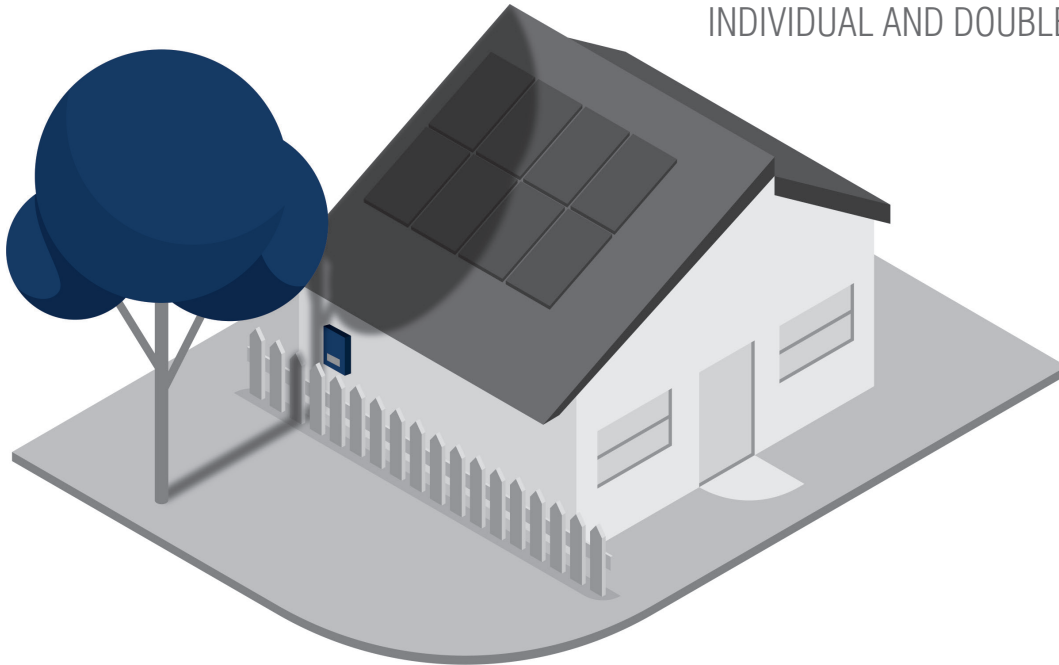
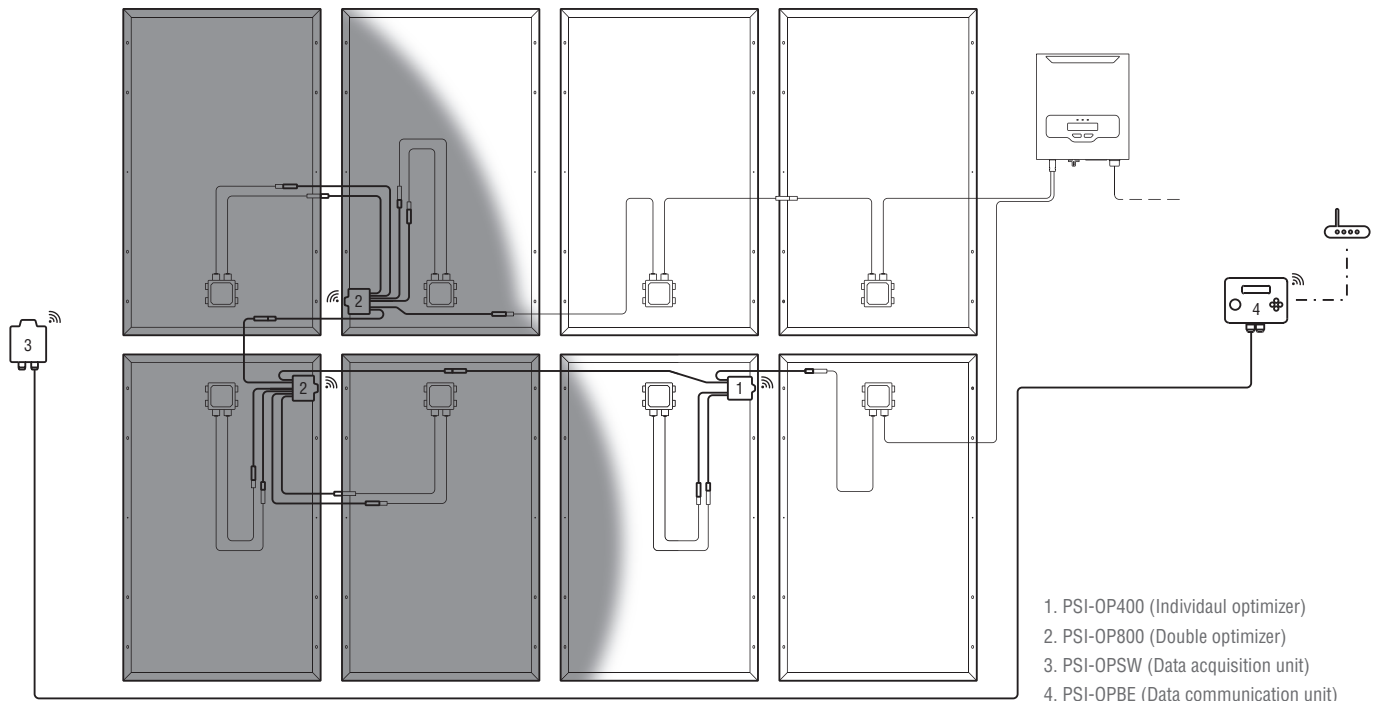


