

## OPTI-0.3-TL

### GENERAL SPECIFICATIONS OUTDOOR MODELS

OPTI-0.3-TL-OUTD  
OPTI-0.3-TL-OUTD-US

Power-One's new Optimizer products use DC-to-DC technology to help maximize the energy harvested from solar installations.

Normally, within each array, the solar panels are usually joined together in a serial pattern. This creates issues if one panel fails as this reduces the energy being produced by the entire installation. The Optimizer maximizes the energy from each module within a string as they 'optimize' the voltage/current for any given weather conditions.

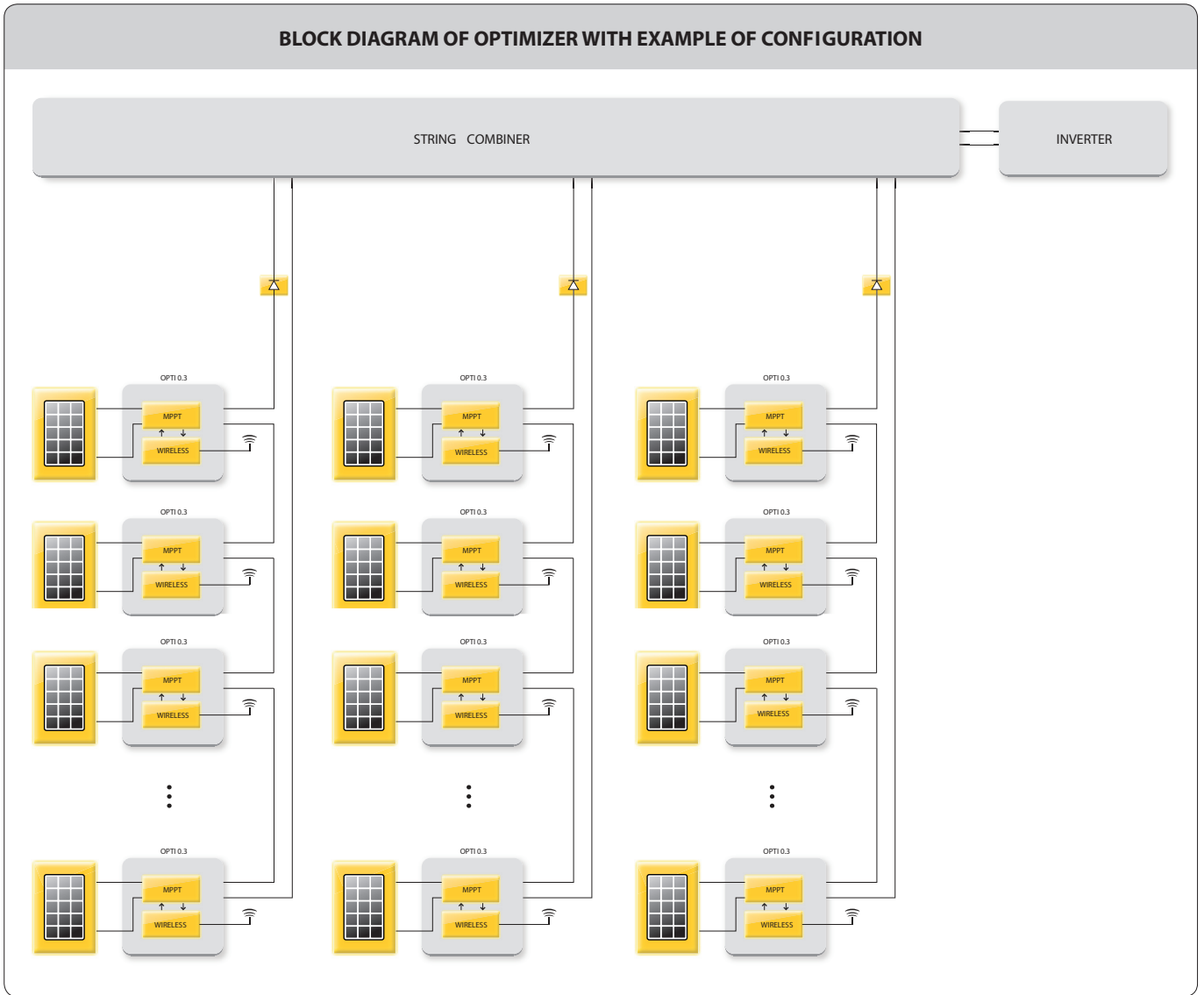
The Optimizer also maximizes energy harvesting in panels suffering from partial or temporary shading. This helps installers to create the largest installations possible and increase Return on Investment (ROI).



