



## TS4-A-O

### PV Module Advanced Add-On

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 with UHD-Core technology and expanded specifications supports PV modules up to 500W.

#### Included Features



Optimization

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



Safety

Enhanced **safety** for NEC 690.12 rapid shutdown compliance



Monitoring

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

#### Easy Installation

Snap to standard module frame or remove brackets for rack mounting

#### Smart Commissioning

Configure and commission with your Android or iOS mobile device



# TS4-A-O SPECIFICATIONS

## Environmental

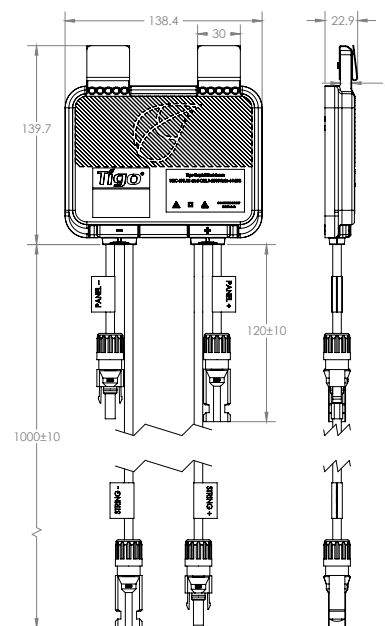
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Outdoor Rating	IP68, NEMA 3R

## Mechanical

Dimensions	138.4mm x 139.7mm x 22.9mm
Weight	520g

## Electrical

Total Max Input Voltage (V <sub>OC</sub> @ Lowest Temperature)	90V
Voltage Range	16 - 90V
Maximum Current	12A
Maximum Power	500W
Output Cable Length	1.2m (standard)
Connectors	MC4 (standard)
Communication Type	Wireless
Rapid Shutdown UL Listed (NEC 2014 & 2017 690.12)	Yes
Recommended fuse rating	15A



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

*Photovoltaic Rapid Shutdown Equipment NEC 690.12 and C22.1-2015 Rule 64-218  
This rapid shutdown system is required to be connected to an automatic system  
which initiates rapid shutdown upon the activation of the AC system disconnect.*

## ORDERING INFORMATION

### Standard

451-00252-32 1500V UL / 1000V TÜV, 1.2m cable, MC4

### Options

451-00257-12 1000V UL / TÜV, 1.2m cable, MC4 comparable

451-00252-12 1500V UL / 1000V TÜV, 1m cable, MC4

451-00261-32 1500V UL / TÜV, 1.2m cable, EVO2

### For sales info:

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### For product info:

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