# POWER OPTIMIZERS

## INDIVIDUAL AND DOUBLE OPTIMIZERS

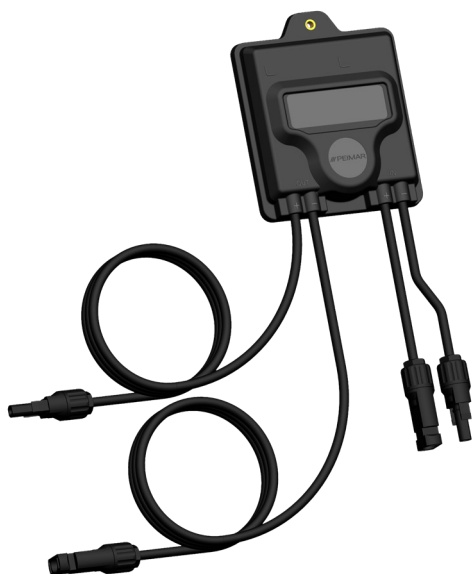


### APPLICATION EXAMPLE



[www.peimar.com](http://www.peimar.com)





# PSI-OP400

## INDIVIDUAL OPTIMIZER

### PRODUCT FEATURES

- Full compatibility with modules with up to 450W
- MPP Tracking of each individual panel, up to 5-25% more energy efficiency in case of shading or high mismatching between modules
- Real-time panel monitoring with timely alerts
- Secure PV system with centralized shutdown and zero Volt string voltage
- Optimizer compatible with different types of inverters and panels, for new or existing plants and with most inverters on the market
- Flexible PV system design for better use of available space
- Can be installed according to the needs together with the version for double panel (PSI-OP800)
- Autonomous optimization, independent of communication
- Use of the optimizer only where necessary

### INPUT

Maximum power at input  
Maximum input voltage  
Maximum current in input  
Voltage range of MPPT

### PSI-OP400

450 W  
75 V  
13 A  
12 - 70 V

### OUTPUT

Maximum power at output  
Range of output voltage  
Maximum current at output  
System voltage  
Communication (to PSI-OPSW receiver)

450 W  
0 - 75 V  
13 A  
1500 Vcc  
Wireless

### EFFICIENCY

Maximum efficiency of conversion

99.6 %

### MECHANICAL CHARACTERISTICS

Installation

Fixing to frame profile or panel frame by means of M5 screw  
(excluded from supply)

