

**MAXIMUM
EFFICIENCY WITH
MULTI-MPPT
THREE-PHASE
TECHNOLOGY**

40TL U M480

A three-phase inverter family for residential, commercial and large-scale PV plants. It integrates an arc fault circuit interruption system (AFCI).

Maximum efficiency with 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 MPPT 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 country-specific configuration and language can be easily selected from the inverter screen.

Rugged design

Steel casing, especially designed for in-door and outdoor applications (NEMA 4). It with stands extreme temperatures. The 3Play inverters have been designed to guarantee a long life expectancy.

Ease of maintenance

Internal datalogger for up to 3 months data storage. Control either from a remote PC or on-site from the inverter front keypad. Status and alarm LED indicators. LCD screen. Integrated DC arc-fault circuit interruption system.

Easy to operate

The INGECON® SUN 3Play TL U M inverters feature a LCD screen for the simple and convenient monitoring of the inverter status and a range of internal variables. The display also includes three LEDs to show the inverter operating status. All this helps to simplify and facilitate maintenance tasks.

Software included

Included at no extra cost are the INGECON® SUN Manager, INGECON® SUN Monitor and its smartphone version Web 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 SD memory card. RS-485 communications are supplied as standard.

Standard 10 year warranty, extendable for up to 20 years



40TL U M480

A versatile equipment

The INGECON® SUN 3Play TL U M inverters integrate an arc-fault circuit interruption system.

The standard inverter features a double MPPT input with terminal blocks. It also integrates DC and AC surge arresters, type 3 and DC surge arresters, type 2.

Easy rooftop installation

Vertical or horizontal mounting, enabling the location of the inverter next to the PV modules and avoiding the installation of any additional rapid shutdown device.

MAIN FEATURES

- AFCI (Arc Fault Circuit Interrupt).
- Double-MPPT System.
- Easy rooftop installation.
- 98.5% maximum efficiency.
- Inverter firmware updating by the user through a SD memory card.
- Software INGECON® SUN Manager for PV plant access and data registration.
- Software INGECON® SUN Monitor for PV plant monitoring.
- LCD display.
- RS-485 communications supplied as standard.
- Display-configurable potential-free contact, to indicate insulation fault or grid connection.
- Plug & Play technology.
- Suitable for indoor and outdoor installations (NEMA 4).

- High temperature performance. Rated power up to 124 °F.
- Language, rated voltage and Country Code configurable by display.

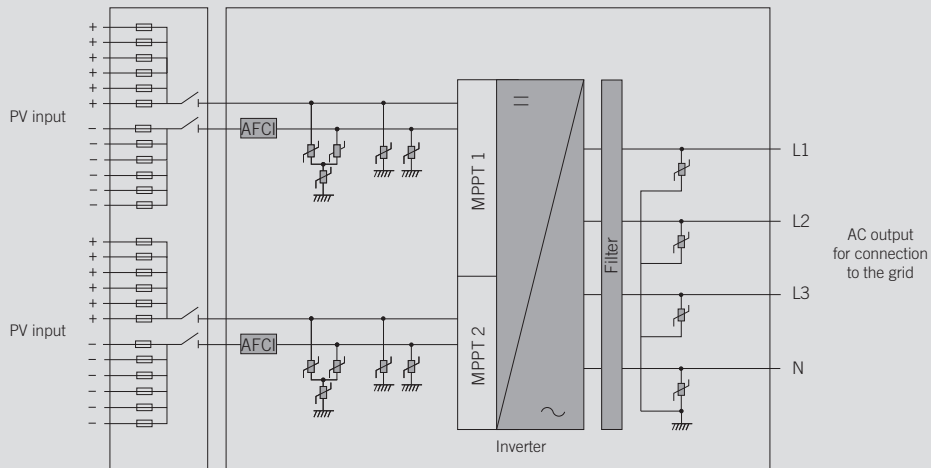
PROTECTIONS

- DC surge arresters, type 2.
- Reverse polarity.
- DC arc-fault circuit interruption.
- Shortcircuits and overloads at the output.
- Anti-islanding with automatic disconnection.
- Insulation faults.

