



## 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

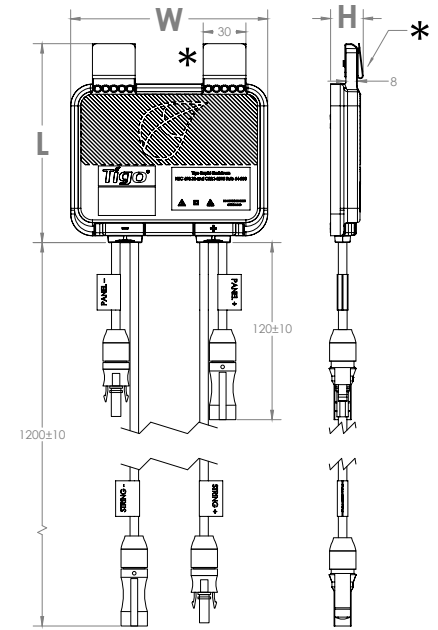
## Electrical

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.

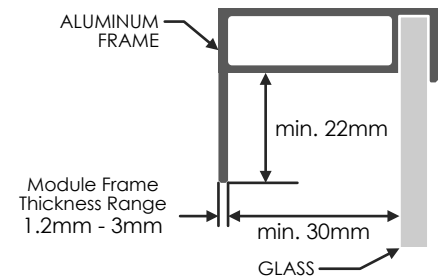
\*V<sub>MOD MAX</sub> of the connected panel = TS4-A-O V<sub>DCU MAX</sub>

\*\*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

Standard	Description
461-00252-32	15A, 700W, 1500VUL/1000V IEC, 1.2M Cable, MC4
Options	Description
461-00252-62	15A, 700W, 1500VUL/1000V IEC, 0.62/1.2M Cable, MC4
461-00261-62	15A, 700W, 1500VUL/IEC, 0.62/1.2M Cable, EVO2
461-00261-32	15A, 700W, 1500VUL/IEC, 1.2M Cable, EVO2



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