



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 |

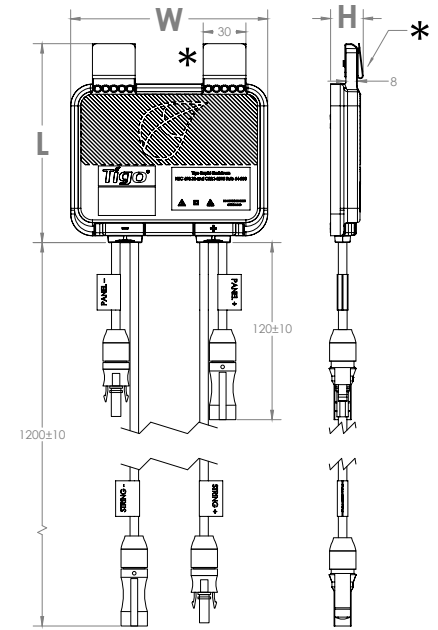
Electrical

| | |
|--|--|
| Max Input Voltage (V _{OC} @ Lowest Temperature) | 80V |
| Input Voltage Range | 16 - 80V* |
| Maximum Cont. Current (I _{max}) | 15A |
| Maximum Short Circuit Current (I _{sc}) | 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.

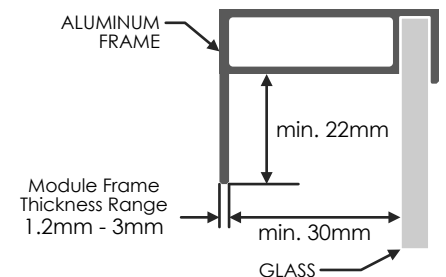
*V_{MOD MAX} of the connected panel = TS4-A-O V_{DCU MAX}

**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

For additional info and product selection assistance, use Tigo's online design tool at tigoenergy.com/design

