A + 45 A
Maximum current per MPPT	40 A + 32 A + 32 A	40 A + 32 A + 32 A + 32 A
Inputs with PV connectors	6 (2 / 2 / 2)	8 (2 / 2 / 2 / 2)
Maximum current per input ⁽²⁾	30 A / 30 A / 30 A	30 A / 30 A / 30 A / 30 A

OUTPUT (AC)

Rated power	30 kW	50 kW
Max. apparent power ⁽³⁾	33 kVA	55 kVA
Max. active power (PF = 1) ⁽³⁾	33 kW	55 kW
Max. output current	51 A	84.3 A
Rated voltage	400 V	
Voltage range ⁽⁴⁾	322 - 520 V (Adjustable)	
Frequency	50 / 60 Hz	
Type of grid	TT / TN / IT	
Power Factor adjustable	Yes, 0 - 1 (leading / lagging)	

EFFICIENCY

Maximum efficiency	98.2%	98.3%
Euroefficiency	97.5%	97.7%

GENERAL INFORMATION

Refrigeration system	Natural cooling	Forced ventilation
Consumption at night	< 15 W	
Ambient temperature	-25°C to 60°C	
Relative humidity (non-condensing)	0 - 100 %	
Protection class	IP66	
Marking	CE	
Acoustic emissions	< 35 dB	< 50 dB
Max. Operating altitude	4,000 m	
EMC and security standards	EN IEC 61000-3-11:2019, EN IEC 61000-6-2:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-4:2019, EN 62920:2017+A11, IEC61000-3-12:2011/AMD1, EN 62109-1:2010, EN 62109-2:2011, IEC 62109-1:2010, IEC 62109-1:2011, EN IEC 61000-6-1:2029	
Grid connection standards	IEC 61727:2004; IEC 62116:2014; EN 50549-1:2019; EN 50549-2:2019; UNE 217002:2020; NTS SEPE 2.1 type B; CEI 0-21 V1 November 2022; CEI 0-16 V1 November 2022; VDE-AR-N 4105, RD647:2020, RD244:2019, DRRG/DEWA 2023	

Notes

⁽¹⁾ The maximum voltage that the equipment can withstand without damage is 1100V. The range of DC input voltages for grid connection is the MPPT range.

⁽²⁾ If only one input is to be used for each MPPT. If both inputs of an MPPT are used, the sum of the currents must not exceed the MPPT's maximum current.

⁽³⁾ In Spain, according to Spanish regulations, the maximum active power will be the same as the nominal power.

⁽⁴⁾ The output voltage and frequency range may vary depending on different grid codes. Specifications are subject to change without prior notice.

Integrated elements

DC switch	✓
Anti-islanding protection	✓
AC overcurrent protection	✓
AC short-circuit protection	✓
DC reverse connection	✓
DC & AC surge arresters, type II	✓
Insulation detection	✓
Leakage current protection	✓
Monitoring of the current of each string	✓

EUROPE

Ingeteam Power Technology, S.A.
Avda. Ciudad de la Innovación, 13
31621 Sarriñena (Navarra) - Spain
Tel.: +34 948 288 000
Fax: +34 948 288 001
e-mail: evc.energy@ingeteam.com

Ingeteam S.r.l.
Via Emilia Ponente, 232
48014 Castel Bolognese (RA) - Italy
Tel.: +39 0546 651 490
Fax: +39 054 665 5391
e-mail: italia.energy@ingeteam.com

Ingeteam SAS
140 Rue Carmin - Le Naurouze B
31670 Labège - France
Tel.: +33 (0)5 61 25 00 00
Fax: +33 (0)5 61 25 00 11
e-mail: france@ingeteam.com

Ingeteam, a.s.
Technologická 371/1
70800 Ostrava - Pustkovec
Czech Republic
Tel.: +420 59 747 6800
Fax: +420 59 732 6899
e-mail: czech@ingeteam.com

Ingeteam GmbH
Grand Bateau – Zollhof 6
D-40221 – Düsseldorf, Germany
Tel.: +49 (0) 211 78177950
e-mail: deutschland@ingeteam.com

Ingeteam Poland Spzoo
Ul. Koszykowa 60/62 m 39
00-673, Warsaw, Poland
Tel.: (+48) 22 821 99 30
e-mail: polska@ingeteam.com

Ingeteam LTD.
Unit 10 Gordano 19, Garonor Way, Portbury
Bristol, BS20 TXE - United Kingdom
Tel.: +44 (0) 331 630 0305

NORTH AMERICA

Ingeteam Inc.
3550 W. Canal St.
Milwaukee, WI 53208 - USA
Tel.: +1 (414) 934 4100 / +1 (855) 821 7190
Fax: +1 (414) 342 0736
e-mail: usa@ingeteam.com

Ingeteam Power Technology México S de RL de CV
Av. Ejército Nacional Mexicano 351,
Chapultepec Morales, Granada,
Miguel Hidalgo,
CP: 11520
Ciudad de México, CDMX
Tel.: (+52) 55 6586 9930
e-mail: proveedores.iptm@ingeteam.com

SOUTH AMERICA

Ingeteam Ltda.
Rua Estácio de Sá, 560
Santa Genebra
Campinas - SP
CEP: 13080-010; São Paulo - Brazil
Tel.: (+55) 19 30 37 37 73
e-mail: brazil@ingeteam.com

Ingeteam Chile SpA
Balmoral n.º 309, Piso 10º, Oficina 1008,
7561282 Las Condes
Santiago, Chile
Tel.: (+56) 229 253 825
e-mail: chile@ingeteam.com

ASIA

Ingeteam Power Technology Shanghai, Co. Ltd.
Room 2606-F, No.360 South Pudong Road
China (Shanghai) pilot free trade zone
C.P 200120
Tel.: +86 139 1622 4886
e-mail: liu.yimin@ingeteam.com

Ingeteam India Pvt. Ltd.
Survey No. 111/1-111/3 & 111/5-111/7,
Village No.155, Mambakkam Village,
Chennai - Bangalore Main Road,
Sriperumbudur Taluk,
Kancheepuram District - 602106,
Tamilnadu, India

Ingeteam Power Technology S.A. UAE Branch
Al Bateen tower c6 Bainunah 1st floor
Street 34
Abu Dhabi - UAE
Tel.: +971 2 207 6666

Ingeteam Power Technology S.A.
Thailand representative office
100/67 Vongvanij B Building, 22nd floor,
Rama IX Road., HuayKwang,
10320 Bangkok
Te.: +66 22461798
e-mail: Thailand.pga@ingeteam.com

AUSTRALIA

Ingeteam Australia Pty Ltd.
Iacelerate Centre, Building 239
Innovation Campus, Squires Way
North Wollongong, NSW 2500 - Australia
Tel.: +61 429 111 190
e-mail: australia@ingeteam.com

Ingeteam

www.ingeteam.com