



## TS4-A-O

### Module-level PV Optimizer

The TS4-A-O (Optimization) is the advanced add-on optimization solution that brings smart module functionality to standard PV modules for higher reliability. Improve energy efficiency by upgrading underperforming PV systems or adding smart features to new installations.

The TS4-A-O complies with NEC 2017 and 2020 690.12 Rapid Shutdown specifications when installed on each module and accompanied by the Tigo Access Point (TAP) and the Cloud Connect Advanced (CCA). Module-level DC production data, as well as data from other Modbus connected devices, can be analyzed via Tigo's Energy Intelligence Software when connected to the cloud.

The TS4-A-O with UHD-Core technology and expanded specifications supports PV modules up to 700W, and 15A.

### Included Features



Module-level **optimization** for increased energy yield and greater design flexibility



Manual or automatic module-level **shutdown**. Complies with NEC 2017 and 2020.



Module-level **monitoring** for energy production tracking and system management

### Easy Installation

Snap to standard module frame or remove clips for rack mounting

### Smart Commissioning

Configure and commission with your Android or iOS mobile device



# TS4-A-O SPECIFICATIONS

## Environmental

Operating Temperature Range -40°C to +70°C (-40°F to +158°F)

Outdoor Rating IP68, NEMA 3R

Maximum Elevation 2000m

## Mechanical

Dimensions W=138.4mm, L= 139.7mm, H= 22.9mm

Weight 520g

## Electrical

Max Input Voltage (V<sub>OC</sub> @ Lowest Temperature) 80V

Input Voltage Range 16 - 80V\*

Maximum Cont. Current (I<sub>max</sub>) 15A

Maximum Short Circuit Current (I<sub>sc</sub>) 20A

Maximum Power 700W

Cable Length (in/out) 0.12/1.2m (standard), 0.62/1.2m (optional)

Connectors MC4 (standard), EVO2 (optional)

Communication Type Wireless

Recommended Fuse Rating 30A

Rapid Shutdown Time Limit 30 secs or less\*\*

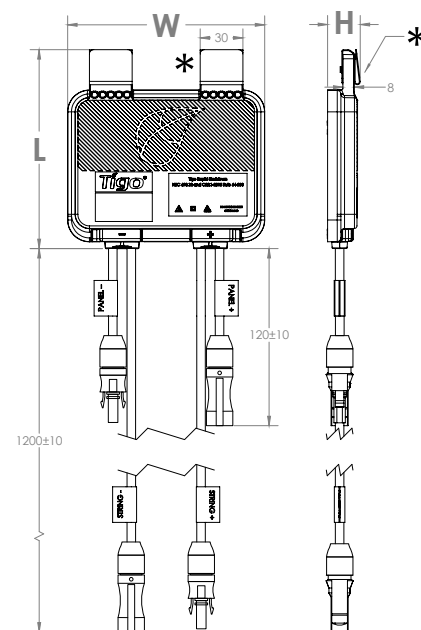
Conductor AWG Range 10-12 AWG

PVRSE Controlled Conductors ≤30 Vdc, ≤240VA, ≤8A\*\*

TAP required for module-level shutdown and CCA required for monitoring with TS4-A-O.

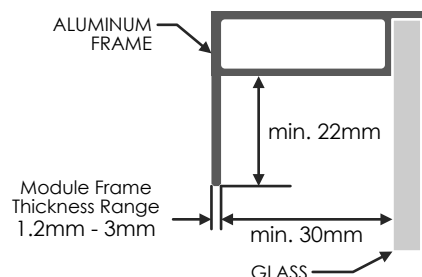
\*V<sub>MOD MAX</sub> of the connected panel = TS4-A-O V<sub>DCU MAX</sub>

\*\*Limits are based on NEC 690.12 rapid shutdown requirements.



\*Clips can be removed for rack mounting

Module frame specifications for mounting TS4-A



## ORDERING INFORMATION

461-00252-32 TS4-A-O, 15A, 700W, 1500VUL/1000V IEC, 1.2M Cable, MC4

461-00252-62 TS4-A-O, 15A, 700W, 1500VUL/1000V IEC, 0.62/1.2M Cable, MC4

461-00261-62 TS4-A-O, 15A, 700W, 1500VUL/IEC, 0.62/1.2M Cable, EVO2

461-00261-32 TS4-A-O, 15A, 700W, 1500VUL/IEC, 1.2M Cable, EVO2

462-00252-32 TS4-A-O, 15A, 700W, 1000VIEC, 0.12/1.2M Cable, MC4

462-00252-62 TS4-A-O, 15A, 700W, 1000VIEC, 0.62/1.2M Cable, MC4

462-00261-32 TS4-A-O, 15A, 700W, 1500VIEC, 0.12/1.2M Cable, EVO2

462-00261-62 TS4-A-O, 15A, 700W, 1500VIEC, 0.62/1.2m Cable, EVO2

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## For technical info:

Visit [support.tigoenergy.com](http://support.tigoenergy.com)

For additional info and product selection assistance, use Tigo's online design tool at [tigoenergy.com/design](http://tigoenergy.com/design)



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