

# TS4-O

## Optimization



TS4-O is one of 5 functional covers that pairs with an integrated modular junction box base (TS4-B), a single retrofit/add-on base (TS4-R-O), or a dual retrofit/add-on base (TS4-R-O-Duo).

### Features

- Increased energy yield
- Greater design flexibility
- Shade and age tolerance
- Maximized roof usage

Plus all the benefits of Safety:

- NEC 690.12 Rapid Shutdown compliance
- Module-level deactivation

Plus all the benefits of Monitoring:

- Reduced O&M costs
- Module barcode tracking
- Fleet management

### Increase your energy harvest

In an unshaded system, Tigo optimization increased energy harvest by 3%.<sup>1</sup>

In a shaded system, recover 36% of energy that would have been lost due to mismatch.<sup>2</sup>

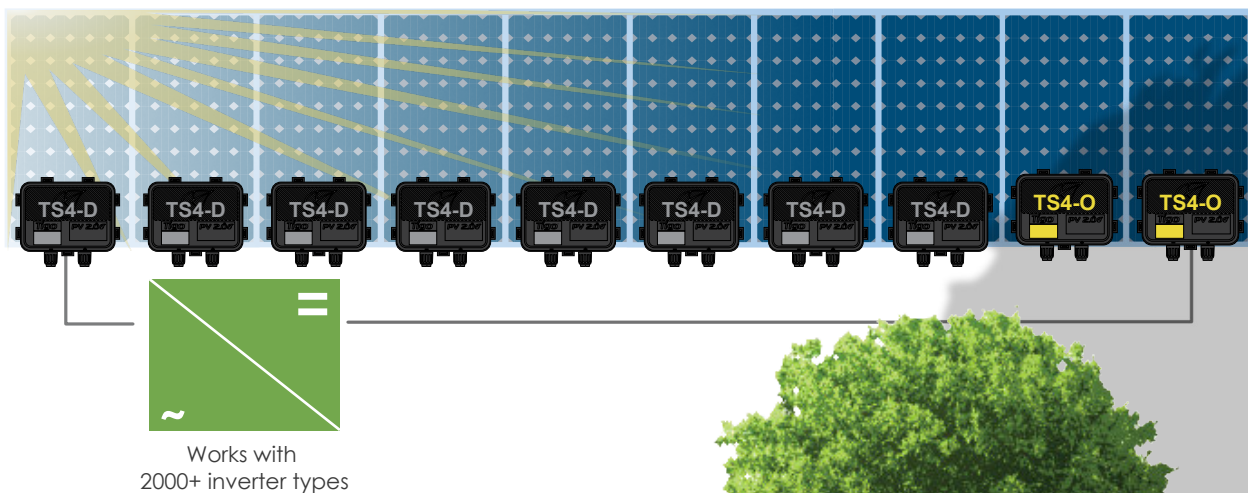
### Design flexibility

Design using unequal string lengths and mixed orientations.

Install into shaded areas with a reduced setback ratio.

Optimize only where needed with selective deployment.<sup>3</sup>

Optimize only where needed<sup>4</sup>



\*1) Photon lab report  
2) NREL report  
3) For residential systems  
4) Selective deployment of optimization is intended for systems with a single string per MPPT. Use 100% deployment of optimization on parallel strings connected to the same MPPT. Rapid shutdown compliance requires 100% deployment of at least TS4-S



# Meet any projects' needs with the TS4 covers

Tigo has expanded its smart module platform to provide five levels of customization. TS4 increases your freedom of choice by allowing you to select the right features for each project and budget.

## ELECTRICAL RATINGS

INPUT	
Rated DC Input Power	475W
Maximum Input Voltage @ Lowest Temperature	90V
Maximum Short Circuit Current ( $I_{sc}$ )	12A
Maximum $V_{oc}$ @ STC	75V
Minimum $V_{MP}$ @ STC	16V
OUTPUT	
Output Power Range	0 - 475W
Output Voltage Range	0 - $V_{oc}$
Rapid Shutdown UL Certified (NEC 2014 & 2017 690.12)	Yes
Impedance Matching Capability	Yes
Output Voltage Limit	No
Maximum System Voltage	1500V
Maximum Series Fuse Rating	15A

Cloud Connect and Gateway required for rapid shutdown compliance.

### For sales info:

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### For product info:

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