OPTIONAL ACCESSORIES

- Inter-inverter communication via Ethernet, Wi-Fi.
- INGECON® SUN EMS Board.
- Combiner Box with DC fuses and DC switch.

3Play TL U M (40 kW)



Combiner Box

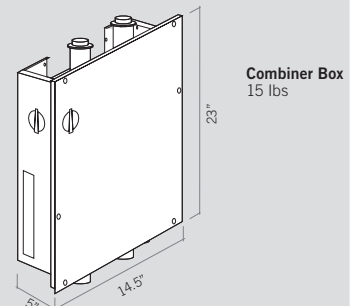
The Combiner Box is supplied with four or six inputs per MPPT with fuses on each pole and a DC switch. It can be located immediately under the PV inverter or in a different place.

COMBINER BOX MAIN FEATURES

- DC switch.
- 2 MPPTs (6 inputs / MPPT).
- 6 fuses per pole.
- Max. short-circuit current per input: 12 A.
- Max. current per MPPT: 40 A.



Size and weight (inches)

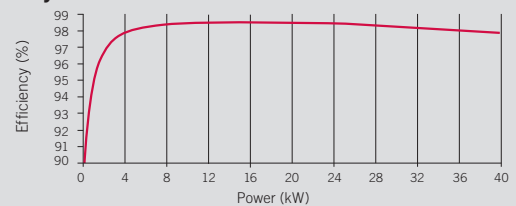


40TL U M480

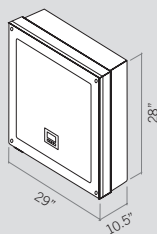
| Input (DC) | |
|---|--|
| Recommended PV array power range ⁽¹⁾ | 41.2 - 53.6 kW |
| Voltage range MPP1 ⁽²⁾ | 200 - 820 V |
| Voltage range MPP2 ⁽²⁾ | 200 - 820 V |
| Maximum voltage ⁽³⁾ | 1,000 V |
| Maximum current (Input 1 / Input 2) | 40 / 40 A |
| Inputs (Input 1 / Input 2) | 1 / 1 |
| MPPT | 2 |
| Output (AC) | |
| Rated power | 40 kW |
| Temperature at rated power ⁽⁴⁾ | 124 °F |
| Maximum current | 48 A |
| Rated voltage | 480 V |
| Frequency | 60 Hz |
| Power Factor ⁽⁵⁾ | 1 |
| Power Factor adjustable ⁽⁶⁾ | Yes. Smax=40 kVA; Qmax=24 kVAR |
| THD | <3% |
| Efficiency | |
| Maximum efficiency | 98.5% |
| CEC - Weighted efficiency | 98% |
| General Information | |
| Refrigeration system | Forced ventilation |
| Air flow | 400 m³/h |
| Stand-by consumption ⁽⁶⁾ | 10 W |
| Consumption at night | 1 W |
| Ambient temperature | -13 °F to 149 °F |
| Relative humidity (non-condensing) | 0 - 100% |
| Protection class | NEMA 4 |
| DC AFCI | ✓ |
| Marking | CE, ETL |
| EMC and security standards | UL1741, FCC Part 15, IEEE C37.90.1, IEEE C37.90.2, CSA22.2 No107 |
| Grid connection standards | IEC 62116, UL1741, IEEE1547, IEEE1547.1, NEC CODE, CSA22.2 No107 |

Notes: ⁽¹⁾ Depending on the type of installation and geographical location ⁽²⁾ The output power will be conditioned by the voltage and current configuration selected at each input ⁽³⁾ Must not be exceeded under any circumstances. Consider the voltage increase of the 'Voc' at low temperatures. ⁽⁴⁾ The output power will be reduced at the rate of 1% for each 1 °F of increase. ⁽⁵⁾ For Pout>25% of the rated power ⁽⁶⁾ Q=0 outside the voltage range MPP ⁽⁷⁾ Consumption from PV field.

Efficiency INGECON® SUN 40TL M480 Vdc = 720 V



Size and weight (inches)



40TL U M
137.8 lbs



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