Dimensions

130.3 x 109.6 x 25 mm

Weight

588 g

Input / output connectors

MC4 or compatible connectors

Range of operation temperature

From -40°C to 85°C

Relative humidity

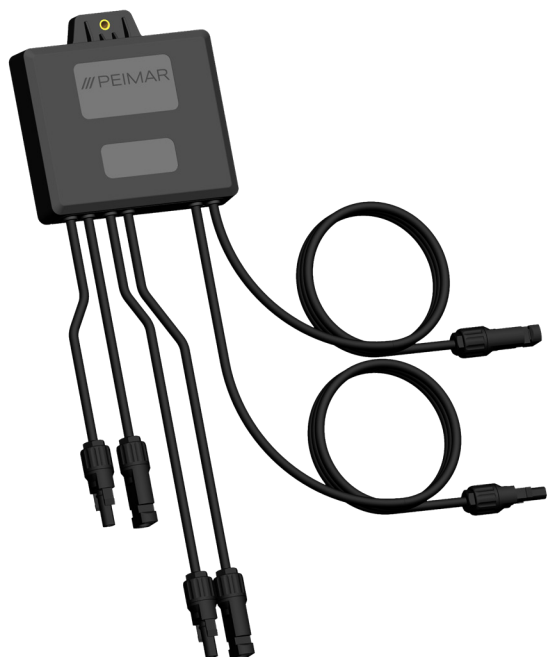
0 - 100%

Protection degree

IP68

Warranty

10 Years



# PSI-OP800

## DOUBLE OPTIMIZER

### PRODUCT FEATURES

- Full compatibility with 2 modules up to 450W of power each
- MPP tracking of each pair of panels, up to 5-25% more energy efficiency in case of shading or high mismatching between modules
- Real-time monitoring of individual panels with timely alerts
- Secure PV system with centralized shutdown and zero Volt string voltage
- Optimizer compatible with different types of inverters and panels, for new or existing plants and with most inverters on the market
- Flexible PV system design for better use of available space
- Autonomous optimization, independent of communication
- Use of the optimizer only where necessary

### INPUT

Modules supported	2
Maximum input voltage (2 modules in series)	150 V
MPPT voltage range (2 modules in series)	13 - 140 V
Maximum current input	13 A

### PSI-OP800

### OUTPUT

Maximum power at output	900 W
Range of output voltage	0 - 150 V
Maximum current at output	13 A
System voltage	1500 Vcc
Communication (to PSI-OPSW receiver)	Wireless

### EFFICIENCY

Maximum efficiency of conversion	99.6 %
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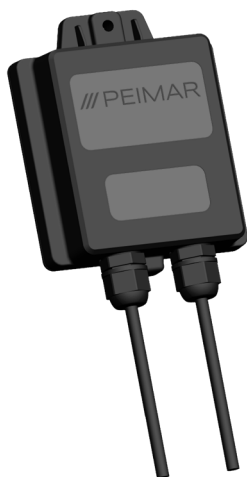
### MECHANICAL CHARACTERISTICS

Installation	Fixing to frame profile or panel frame by means of M5 screw (excluded from supply)
Dimensions	130 x 132 x 24.5 mm
Weight	765 g
Input / output connectors	MC4 or compatible connectors
Range of operation temperature	From -40°C to 85°C
Relative humidity	0 - 100%
Protection degree	IP68
Warranty	10 Years

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# PSI-OPSW



## DATA ACQUISITION UNIT

### PRODUCT FEATURES

- Wireless receiver for communication with on-board photovoltaic panel optimizers
- RS485 and wireless communication method
- Secure and stable communication for up to 200 optimizers

### ELECTRICAL CHARACTERISTICS

	PSI-OPSW
Operating voltage	12 Vcc (direct power supply from PSI-OPBE)
Working current	25 mA
Consumption	≤ 0.3 W
Connections	2 x RS485 (for connection to PSI-OPBE and PSI-OPSW) Cable gland type PG7 for cable with diameter from 4 to 8 mm
Wireless reception distance	(From PSI-OPSW to PSI-OP400/PSI-OP800) ≤ 50 m
Wireless transmission	915 MHz / 2.4 GHz
Number of optimizers supported	≤ 200 Pz

### MECHANICAL CHARACTERISTICS

Installation	Fixing to frame profile or panel frame by means of M5 screw (included in the package)
Dimensions	124 x 99 x 32 mm
Weight	155 g
Range of operation temperature	From -40°C to 85°C
Protection degree	IP65
Warranty	10 Years

# PSI-OPBE



## DATA COMMUNICATION UNIT

### PRODUCT FEATURES

- Power monitoring and production of each individual optimizer
- Secure communication, real-time capture and monitoring data recovery function
- Local or remote shut-off command if necessary
- Wi-Fi or Ethernet communication methods

### ELECTRICAL CHARACTERISTICS

	PSI-OPBE
Operating voltage	12 Vcc (230 Vca - 12 Vcc power supply included)
Working current	250 mA
Consumption	≤ 3 W
Input connection	RS485 (PSI-OPSW connection)
Outgoing connections	RS485 (Modbus connection to third-party components) - RJ45 (ethernet network connection) Satellite (included, for Wi-Fi connection) - USB 2.0 (for direct data download)
Connected optimizers	≤ 1000 pz (200 for each PSI-OPSW)
Connected PSI-OPSW	≤ 5 pz

### MECHANICAL CHARACTERISTICS

Installation	Wall mounting with 2 back holes (11 cm wheelbase)
Dimensions	158 x 113 x 36.8 mm
Weight	300 g
Range of operation temperature	From -20°C to 60°C
Protection degree	IP20
Warranty	10 Years