## Features

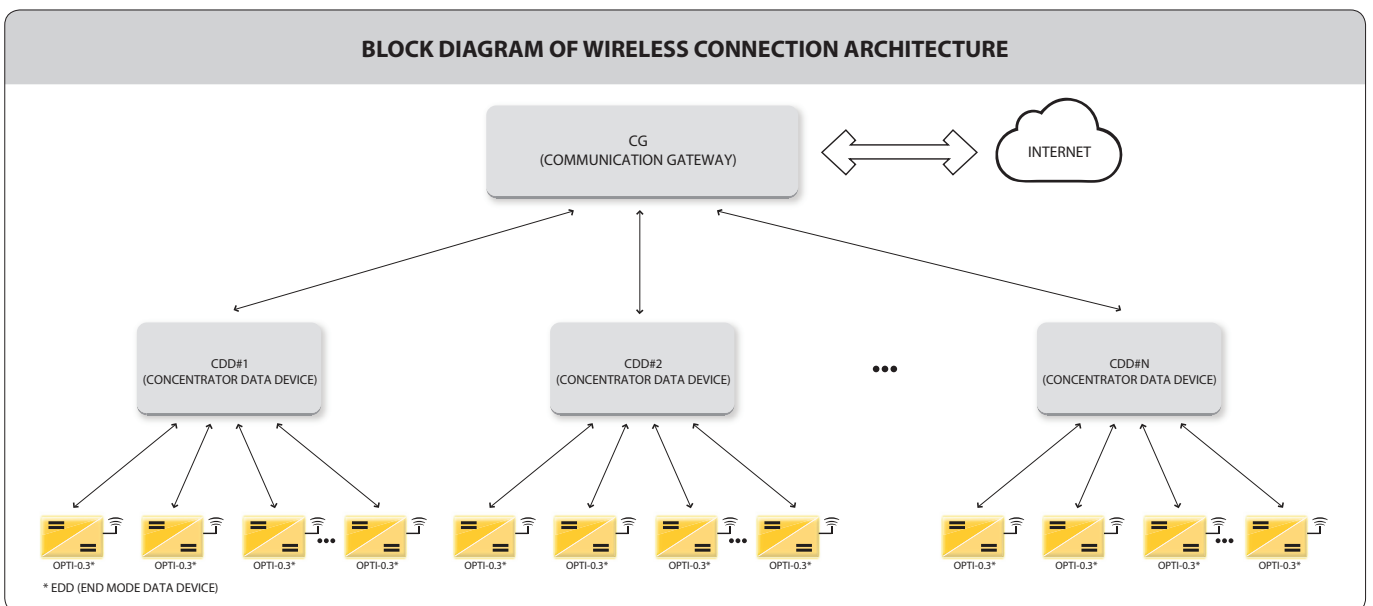
- Ability to mitigate PV panel mismatch
- High efficiency up to 99.5%
- Single panel MPP tracker compatible with all Power-One inverter models
- Ease of installation by the implementation of a package inclusive of proprietary wireless data communication
- Temperature hardened construction

## BLOCK DIAGRAM OF OPTIMIZER WITH EXAMPLE OF CONFIGURATION



## Block Diagram

### BLOCK DIAGRAM OF WIRELESS CONNECTION ARCHITECTURE



PARAMETER	OPTI-0.3-TL-OUTD	OPTI-0.3-TL-OUTD-US
<b>Input Side</b>		
Maximum Input Power ( $P_{dcmax}$ )	300 Wp	300 Wp
MPP Input range ( $V_{MPPTmin} - V_{MPPTmax}$ )	20...60 V	20...60 V
Absolute Maximum Input Voltage ( $V_{max,abs}$ )	65 V	65 V
Maximum Input Current ( $I_{dcmax}$ )	10.0A	10.0A
Number of DC Inputs Pairs	1	1
DC Connection Type	Tool Free PV connector WM / MC4	Tool Free PV connector WM / MC4
<b>Output Side</b>		
Maximum Output Power ( $P_{dcmax}$ )	300W	300W
Output Voltage Range ( $V_{dcmin} \dots V_{dcmax}$ )	20..60 <sup>(1)</sup> V	20..60 <sup>(1)</sup> V
Maximum Output Current ( $I_{dcmax}$ )	12.0 A	12.0 A
Output Reverse Polarity Protection	Yes	Yes
Output Over Voltage Protection	> 60 V	> 60 V
<b>Operating Performance</b>		
Maximum Efficiency ( $\eta_{max}$ )	98.0 %	98.0 %
Pass Through Efficiency ( $\eta_{pt}$ )	99.3%	99.3%
Weighted Efficiency ( $\eta_{EURO} / \eta_{CEC}$ )	98.2% / 98.0%	98.2% / 98.0%
<b>Communication</b>		
Remote Control (Data logger; On/Off; Upgrade)	Wireless	Wireless
User Interface	Not applicable	Not applicable
<b>Environmental</b>		
Ambient Temperature Range	-40...+65°C / -40...169°F	-40...+65°C / -40...169°F
Relative Humidity	0...100% condensing	0...100% condensing
Noise Emission	< 30 db(A) @ 1 m	< 30 db(A) @ 1 m
Operating Altitude	2000 m / 6560 ft	2000 m / 6560 ft
<b>Physical</b>		
Environmental Protection Rating	IP 65	NEMA 4X
Cooling	Natural	Natural
Dimension (H x W x D)	158mm x 169mm x 28.6mm / 6.2" x 6.65" x 1.12"	158mm x 169mm x 28.6mm / 6.2" x 6.65" x 1.12"
Weight	< 0,6 kg / 1,32 lb	< 0,6 kg / 1,32 lb
<b>Safety</b>		
Marking	CE	cCSAus
Safety and EMC Standard	EN 61000-6-2, EN 61000-6-3, FCC Part15 Class B, EN 50178	EN 61000-6-2, EN 61000-6-3, FCC Part15 Class B, UL 1741
<b>Available Products Variants</b>		
Standard	OPTI-0.3-TL-OUTD	OPTI-0.3-TL-OUTD-US

1. Adjustable via wireless connection



[www.power-one.com](http://www.power-one.com)

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